

## THESIS

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### TITLE:

Multiple Intelligences and Teaching English as a Foreign Language  
The Case of Second -Year Pupils at Malika Gaid Secondary School  
Sétif

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## Dedication

I dedicate this thesis to my family and friends. A special feeling of gratitude goes to Mrs.Cheriet, head of Mentally Retarded Children School (Assafir El Djenna-Sétif) who allowed us to observe, discuss with and video her students in class.

I also dedicate this work to Alison Oswald who supported me through her website with adequate MI based materials, and to Margaret Warner who proofread the poetry materials and supported it with a foreword. I will always appreciate all they have done.

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## Abstract

The purpose of this study is twofold. Firstly, it aims to examine whether implementing Multiple Intelligences theory would enhance students' comprehension of the English teaching materials. Secondly, it strives to discover whether there is a relationship between Linguistic Intelligence and linguistic proficiency. To meet the first purpose, we have used two questionnaires A and B: one for the pupils and the other for the teacher. The questions in questionnaire A are framed so as to allow for statistical analysis of the pupils' answers and to get a feedback of quantitative nature. Questionnaire B comprises a number of open-ended questions to allow for more unstructured commentary on the part of their teacher and to get a feedback of qualitative nature. The second purpose was achieved through the use of McKenzie's (1999) multiple intelligences inventory. The sample of the first purpose consisted of thirty four pupils. They were administered questionnaire A to assess their level of comprehension of the material presented through the Multiple Intelligences Theory and their teacher's performance. After the presentation of this material, the results revealed that students' ability to comprehend the teaching material improved considerably: The questionnaire revealed that 90.01 % of the population favored the MI based lesson plans over the traditional ones. The teacher's reply to the questionnaire showed that the MI based material did enhance the pupils' motivation, facilitated the teacher's task and resulted in better results. The sample of the second purpose was one hundred secondary school pupils. They were given the Multiple Intelligences Inventory to diagnose the pupils who have a high level of Linguistic Intelligence. Next, we have calculated the mean of the marks each pupil has had during the whole academic year, separating the high from the middle and low achievers. Afterwards, we have compared the marks of the high English language achievers with their Linguistic Intelligence level to see whether there is a relationship between Linguistic Intelligence and their achievement. McKenzie's (1999) multiple intelligences inventory

enabled us to understand that English language learning is intrinsically related to Linguistic Intelligence. It showed that 80.39 per cent of the pupils who got good marks in English examinations had strong Linguistic Intelligence. In addition to the main aim of this research work, two salient objectives have been reached: (a) A new teaching approach labeled ECPTA (Ending Classroom Prescribed Teaching Approaches) which takes into account the cultural background of the learner, and (b) new intelligences which respect Gardner's (2003) criteria: (a) the existence of idiot savants, prodigies and other exceptional individuals (b) an identifiable core operation or set of operations, and (c) an evolutionary history and evolutionary plausibility.

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## List of Abbreviations

Abbreviations	Meaning	page
MI	Multiple Intelligences	02
EFL	English as a Foreign Language	05
IS	Intelligence System	08
BEM	Brevet d'Enseignement Moyen	64
BBB	Breaking the car, Breaking through and Breaking free	68
S-R	Stimulus- Response	73
NLP	Neuro Linguistic Programming	83
VAK	Visual , Auditory and Kinesthetic	87
MRI	Magnetic Reasoning Imaging	90
EEG	Electroencephalogram	90
PET	Scan check	90
CAT	Scanner check	90
fMRI	Functional magnetic reasoning image	93
PPP	Presentation, Practice and Production	109
LAD	Language Acquisition Device	130
LASS	Language Acquisition Support System	130
TL	Target Language	134
ECPTA	Ending Classroom Prescribed Teaching Approaches	146
CLT	Communicative Language Teaching	153
OBEMLA		191
IQ	Intelligence Quotient	
IEARN	The International Education and Resource Network	195
ATT	Advanced training technologies	196



MIDI	Musical Instrument Digital Interface	197
SIT	School of International Training (SIT)	198
ATMI	Association for Technology in Music Instruction	198
VCR	Video Cassette Recorder	199
IBM	International Business Machines	200
ACTFL	American Council on the Teaching of Foreign Languages	200
TOEFL	Test of English as a Foreign Language	233
CESL	Center for English as a Second Language	233
OPI	Oral proficiency interview	233
TOEIC	Test of English for International Communication	234
IELTS	International English Language Testing System	234
SOPI	The Simulated Oral Performance Interview	234
TSE	Test of Spoken English	235
CELS	Certificates in English Language Skills	235
PEPs	Projects, Exhibitions, and Presentations	239
B.S	Bachelor of Science	270
ISTE	International Society for Teacher Education	270
CoSN	Consortium for school networking	271
ED	Education	271
MassCUE	Massachusetts Computer Using Educators organization	271
NETS	National Educational Technology Standard	272
ASCD	Association for Supervision and Curriculum Development	273



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# Introduction

## 1 Overview

The extraordinary outpouring of scientific work on the mind and the brain, as well as on the thinking and learning process has given birth to new theories of learning which in their turn have led to very different approaches to the design of curricula, teaching and assessment. Teachers and many schools in developed countries, especially in the USA, have revolutionized their teaching operation by implementing new recent findings provided by neuroscience and psychology. Multiple Intelligences theory is one of them. It has conquered the teaching field, backed up the American 'No one left behind' education philosophy and strengthened the concept of individualized instruction. The situation in Algeria, unfortunately, is still at the back of the row in spite of the new nationwide implemented educational system. This system which is hugging the so called 'Competency Based Approach' seems to be insufficient to make of the Algerian learner an autonomous and self-reliant person capable of confronting the unexpected successfully. As an attempt to add a 'fortifying dose' to the presently implied educational system in Algeria, we have thought of enriching it with a cognitive dimension represented in Multiple Intelligences, a theory which is still in its infancy if compared to other theories. This theory was originated by Howard Gardner of Harvard University in 1983.

## 2 Statement of the Problem

One of the challenges in teaching lies in meeting the needs of a variety of learners; i.e., to provide each learner with 'the best shoe.' Unfortunately, in the Algerian context, a generic course is generally presented to the learners and a "one-size-fits-all" philosophy is imposed with little or no regard for individual differences and varied human intelligences.

Such a lack of regard for the individual's Multiple Intelligences has caused discomfort among learners which, in turn, has hampered the learning development.

### 3 Aim of Research

The central aims of this study are:

- a) to determine whether there is a relationship between Verbal/Linguistic Intelligence and the learning of English as a foreign language,
- b) to show teachers how to identify and incorporate Multiple Intelligences Theory in EFL class to reach better results.
- c) to provide support for Algerians teachers and educational authorities as they develop and implement innovative instructional and assessment strategies aligned with the Multiple Intelligences Theory.
- d) to use Multiple Intelligences Theory as a guide to develop classroom activities that address various ways of learning and as a tool to help learners identify and better understand their own strengths and learning preferences.

### 4 Research Questions

1. What is the conventional meaning of intelligence?
2. What is meant by Multiple Intelligences theory?
3. What is the relation between Linguistic Intelligence and learning a foreign language?
4. Does the implementation of MI theory enhance pupils' comprehension of English language materials?
4. How can we implement this theory in the EFL classroom to achieve better results?
5. How can we identify, document, and promote effective applications of the MI Theory in EFL settings?



## 5 Basic Assumptions

1. Pupils' performance in class and their results in tests during the academic year do say much about their intelligences.
2. Pupils' appraisal of their teachers' performance, the textbook and the MI based materials is the echo of how they perceive things, how they think and how they learn.
3. Adequate use of multiple intelligences activities strengthens students' intelligences.
4. The instruments we shall use in our study will allow us to better understand our students' intelligences and learning preferences.

## 6 Hypotheses

In this research work, three hypotheses are put forward:

1. Possessing a high level of linguistic intelligence may result in better English achievement.
2. If we empower pupils with linguistic intelligence, they will improve their linguistic proficiency in English.
3. If we teach poetry through MI theory, learners' comprehension of the teaching materials will be enhanced.

## 9 Key Words

MI theory was introduced by Howard Gardner in 1983. This theory accounts for nine separate intelligences. These intelligences are:

Verbal/Linguistic: ability to learn best through language including speaking, writing, reading, and listening

Logical/Mathematical: ability to learn best through numbers, reasoning, and problem solving.

Visual/Spatial: ability to learn best visually and organize thinking spatially.

Bodily-Kinesthetic: ability to learn best through physical activities such as hands-on tasks, constructing models, and any kind of movement.

Musical: ability to learn best through sounds such as songs, rhythms, and patterns.

Intrapersonal: ability to learn best through metacognitive practices such as getting in touch with one's feelings.

Interpersonal: ability to learn best through interaction with other people through discussions, cooperative work, or social activities.

Naturalistic: ability to learn best through the interactions with the environment including outdoor activities, field trips, and involvement with plants and animals.

Existential: the ability to be sensitive to, or being able to conceptualize or tackle questions about human existence, such as the meaning of life, why are we born, why do we die, etc.

## 10 Means of Research

The measuring instrument we shall use to achieve this study is Walter McKenzie's Multiple Intelligences Survey and two questionnaires. The survey evaluates to what degree a student is Verbal/Linguistic, Logical/Mathematical, Visual/ Spatial, Bodily-Kinesthetic, Musical, Interpersonal, Intrapersonal, Naturalistic, or Existential. The first questionnaire sets pupils to give feedback about the MI lessons they will attend. The second questionnaire allows the teacher to evaluate the MI lessons she will present, the pupils' performance and her own performance. The analysis of the sample's answers will be according to the scoring instructions of Walter McKenzie's Multiple Intelligences Survey and questionnaire A. Questionnaire B will be evaluated differently since it is of a qualitative nature. The presentation of the results, besides a narrative account, will be in the form of tables, a pie chart and a bar graph.

## 11 Structure of the thesis

This thesis is organized into two parts. The first part consists of six theoretical chapters that support the practical application part of the text. The latter includes two chapters: one deals with field work, and the other with the appropriate classroom activities which cater for the different intelligences. Original poems along with MI activities are presented to check their validity in enhancing English language learning.

So, the first chapter offers a theoretical framework that helps define the learning concept and provides information about the different learning theories dominating the education field at the present time. Decoding the true meaning of 'learning' represents a reliable and necessary bridge between language acquisition and Multiple Intelligences. It also relates to foreign language acquisition/learning theories and sheds light on behaviorism, cognitivism, Krashen's model, interlanguage, Universal Grammar, and acculturation. Some original comments are provided to enrich and get things clearer.

Chapter two is about the core of this study: Multiple Intelligences. It starts with some definitions of intelligence, presents an overview of traditional intelligence as found in various literature pieces, continues with a detailed description of Multiple Intelligences and ends with some original critics and suggestions of new intelligences.

The third chapter explores the implementation of Multiple Intelligences theory in the EFL classroom. It proposes a scope within which an application of the theory would result in efficient outcomes.

The fourth chapter highlights the different forms of language assessment that might be applied in the classroom. An overview and definitions is examined to clarify the meaning and applications of this umbrella term which is assessment.

The fifth chapter is devoted to the practical part of this research work. It covers the methods, the population, data gathering tools, administration of the tools, data analysis and summary of the results. Some suggestions and recommendations are provided to help teachers boost up learners' multiple intelligences.

The sixth chapter proposes some sample lesson plans with MI Components. A series of original poems along with adequate activities designed to incorporate the nine intelligences are suggested to support the plans. These activities are not meant to be spoonfed but to provide an adequate context where learning could occur through unique experiences that allow pupils to better understand their role as lifelong learners, and develop their multiple intelligences.

## Chapter One

### Learning Theories

#### Introduction

The concept of learning can never be indivisible from teaching or searching. Efficient teaching would certainly take place when the teacher knows what is meant by learning. It is only then can she/he understand the nature of output we expect the students to achieve. If for example, learning, in a given context, aims at preparing students to pass a large scale exam such as 'Baccalauréat or BEM', the teacher is bound to adopt an approach which copes with this goal and responds to the relevant learning process. If learning aims at preparing the student for the present and future life, then a different approach to teaching is to be taken. Learners' expectations do dictate the approach to teaching a teacher has to take whenever planning her/his lessons. Is he going to focus on increase in knowledge, problem solving tasks, or skills acquisitions? Most Algerian teachers still believe that learning occurs through what is termed "frontal teaching" or "chalk and talk". As "innovation" they have shifted to the "whiteboard and marker" to make their learners and themselves too, believe that they have integrated the 21<sup>st</sup> century education. This mode of dealing with learning has not been successful for all of our students as is evidenced by the considerable dropout rate in our schools. Hence, new theories, including multiple Intelligences theory, can never be correctly applied in the field if the meaning of learning is not clear for both the teacher and the learner. For this purpose, we believe it is crucial to deal with and clarify the concept of learning, with a strong urge to make it the front cover page of any teaching operation.

## 1.1 Definitions of Learning

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

- 1- To get knowledge or skill in a new subject or activity.
- 2- To make yourself remember a piece of writing by reading it or repeating it many times.
- 3- To start to understand that you must change the way you behave.
- 4- To be told facts or information that you did not know.

Merriam-Webster Online Dictionary defines learn as "to gain knowledge or understanding of a skill by study, instruction, or experience.

According to Gow and Kember (1993), the following points subsume the majority of approaches to learning:

- a quantitative increase in knowledge
- memorization
- the acquisition of facts and procedures which can be retained and / or used in practice
- the abstraction of meaning
- an interpretive process aimed at the understanding of reality

The website (Feb 2006) gives a variety of definitions which merit being included in this work for, we are sure, they provide us with rich information necessary to understand this 'miracle' word. Among these definitions:

- 1- Learning is eruditeness: profound scholarly knowledge.

([wordnet.princeton.edu/perl/webwn](http://wordnet.princeton.edu/perl/webwn))

- 2- Learning is a change in neural function as a consequence of experience.

([www.medaus.com/p/147.html](http://www.medaus.com/p/147.html))

- 3- Learning is the increase in the amount of response rules and concepts in the memory of an IS (Intelligence System).

[www.intelligent-systems.com.ar/intsys/glossary.htm](http://www.intelligent-systems.com.ar/intsys/glossary.htm)

- 4- A relatively permanent change in cognition, resulting from experience and directly influencing behavior

[www.neiu.edu/~dbehrlic/hrd408/glossary.htm](http://www.neiu.edu/~dbehrlic/hrd408/glossary.htm)

- 5- A process of ADAPTATION by which a set of adjustable parameters is automatically modified so that some objective is more readily achieved.

[www.agsm.edu.au/~bobm/teaching/SimSS/glossary.html](http://www.agsm.edu.au/~bobm/teaching/SimSS/glossary.html)

- 6- Learning is an increase in the capability for effective action. Individual, team, and organizational learning can all be measured by the outcomes that result from effective action.

[www.mountainquestinstitute.com/definitions.htm](http://www.mountainquestinstitute.com/definitions.htm)

- 7- The process by which experience brings about a relatively permanent change in behavior.

[www.socialpolicy.ca/l.htm](http://www.socialpolicy.ca/l.htm)

- 8- (A) To integrate, assimilate or incorporate “news” in an already internal cognitive structure.

(B) Act of perception, interaction and integration of an object by a subject, acquisition of knowledge or development of skills or attitudes.

[www.erudium.polymtl.ca/html-eng/glossaire.php](http://www.erudium.polymtl.ca/html-eng/glossaire.php)

- 9- Gaining knowledge or skills, or developing a behavior, through study, instruction, or experience.

[www.astd.org/astd/Resources/performance\\_improvement\\_community/Glossary.htm](http://www.astd.org/astd/Resources/performance_improvement_community/Glossary.htm)

m

Rogers (1983) quoted by Smith, M. K. (1999) 'Learning theory', the encyclopedia of informal education, gave a more complete and contextualized definition which is rich in content and style. He said:

I want to talk about learning. But not the lifeless, sterile, futile, quickly forgotten stuff that is crammed into the mind of the poor helpless individual tied into his seat by ironclad bonds of conformity! I am talking about LEARNING—the insatiable curiosity that drives the adolescent boy to absorb everything he can see or hear or read about gasoline engines in order to improve the efficiency and speed of his ‘cruiser’. I am talking about the student who says: “I am discovering, drawing in from the outside, and making that which is drawn in a real part of me.” I am talking about any learning in which the experience of the learner progresses along this line: “No, no, that’s not what I want”; “wait! This is closer to what I am interested in, what I need”; “Ah, here it is! Now I am grasping and comprehending what I need and what I want to know!

If we study with parsimony Rogers’ definition, we will notice that he wants to shift from a parochial and “schoolish” meaning of learning to one where real life situations and autonomy are omnipresent. Key words such as lifeless, futile, and conformity are negative and narrow concepts which should be ignored whenever exploring learning. Instead, he insists on what he calls ‘insatiable curiosity’ which opens the doors towards creativity and innovation. Learning should require the experiential component oriented towards discovery. In short, In order to truly learn, an individual must engage in whole-person learning oriented towards readiness to confront the new, the unexpected.

A support to Roger’s splendid definition came this time from a politician .Bill Clinton, while candidate for U.S presidency, quoted by Serbrenia J. Sims (1995), said that



current high school seniors will find themselves one day confronting a probable emergence of six not yet invented professions. He urged the American educators to develop learners who are not only literate, numerate, and prepared for some professional endeavour, but who also are capable of synthesizing developing information structures into evolving competencies for yet undefined tasks in the information-oriented world of the twenty-first century. Clinton's claims state clearly the necessity to prepare students for the unknown. They should be able to use not only what they have learnt from school but to add to it something original and creative to face new situations.

After reviewing the different literature dealing with the concept of learning, we have come to the conclusion that learning is much more than what was said. To our mind, learning is the maximal activation of the human intelligences to discover the systems and rules that govern the natural and human resources and make use of them for the benefit of mankind. Learning is natural curiosity which leads to creativity. It is a research operation.

Give a child a toy, say a small car. This child will never be satisfied to play with it. Her/his curiosity and urge to learn pushes her/him to dismantle and if necessary break into pieces this car to know its hidden parts, how it is made and how it functions. Many parents blame and sometimes punish the child for such a behaviour, which is in fact part of learning and constitutes a crucial step towards the child's development. Breaking the car, for the child, means breaking free and breaking through towards new knowledge. This 'BBB' equation (breaking the car, breaking through and breaking free) should be respected and fostered to reach true learning.

Sometimes learning occurs by chance or pure coincidence. One might be working hard to solve a given problem. During this process he may discover new phenomena he had never thought over before. Gedney (1985) cited:

Alexander Fleming was a young bacteriologist at St. Mary's Hospital in London in 1928. One day in his cluttered laboratory, he noticed that a culture dish of bacteria had been invaded by a mold whose spore must have drifted in through an open window. Under the microscope, he saw that, all around the mold, the individual bacteria that he had been growing had burst. He saved the mold, and from it produced the first penicillin.

In 1879, Louis Pasteur inoculated some chickens with cholera bacteria. It was supposed to kill them, but Pasteur or one of his assistants had accidentally used a culture from an old jar and the chickens merely got sick and recovered. Later, Pasteur inoculated them again with a fresh culture that he knew to be virulent, and the chickens didn't even get sick. Chance had led him to discover the principle of vaccination for disease prevention.

After a careful consideration of the above definitions including ours, we have noticed that all the learning theories along with their constituents or elements do complete one another and form an indivisible whole. Nevertheless, we believe some of these elements should appear or impose themselves before others. Hence, if we were to rank them in priority order, we would get the following:

1-Curiosity

2-Experience

3-Knowledge/skills

4-Memory

5-Eruditeness

6-Effective action and creativity

7-Curiosity (once again)

If we illustrate the above elements in the form of a diagram we can get the following figure:

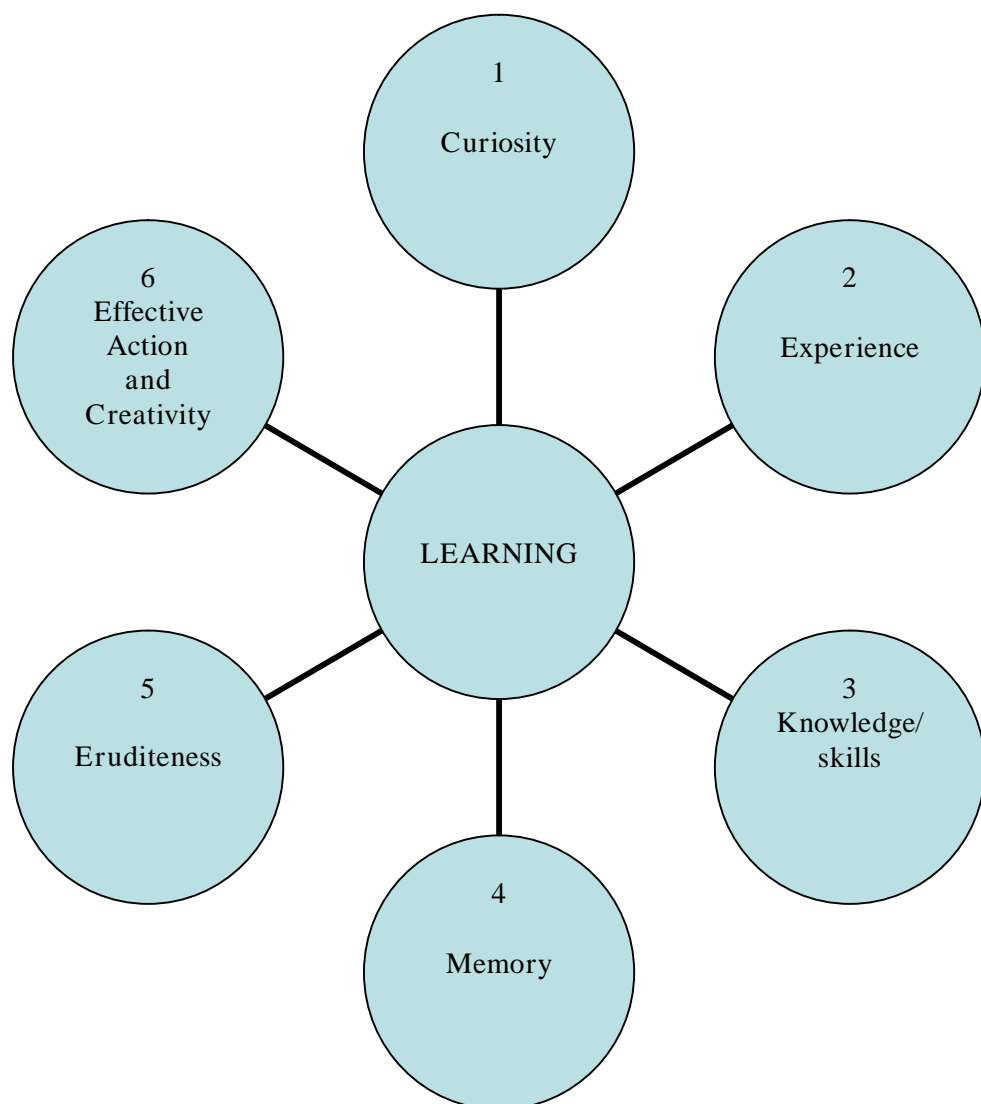


Figure 2 Learning definition

It is worth mentioning that such a ranking is like a cycle that never stops evolving. It starts with curiosity, ends with effective action and creativity then starts again with curiosity to know and create more.

## 1.2 Ways of Learning

Theories on how people learn are numerous and varied. Some are complementary and others deny the validity of all that preceded and claim their primacy. Which one should we adhere to? Which one is more valid? A personal answer would assert that “space and time” are the two elements which select the theory or theories that are suitable to a given situation.

### 1.2.1 Learning and the Behaviorist View

To have a clear idea of this view in relation to learning, we feel it is necessary to answer first the following question: what is behaviorism?

Behaviorism is a doctrine interested in human and animal behavior. It claims three truths:

1-Psychology is the science of behavior, not the science of mind.

2-behavior is to be described without making any reference to internal psychological processes or mental events. Therefore the sources of behavior come from the environment (external) not from the mind.

3-Any mental term or concept deployed in describing behavior should be eliminated and replaced by behavioral terms.

The three sets mentioned above are logically distinct and if taken separately, each contributes in forming a different type of behaviorism:

#### a- Methodological behaviorism

It is a normative theory about the scientific trend of psychology. It insists that the main concern of psychology is the behavior of organisms (humans and animals). Any reference to mental events or internal information processing is to be eliminated. According to this theory, given the necessary publicity of science, all that is internal can never be empirically studied. The dominant writer about this theme is John Watson (1878-1958). Methodological behaviorism shares in its historical foundations, with analytical behaviorism, the influence of positivism. The main focus here, is the positivism goal which aims at unifying psychology with natural science. This is mirrored in Watson's writing, quoted by Robert H. Wozniak (1997): "Psychology as a behaviorist view is a purely objective experimental branch of natural science. Its theoretical goal is prediction and control.

Methodological behaviorism is committed to truth 1.

#### b- Psychological behaviorism

This theory explores human and animal behavior in terms of external physical learning histories and reinforcement.

To illustrate this we suggest the following example:

A food deprived animal, let's say a rat, is in an experimental chamber. If a particular movement such as pressing a lever when a light is on, is followed by the presentation of food, the likelihood of the rat's pressing the lever when hungry, again, and the light is on, is increased. We deduce:

- The presentations are reinforcements.
- The lights, when on are, are stimuli.
- Lever pressings are responses.

-Trials or associations are learning histories.

Psychological behaviorism is stemmed from classical associationism of the British empiricists John Locke (1630-1704) and David Hume (1711-1776). Classical associationism claims that intelligent behavior is the product of associative learning: the result of associations or pairing between perceptual experiences or stimulations on the one hand, and ideas or thoughts on the other, enable persons and animals to acquire knowledge of their environment and how to act.

Associations enable living creatures to discover the causal structure of the world.

Perceptual experiences are introspectible entities.

In this respect, psychological behaviorism aims at specifying types of associations, understand how environmental events control behavior, discover causal regularities/laws which govern the formation of associations, and then, predict how a certain behavior will change if the environment changes. In the example of the food-deprived rat cited previously, the animal in the so called operant conditioning experiment is not learning to press levers. Instead it is learning about the relationship between events in their environment: a particular behavior, pressing the lever, causes food to appear.

Psychological behaviorism is committed to truth 2.

### c- Analytical Behaviorism

This theory is about the meaning or semantics of mental concepts or terms. It claims that the notion of a mental state or condition is a notion of a behavioral disposition or family of behavioral tendencies. Hence, when a belief is attributed to someone, for example, we are not saying he is in a particular mental state or condition; we are characterizing this person of what he might do in particular situations.

Analytical behaviorism traces its historical roots to logical positivism, a philosophical movement which proposes that the meaning of sentences used in science be understood in terms of the experimental conditions or observations that verify their truth.

“Verificationism” is the name by which the positivist doctrine is known.

Analytical behaviorism is committed to truth 3.

Researchers like Edward L. Thorndike enriched the above foundations by developing a stimulus- response (S-R) theory of learning. He noted that any response (behavior) was strengthened or weakened by the sequences of behavior. Skinner refined this notion which is better known as operant conditioning ,reinforcing what one wants people to do again; ignoring or punishing what one wants people to stop doing.

In terms of learning, four key principles come to the fore: (James Hartley 1998)

1-Activity is necessary and important: learning is more efficient when the learner is active, fully involved, rather than passive. ‘Learning by doing’ is an example.

2-Repetitions and generalizations are so important: frequent practice and practice in varied contexts are necessary for learning to take place. Frequent practice is a prerequisite for skills acquisition.

3-Reinforcement is a great motivator: rewards and successes (positive reinforcers) are preferable to punishments and failures (negative events).

4-Learning is more efficient when objectives are clearly stated: activities in a given lesson are framed by behavioral objectives. E.g., ‘By the end of the lesson students will be able to .....’

### 1.2.2 Learning and the Cognitive View

As a reaction to behaviorism, strong criticism came from Gestalt psychologists (Gestalt meaning pattern or configuration in German).The behaviorists have put much

focus on single events, stimuli and overt behavior. For them, perceptions or images should be approached as a pattern or a whole rather than the sum of the component parts. While the behaviorists' focus was on the environment, Gestalt theorists turned to the individual's mental processes. Their concern was cognition – the act or process of knowing.

Drawing out some of the key principles of learning associated with cognitive psychology, James Hartley (1998) quoted: “Learning results from inferences, expectations and making connections. Instead of acquiring habits, learners acquire plans and strategies, and prior knowledge is important.”

The principles Hartley identifies are:

- Instruction organization: to be easier to learn and to remember, materials should be well organized.
- Instruction structuring: subject matters should have inherent structures. Key ideas and concepts should have logical relationships. These would link the parts together.
- The task and its perceptual features: the way a problem is displayed is important if students are to understand it. This is so because different aspects of the environment are attended selectively by learners.
- Individual differences: they are very important since they affect directly learning.
- These differences are often in the form of cognitive styles or methods of approach.
- Information about students' success or failure concerning the task at hand is given by cognitive feedback. Hence, reinforcement comes through giving information-a knowledge of results – rather than a reward.

It is worth mentioning that though, once, mentalist theories were included in the cognitive theories, today, a clear distinction is made. Behaviorist theories of learning view external



factors as of central importance. Mentalist theories emphasize the role played by the learner's internal factors, crediting learners with a language acquisition device that enables them to work on what they hear and to extract the abstract rules that account for how the language is organized.

Cognitive theories of language acquisition tend to be interactional in the sense that they emphasize the joint contribution of external and internal factors.

### 1.2.3 Learning and the Humanistic View

The basic concern of this view is for human growth. It attacked fiercely any theory which treated people as objects and rationalism. It reaffirmed the affective and subjective world. Motivation, personal freedom and feelings were given the place they deserve. Maslow's hierarchy of motivation is a good example to illustrate this view. According to him, this hierarchy consists of five levels, at the lowest level come physiological needs; at the highest, self actualization. It becomes possible to move on to the next level only when the lower needs are satisfactorily met. These levels might be summarized as follows:

- Level one

-Physiological needs such as hunger, thirst, sex and sleep must be met before L2 (a foreign language) comes into play.

- Level two

-Safety needs: people will tend to organize their own worlds where safety and security is provided if these are not satisfied right at the beginning. If satisfied, their concern will be level 3.

- Level three

-Love and belongingness needs: these are of crucial importance since thanks to them, people seek and build friendly relationships.

- Level four

-Self esteem needs: these needs involve on one side, the desire for competence, strength and achievement and on the other side, confidence, independence and reputation.

- Level five

-Self-actualization: It is the highest level where talents, capacities and potentialities are fully used and expressed. Learning can, thus, be considered as a form of self-actualization.

Maslow's hierarchy of motivation is often displayed in the form of a pyramid (University of Tasmania, Australia. 22-Aug-2007):

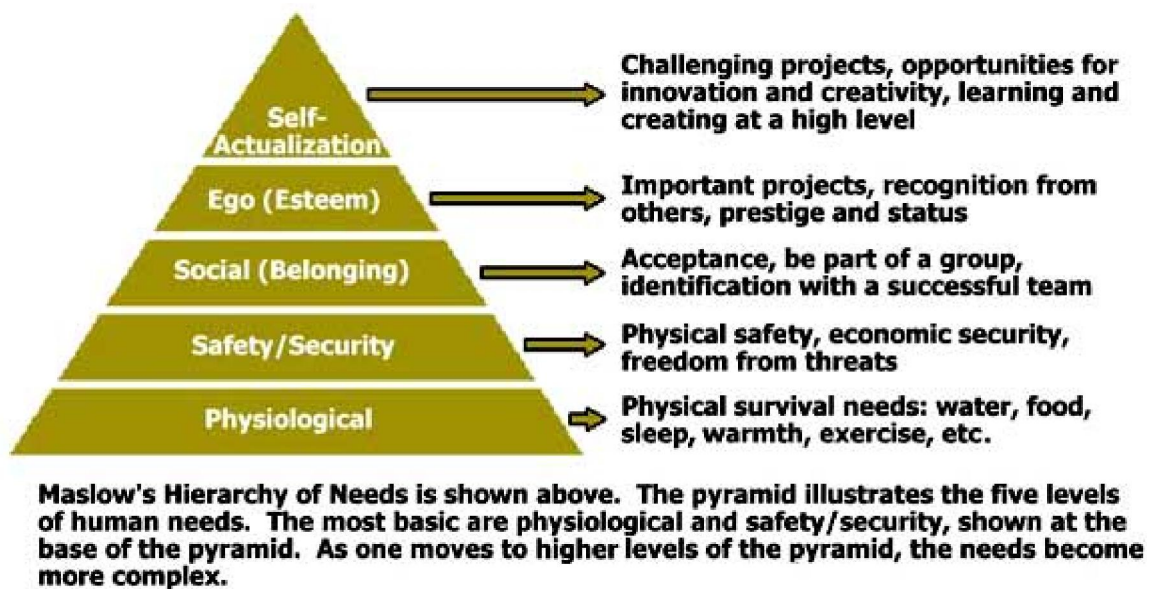


Figure 3 Maslow's hierarchy of motivation

Note: we would add to the first level "religion". This factor has accompanied humans since the stone-age. Every creature is bound to get involved in it, consciously or unconsciously since "our brains are born religious". The originator of this idea is Carl Jung (1999). He was convinced him

that "life has a spiritual purpose beyond material goals. Humans' main task is to discover and fulfill our deep innate potential, much as the acorn contains the potential to become the oak, or the caterpillar to become the butterfly". Jung thought "spiritual experience was essential to our well-being".

Furthermore, the Humanistic view claims that any teacher's aim should be targeted towards the optimum growth of each learner. In our case, the teacher should help the pupils to help themselves, teach how to confront the unexpected. He should remember that his very young pupils look forward to a future that 'we shall not share'.

To summarize this view, I found it very worth citing the following magnificent summary by Edna Mellor (quoted in Lorna Ridgeway 1969: 14):

My philosophy of education is concerned with the whole child-his physical, mental and spiritual growth; his feelings, attitudes and relationships; his character and personality. I am concerned with him as an individual having certain innate tendencies, potentialities and traits, and also with him as a member of society having certain rights and privileges, duties and responsibilities.

#### 1.2.4 Learning and the Social /Situational View

Such view posits that people learn from observing other people. These observations take place in a social setting. The role of observation is to allow people to see the consequences of other's behaviors and gain some idea about what might happen from acting in this or that way. Hence, the key aspects of observational learning involve attending to a behavior, remembering it as possible model and playing out how it may work in different situations. Lave and Wenger (1991) have put a radical model, situated learning, where rather than considering learning as the acquisition of knowledge, they have tried to orient it towards social relationships-situations of co-participation. In other words, instead of asking what kind of cognitive processes and conceptual structures are involved, they ask what kind of social engagements provide the proper context for

learning to take place. Thus, learning should involve full participation in the socio-cultural practices of a community.

To sum up, this view focuses on the need to understand learning in context. It claims that situated learning depends on two major points:

- Talking of knowledge that is abstract or decontextualized is nonsense.
- Communities of practice are the place where new knowledge and learning are located.

To get a more concise idea of these four views, Merriam and Caffarella (1991) suggested the following scheme:

Aspect	Behaviourist	Cognitivist	Humanist	Social and situational
Learning theorists	Thorndike, Pavlov, Watson, Guthrie, Hull, Tolman, Skinner	Koffka, Kohler, <u>Lewin</u> , Piaget, Ausubel, <u>Bruner</u> , Gagne	Maslow, <u>Rogers</u>	Bandura, <u>Lave and Wenger</u> , Salomon
View of the learning process	Change in behaviour	Internal mental process (including insight, information processing, memory, perception)	A personal act to fulfill potential	Interaction/ observation in social contexts. Movement from the periphery to the center of a community of practice
Locus of learning	Stimuli in external environment	Internal cognitive structuring	Affective and cognitive needs	Learning is in relationship between people and environment.
Purpose in education	Produce behavioural change in desired direction	Develop capacity and skills to learn better	Become self-actualized, autonomous	Full participation in communities of practice and utilization of resources
Educator's role	Arranges environment to elicit desired response	Structures content of learning activity	Facilitates development of the whole person	Works to establish communities of practice in which conversation and participation can occur.

Manifestations in adult learning	Behavioral objectives  Competency - based education.  Skill development and training	Cognitive development  Intelligence, learning and memory  Learning how to learn	Andragogy  Self-directed learning	Socialization  Social participation  Associationalism  Conversation
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Table 1 Scheme of Learning

### 1.2.5 Constructivism

This theory encompasses a number of cognitive and other theories. It asserts that learning is the construction of new ideas or concepts based upon the learners' current and past knowledge. In other words, emphasis is put on the role of the learner in constructing his own view of reality.

As far as teaching is concerned, the teacher's role is to help the learner select and transform information, construct hypothesis and make decisions. A cognitive structure - schema - is to be relied upon. The learner should go beyond the information given and tries to discover principles by himself. In this context, a spiral organization of a syllabus is necessary to enable the learner to continually build upon what he has already learned. The key principles of constructivism are:

1-Experiences and contexts must be the main concern of instruction to allow for student's readiness, willingness and ability to learn and discover.

2-A spiral organization of instruction is necessary so that it can be grasped easily by the learner.

3-to go beyond the information given, instruction should be designed in a way to facilitate extrapolation and fill in the gaps.

It is worth mentioning that within constructivism there are two schools of thought:

-Social constructivism: it is based on Lev Vygotsky's theories and emphasizes both social and cultural learning contexts. According to Vygotsky, learning is a social and cooperative activity where the teacher acts as facilitator and the student is responsible for constructing his own understanding in his own mind. This theory places the teacher in an active role with the students developing their mental abilities through a discovery process.

-Cognitive constructivism: this theory involves a holistic approach .It emphasizes research and spontaneity. It fosters classrooms with authentic opportunities that challenge students. Today, Constructivist teaching is gaining much efficiency thanks to the recent research about the brain and how learning occurs. Caine and Caine (1991), quoted in an article by North Central Regional Educational Laboratory, suggested that brain-compatible teaching is based on 12 principles:

1. "The brain is a parallel processor" (p. 80). It simultaneously processes many different types of information, including thoughts, emotions, and cultural knowledge. Effective teaching employs a variety of learning strategies.
2. "Learning engages the entire physiology" (p. 80). Teachers can't address just the intellect.
3. "The search for meaning is innate" (p. 81). Effective teaching recognizes that meaning is personal and unique, and that students' understandings are based on their own unique experiences.
4. "The search for meaning occurs through 'patterning' " (p. 81).Effective teaching connects isolated ideas and information with global concepts and themes.
5. "Emotions are critical to patterning" (p. 82). Learning is influenced by emotions, feelings, and attitudes.
6. "The brain processes parts and wholes simultaneously" (p. 83). People have difficulty learning when either parts or wholes are overlooked.

7. "Learning involves both focused attention and peripheral perception" (p. 83).  
Learning is influenced by the environment, culture, and climate.
8. "Learning always involves conscious and unconscious processes" (p. 84).  
Students need time to process 'how' as well as 'what' they have learned.
9. "We have at least two different types of memory: a spatial memory system and a set of systems for rote learning" (p. 85). Teaching that heavily emphasizes rote learning does not promote spatial, experienced learning and can inhibit understanding.
10. "We understand and remember best when facts and skills are embedded in natural, spatial memory" (p. 86). Experiential learning is most effective.
11. "Learning is enhanced by challenge and inhibited by threat" (p. 86). The classroom climate should be challenging but not threatening to students.
12. "Each brain is unique" (p. 87). Teaching must be multifaceted to allow students to express preferences.

Furthermore, Caine and Caine (1991) believed that "optimizing the human brain means using the brain's infinite capacity to make connections, and understanding what conditions maximize this process." In order for complex learning to occur, three conditions should be omnipresent:

#### 1- Relaxed alertness

This element is an optimal state of mind which consists of high challenge and low threat.

## 2- Orchestrated immersion

This element insists on the immersion of the learner in multiple, complex, and authentic experiences.

## 3- Active processing

Processing here concerns experience as the basis for making meaning.

### 1.2.6 Neuro Linguistic Programming

Neuro Linguistic Programming or NLP stems from psychology and neurology. It is concerned with the way our brains function and how they should be trained to perform efficiently. Hence, it encompasses all research areas which aim at identifying the different modes of learning whilst putting a focus on the learner as an individual with unique traits and characters. Neuro linguistic programming (NLP) is a set of psychological beliefs which claim that we, humans, have the power to control our own and other people's lives for the best. According to this theory, if language teachers/learners adopt and use the principles of neuro-linguistic programming, they will become more effective teachers/learners. Neuro-Linguistic Programming (NLP) was developed at the University of California at Santa Cruz in the 1970's. Its founders and principal authors were Richard Bandler, a student of (initially) mathematics and computer science, and John Grinder, a professor of linguistics. NLP has since then achieved popularity as a method for communication and personal development. It is used by professional practitioners of many kinds - managers, trainers, sales people, market researchers, counselors, lawyers and more.

The word Neuro linguistic programming can be broken down to three distinct words:



1-Neuro refers to the brain and neural network that feeds into the brain. Neurons (nerve cells) are the working units used by the nervous system to send, receive, and store signals that add up to information.

2-Linguistics refers to the content, both verbal and nonverbal, that moves across and through these pathways.

3-Programming is the way the content or signal is manipulated to convert it into useful information. The brain may direct the signal, sequence it, change it based on our prior experience, or connect it to some other experience we have stored in our brain to convert it into thinking patterns and behaviors that are the essence of our experience of life.

We can summarize NLP in the form of the following diagram:

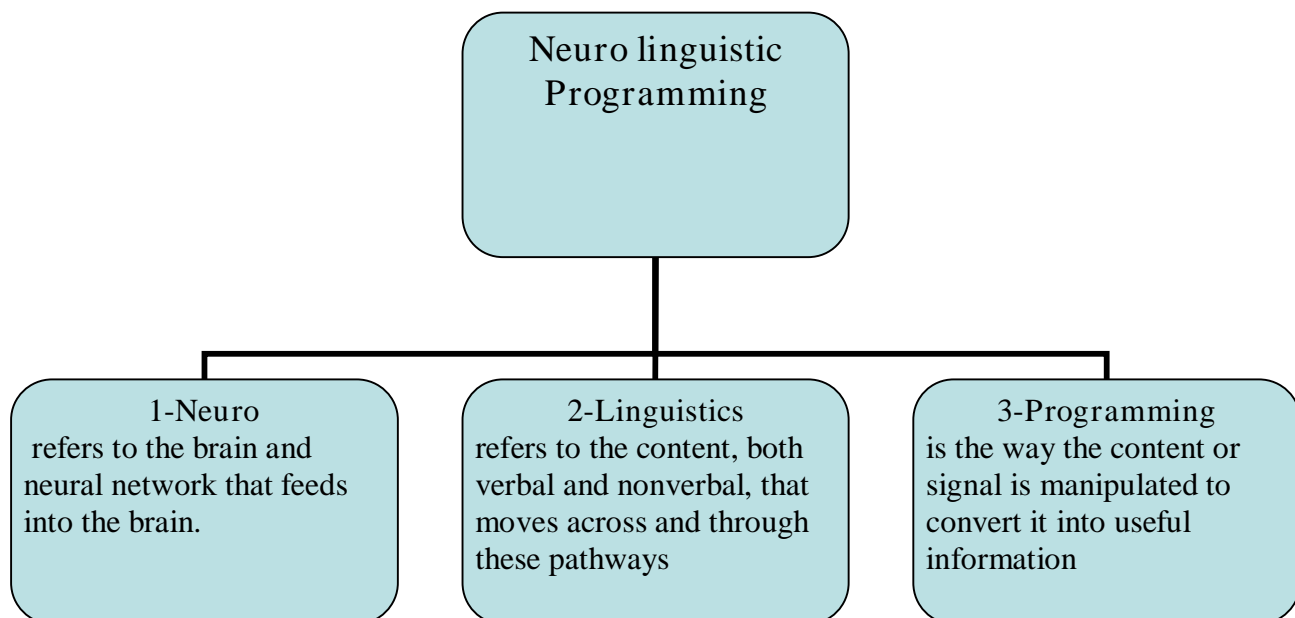


Figure 4 NLP

For learning and teaching, NLP holds much potential. It claims the following:

- The relationship between the students and the teacher is "a cybernetic loop", an efficient process where reciprocal feedback constitutes the foundation and building of meaning. This latter is not constructed through the transmission of information from one individual to another. In our own words, teacher and students are co-learners and meaning occurs through their cooperation. This "cybernetic loop" is omnipresent in the competency based approach used in Algeria nowadays.

- People do not act according to the way the world is. They act according to how they perceive, understand and represent the world. Nathaniel Hawthorne's 'things are not what they seem' do fit this point.

- The major interest of NLP is the way(s) in which learners represent the world internally via the senses: visual, auditory, kinesthetic and language.

NLP is particularly interested in the way internal representations are structured, both in themselves (e.g. the location, size, brightness etc. of visual imagery), and dynamically (as sequences). NLP assumes that such internal representations are unique to each individual.

- One of NLP's assumptions is that one's internal representations do shape his/her language and overt behavior (non-verbal one).

- According to NLP, humans learn skills, beliefs and behaviors. Hence, through the learning process, representations are acquired and modified.

- The neuro-physiological state of a person has much influence on his capacity to learn. As an example, a state of curiosity enhances learning while boredom hinders it. One's beliefs about learning and about himself as a learner have also an effect on learning. Believing that one can learn and that learning is fun and worthwhile yields better results. Believing the opposite results in poor results. These states and beliefs can be learnt and are susceptible to change.

- Very often such modification occurs during communication between teacher and learner. Communication is verbal and non-verbal, conscious and non-conscious.
- Any communication does influence learning. The teachers' language along with his behavior influence the learners' understanding of the topic in question, and their beliefs about the world.

In essence, the teaching operation constitutes a process which (a) creates 'states' favorable and conducive to true learning; (b) facilitates the learners' exploration and/or enhancement of their internal representations; and (c) leads towards the desired aim or output.

In this context, four key principles lie at the heart of NLP ( Revell and Norman 1997).

1. Outcomes: we may call them outputs since they represent the goals or ends. According to NLP knowing precisely what one wants or desires helps this person to achieve it. This element can be termed "know what you want."
2. Rapport: It is very essential for effective communication. It helps 'maximizing similarities and minimizing differences between people at unconscious level'. This factor can be termed "Establish rapport with yourself and then with others."
3. Sensory acuity: this element is about paying attention to another person's conscious and nonverbal communication. It can be expressed as "Use your senses. Look at, listen to, and feel what is actually happening."
4. Flexibility: it is the possession of skills to do something else when we feel lost. In other words, one should do things differently if what he is doing is not working. "Keep changing what you do until you get what you want." mirrors perfectly this element.

As an attempt to shape the way teaching is conducted, whatever the methodology a teacher adheres to, Revell and Norman (1997) provide thirteen presuppositions that constitute a framework within which NLP can be applied in language learning:

1. Mind and body are interconnected: they belong to a same system, and each affects the other.
2. The map is not the territory: everyone has different maps of the world. (Things are not what they seem).
3. There is no failure, only feedback, and a renewed opportunity for success.
4. The map becomes the territory: What you believe to be true becomes true.
5. Knowing what you want helps you get it.
6. The resources we need are within us.
7. Communication is nonverbal as well as verbal.
8. The unconscious mind is benevolent.
9. Communication is unconscious as well as conscious.
10. All behavior has a positive intention.
11. The meaning of one's communication is the response he gets.
12. Modeling excellent behavior leads to excellence. (We wonder if excellence exists).
13. In any system, the element with the greatest flexibility will have the most influence on that system.

According to NLP, teachers should apply the above principles in their teaching to ensure better classroom results and to make their students aware of the fact that when we decide to succeed, we do succeed.

In an article entitled. Neuro Linguistic Programming in ELT, published: 1st December, 2005 by BBC English, it is quoted that learning or information arrives via the senses which constitute the basis of VAK styles-Visual Auditory and Kinesthetic. So, learning styles are to be catered for in the classroom to best learn. NLP also explains that our perception of any information coming to us from the outside (environment) is influenced by three elements:

### 1- Deletion

when there is too much input, the learner deletes or omits some information so that he can handle or manage it. We learn here, that a teacher should not present too much information- new language - at once.

### 2- Distortion

The NLP informs us that a learner distorts information and gives it forms which are understandable and learnable according to his personality. This process though it contributes to learnability, it may cause the learner to fall in the trap of misunderstanding and error.

### 3- Generalization

It is another way we learn. It is building broad conclusions on the information we have. This process may result in over-generalization and consequently may involve the learner in misuse of rules and errors.

Moreover, always according to this theory, individuals have some personal filters which dictate what is actually learnt. They are the way a learner handles information. NLP identifies them as 'beliefs', 'values', 'decisions' and 'memories'.

In language learning context, these filters exhibit themselves as follows:

- The decisions made by learners are based on beliefs and value judgments. They often turn the learner in a state of conflict because the previous learning experiences do not coincide with the current learning environment.
- Values provide the foundation for decisions about what is right and wrong, what students 'want / need to know and don't want / need to know'. Beliefs in some cultures are disabling, in that they prevent learners adopting strategies conducive to true learning and which teachers would like to encourage.

- Beliefs which affect our current behavior are the product of memories and prior decisions. Learners often come back to the strategies they adopted before and require deconditioning. They may be influenced by the way their teachers dealt with them.

NLP stresses the importance of non-verbal communication, especially eye contact, posture, breathing and movement. This non-verbal communication must match with verbal communication to achieve congruency. Congruency, here, may lead to fluency. This is why non-verbal communication should be taught alongside functional language and phonology in order to achieve true and authentic language production.

NLP is having a real impact on areas exploring the relationships between students and teachers and between students themselves. It aims at creating a healthy and positive learning environment built on the following elements:

- Creating rapport

Rapport means ease that develops during interaction between people. Such an ease makes the interlocutors feel comfortable and is essential for meaningful communication to take place. In the classroom, continuous negotiation between teacher / students and students/students does foster rapport and enhance learning.

- Mirroring

Mirroring the behavior of someone we wish to influence or to be influenced by constitutes an important way of establishing good rapport. Posture, gestures, facial expressions and even breathing are some elements we can mirror and practise in the

classroom. Combined with the verbal aspect of language, mirroring will result in natural communication.

- Creating positive states and anchoring

Anchoring and positive states refer to attitudes and motivation towards learning. In NLP, a positive state is "created through a mental image formed by the process of achieving something mentally or physically, and this state is anchored by a gesture, expression or body movement which is repeated to maintain or recall the state".

- Maintaining flow

Maintaining flow means avoiding interruption. NLP fits with 'Flow Theory', which states that learning 'flows like water and that the best learning takes place when uninterrupted'. In the teaching operation, flow is achieved when there is a balance of skills development, clear task objectives and new challenges. Successful learning takes place when learners grasp what they are doing in class and receive positive feedback from each other and from the teacher. Well planned lessons with 'competitive and collaborative games, jokes, songs and anecdotes, personalization and well-structured information gap activities all help to maintain flow'.

- Pacing and leading

These are strategies requiring the listener to get involved in pacing that is tuning in, accepting and correctly stating the speaker's point of view then shifting to leading where the listener suggests an alternative point of view. Acceptance of an argument will be accompanied by the listener's mirroring of the speaker's behavior.

- Perceptual positioning

This is an extension of mirroring. We use it in NLP to resolve conflicts and it involves a 'neutral third party as a mediator in disputes'. (An ELT application here would be in a reading or storytelling lesson, where one position is taken by the writer / teller, another by a character in the story, and a third by a reader or neutral observer of events.)

- Modeling good practice

NLP insists on mirroring 'what others do well'. In English Language Teaching, much of this should be about learner training, especially when learners discover one another's strategies or adopt new study skills.

To consolidate the above information, we suggest Bandler's following words (1997) which give a comprehensive account of what NLP entails with an orientation towards innovation and creativity:

I think the more you want to become more and more creative you have to not only elicit other peoples' (plural) strategies and replicate them yourself, but also modify others' strategies and have a strategy that creates new creativity strategies based on as many wonderful states as you can design for yourself. Therefore, in a way, the entire field of NLP is a creative tool, because I wanted to create something new.

During the last two decades neuroscientists have been searching the possible for improved teaching practices. Their scientific field is based on information obtained through autopsies, experiments, and different types of scans: MRIs, EEGs, PET and CAT scans, as well as the most recent brain research lab studies in neuroscience (as the ones cited by Georg Ruckriem (2009) in our introduction. Neuroscientists construct clinical



studies that use, large, diverse, multi-age, multicultural groups of people to gather valid and reliable information. This information has helped determine how human learning actually occurs. In essence these scientists have been peering into the human brain in order to determine how this "black box" processes and retains information. Thus, technology in brain research has paved the way for many new learning innovations. Teachers can now apply new theories of teaching and learning based on recent findings with more confidence.

According to scientists, the brain seeks meaning innately and functions best when it processes cognitive, affective, and psychomotor information simultaneously. When the brain is challenged learning occurs and becomes enhanced. When creative acts that include thought, feeling, and physical energy are involved, many parts of the brain (intelligences) are engaged simultaneously. On the other hand, when the brain is threatened it reverts to a flight mode and learning suffers. Threats may have internal or external sources. An angry teacher, an oppressive physical environment or bullying events may be an example of an external source of stress. Negative emotions created by poor marks, testing, or parental pressures may be an example of internal sources. Hence, new learning must be relevant to the learner. When the brain, "consciously or unconsciously perceives instruction as irrelevant, it is irrelevant". If irrelevant the potential for learning is diminished and sometimes inhibited. The challenge today is to create a new paradigm for instruction that marries natural learning with leading edge technologies.

In an article published by Edutopia Magazine, Grace Rubenstein (2009) reveals that Brain Research like NLP is providing educators with valuable information about how humans think and learn. According to him, technology is playing an important role in supporting brain

research with images that can be observed while we think and learn. He explains that recent brain findings show that the complex abilities apparent in individuals are reflected on the inside, as well as the outside. The outside enables every perceptive teacher to see a diversity of strengths and weaknesses in each of the pupils: "there is the child who loves math but has trouble playing well with classmates, the one who makes friends easily but struggles to stay focused on written tasks, and another who creates beautiful paintings but can't seem to retain much of what she's read". The inside concerns the parts of the brain involved in reading, math, music, and personal relationships. These are different - larger or smaller, more or less active - in every pupil. Grace Rubenstein (2009) says that "these circuits are independent, so even if a child struggles in one domain, like reading, he may have a neurological advantage in others". This is strongly related to learning styles and multiple intelligences.

Scientists have established that learning and practising certain skills do cause the corresponding brain areas to morph and grow. In other words, by helping a pupil hone his intellectual abilities, we can actually change his brain.

The new brain research does not disprove, nor does it prove Howard Gardner's MI theory that we in fact have multiple intelligences. But it shows that a kaleidoscope of ability is mapped in our brains, and that, with the help of brain-imaging technology, these variations of "intelligences" can actually be seen. The figures below confirm brain research findings:

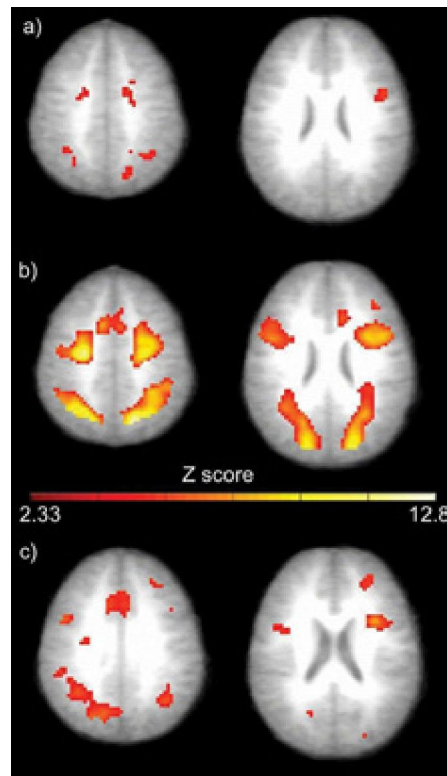


Figure 5 Brain Images

Grace Rubenstein (2009) reported that a 2005 study in Cognitive Brain Research, published these images which show horizontal slices in the brains of adolescent boys, as measured while they were doing a spatial math problem. The pictures are composites from several pupils. Those shown in a) have average math ability, and those in b) are gifted in math. The brighter the color in these functional magnetic resonance imaging (fMRI) pictures, the stronger the brain activity. The c) images show the active areas unique to the math-gifted brain.

Imaging technology has shown differences in brain architecture and activity that matches with a host of capabilities: reading, math, music, athletics, and interpersonal relations (Gardner calls them intelligences). Hence, the imaging confirms that intelligence has no single "address" in the brain. There are many intelligences and each intelligence involves "multiple gears that are spread out across the brain and that work together through

intricate networks." For a pupil to successfully perform intelligence, such as linguistic intelligence, all the areas involved in this intelligence must engage in concert, "linked by well-built, lightning-fast neural connections."

The imaging confirms that there are differences in the brain between people who learn one way and those who learn another way. Even though scientists do not know yet how much of our brain diversity is inborn and how much is acquired, they have shown that the act of learning can change the brain.

Michael Posner, founding director of Cornell University's Sackler Institute for Developmental Psychology (quoted by Grace Rubenstein 2009) says that "one should not think of intelligence as a single thing that's fixed and that nothing can be done about. Just as there are multiple individual differences in different areas, there are ways of training these different brain networks, and that might change the brain processes underlying them."

Scientists have seen evidence like this for mental, not just physical tasks. In studies with strong implications for school, it was noticed that teaching can alter the brains of the readers. fMRI pictures showed that activity in parts of their brains crucial for reading had jumped.

What does all this mean for educators? Doubtlessly teachers can make some inferences based on brain research. Educators can achieve a lot just by designing lessons that appeal to multiple intelligences. Teachers might lead a pupil into a new subject through his particular strengths or predominant intelligence. Once the pupil is engaged, his teacher can challenge him to use a different, weaker intelligence set for another part of the lesson, helping him develop those parts of his brain. The quote which says: "You can lead a horse to the water but you can't make him drink" would perfectly apply to the teacher who ignores students' preferred channels of learning. We can advocate then, that

personalization is a key to nurturing pupils' growth. A deeper understanding of how education shapes the brain could give us new insights into what and how children can most successfully learn. Who knows? May be in some far-off future, we could supplement today's narrow results with clearer images of changes in the brain.

We may conclude that the effect of learning on the brain shows us that the way a child is brought up has a big impact on his ability to handle his adult life. "A normal child can evolve into a "monster" and become destructive to his own life, if he is subject to long period of mental-torture by his parents or teachers. Soon, the fMRI will say more!

Always in the field of brain research, new scientific findings gave birth to what scientists call "brain-based learning." Leslie Owen Wilson (2009) defines brain-based learning as "a comprehensive approach to instruction using current research from neuroscience". Brain-based education emphasizes how the brain learns naturally and is based on what we currently know about the actual structure and function of the human brain. This theory also helps explain recurring learning behaviors, and is a meta-concept that includes an eclectic mix of techniques. Currently, related techniques stress allowing teachers to connect learning to students' real lives and emotional experiences, as well as their personal histories and experiences. This form of learning also encompasses such newer educational concepts like:

mastery learning: "assisting individuals in continuously achieving their highest potential by providing them with the skills and knowledge necessary for success."

experiential learning: making meaning from direct experience

learning styles: different channels/approaches or ways of learning.

multiple intelligences: Gardner's theory, the topic of our research.

cooperative learning: A term used for various small group "interactive instructional procedures". Students work together on academic tasks in small groups to help themselves learn better

practical simulations: roleplays

problem-based learning: It is an instructional method that challenges learners to "learn to learn," and work cooperatively to find solutions to real life problems.

Teachers should remember that as long as the brain is not prohibited from fulfilling its normal processes, learning will occur. Providing a stimulating classroom environment to this theory can help satisfy the brain's "enormous hunger" for discovery and challenge. Unfortunately, Traditional schooling often inhibits learning by "discouraging, ignoring, or punishing the brain's natural learning processes."

The core principles of brain-based learning state that:

1. The brain is a parallel processor. It can perform several activities at once.
2. Learning engages the whole physiology.
3. The search for meaning is innate.
4. The search for meaning comes through patterning.
5. Emotions are critical to patterning.
6. Every brain simultaneously perceives and creates parts and wholes.
7. Learning involves both focused attention and peripheral perception.
8. Learning always involves conscious and unconscious processes.
9. There are two types of memory: a spatial memory system and a set of systems for rote learning.

10. The brain understands best and remembers best when facts and skills are embedded in natural spatial memory.
11. Learning is enhanced by challenge and inhibited by threat.
12. Each brain is unique.

## Implications for Teaching

Nowadays, literature is very rich with the implications for teaching using brain research.

We have selected the following table written by Caine, R.N., Caine, G. (1990) which enlightens the teacher's mind and facilitates his task:

Recent Research Suggests	Teaching Suggestions
The brain performs many functions simultaneously. Learning is enhanced by a rich environment with a variety of stimuli.	Present content through a variety of teaching strategies, such as physical activities, individual learning times, group interactions, , and musical interpretations to help orchestrate student experiences.
Learning engages the entire physiology. Physical development, personal comfort, and emotional state affect the ability to learn.	Be aware that children mature at different rates; chronological age may not reflect the student's readiness to learn. Incorporate facets of health (stress management, nutrition, exercise) into the learning process.
The search for meaning is innate. The mind's natural curiosity can be engaged by complex and meaningful challenges.	Strive to present lessons and activities that arouse the mind's search for meaning.
The brain is designed to perceive and generate patterns.	Present information in context (real life science, thematic instruction) so the learner can identify patterns and connect with previous experiences.
Emotions and cognition cannot be separated. Emotions can be crucial to the storage and recall of information.	Help build a classroom environment that promotes positive attitudes among students and teachers and about their work. Encourage students to be aware of their feelings and how the emotional climate affects their learning.

Every brain simultaneously perceives and creates parts and wholes.	<p>Try to avoid isolating information from its context. This isolation makes learning more difficult.</p> <p>Design activities that require full brain interaction and communication.</p>
Learning involves both focused attention and peripheral perception.	<p>Place materials (posters, art, bulletin boards, music) outside the learner's immediate focus to influence learning.</p> <p>Be aware that the teacher's enthusiasm, modeling, and coaching present important signals about the value of what is being learned.</p>
Learning always involves conscious and unconscious processes.	<p>Use "hooks" or other motivational techniques to encourage personal connections. Encourage "active processing" through reflection and metacognition to help students consciously review their learning.</p>
We have at least two types of memory: spatial, which registers our daily experience, and rote learning, which deals with facts and skills in isolation.	<p>Separating information and skills from prior experience forces the learner to depend on rote memory.</p> <p>Try to avoid an emphasis on rote learning; it ignores the learner's personal side and probably interferes with subsequent development of understanding.</p>
The brain understands best when facts and skills are embedded in natural spatial memory.	<p>Use techniques that create or mimic real world experiences and use varied senses. Examples include demonstrations, projects, metaphor, and integration of content areas that embed ideas in genuine experience.</p>
Learning is enhanced by challenge and inhibited by threat.	<p>Try to create an atmosphere of "relaxed alertness" that is low in threat and high in challenge.</p>
Each brain is unique. The brain's structure is actually changed by learning.	<p>Use multifaceted teaching strategies to attract individual interests and let students express their auditory, visual, tactile, or emotional preferences.</p>

Table 2 Implications for Teaching



### 1.2.7 Experiential Learning Theory

Tell me, and I will forget.

Show me, and I may remember.

Involve me, and I will understand.

- Confucius, 450 B.C.

If we study the above quote told by Confucius thousands of years ago, we understand that involvement or experience was believed to be the master key towards learning and understanding. But how, exactly, do people "learn from experience"? The most famous response to this question comes from John Dewey's philosophy of education. According to him good education should have both a societal purpose and purpose for the individual student. His Experiential Learning Cycle asserts that people learn experientially and considers the nature of experience as of fundamental importance in education. However, it is worth mentioning that good and bad experiences affect learning differently. The ones that are painful often lead to underachievement. The pleasant ones enhance learning. In other words, "good experiences" motivate, encourage, and enable students to go on to acquire valuable learning experiences, whereas, "poor experiences" lead towards a learner closing off from fruitful experiences in the future. Educators are, therefore, to provide students with experiences that are immediately valuable and which better enable the students to contribute to society.

Inspired by Dewey, David Kolb (1984) proposed an Experiential Learning Cycle". This model suggests that a learner goes through a Concrete Experience which is followed by Reflective Observation, then the formation of Abstract Conceptualizations and finally undergoing Active Experimentation to test out the newly developed outcomes (knowledge).

This can be explained as follows:

1-Experiencing outdoor activities: this involves personal and group challenges.

2-Reviewing: Encourage individuals to reflect, describe, communicate and learn from the experience.

3-Concluding: Use of theories and models to draw conclusions from past and present experiences.

4-Planning: Applying new learning from past experiences. This will be followed by transfer of learning.

This model suggests that a participant has a Concrete Experience followed by Reflective Observation, then the formation of Abstract Conceptualizations before finally conducting Active Experimentation to test out the newly developed principles. The heart of learning lies in the way we, as humans, process information. According to this theory, learning is a cycle which starts with experience, continues with reflection and later leads to action. This action itself becomes a concrete experience for reflection. Hence, the learning process is suggested to begin with a person carrying out a particular action and then seeing the effects of the action in a certain situation.

The second step is understanding the effects in the particular instance so that if the same action was taken in the same circumstances one would be able to anticipate what would result from the action.

The third step would be grasping the general principle under which the particular instance falls. When the general principle is understood, the last step is its application through action in a new circumstance within the range of generalization.

In this stage learning involves using logic and ideas, not feelings, to understand problems or situations. Typically one would develop ideas to solve problems. Hence, he would rely on (a) systematic planning and (b) active experimentation. The form of learning takes in this stage is active, enhancing, changing, influencing or experimenting with situations.

Weil and Mc Gills (1989) categorized experiential learning into four villages:

.Village one is concerned with accrediting learning from life and work experience.

.Village two considers that the basis for bringing change in the structures of post school education is experiential leaning.

.Village three puts emphasis on experiential learning as a basis for group consciousness.

.Village four is concerned with personal growth and self- awareness.

To put it clearer we suggest the following summary:

Villages	Type of experience	Purpose of learning
V.01	Experience gained in the work Place.	Accreditation of prior and experiential learning
V.02	Experience as first hand alternative to books and theories	Reform of post compulsory education
V.03	Experience of issues as they affect local communities.	Social change or community development
V.04	Experience of life events and personal challenges	Personal growth and development.

Table 3 Experiential learning

### 1.2.8 Learning Domains

Because learning is such a vast theme, and following the rule 'divide to conquer', researchers thought of splitting 'learning' into different domains. In this context Bloom et

al identified three types of learning often referred to as Bloom's Taxonomy. These types are: cognitive, affective and psychomotor.

Cognitive is for mental skills, i.e. knowledge. Affective is for the growth of emotional areas, i.e. attitudes. Psychomotor is for manual or physical skills.

If a training process is to occur, the above skills, knowledge and attitudes should be acquired.

### A-The Cognitive Domain

This domain includes five major categories which are listed below, starting from the simplest behavior to the most complex. The first one must be mastered before shifting to the next one.

#### 1-Knowledge

This involves recall of data such as knowing the safety rules or quoting prices from memory to a customer. Key words related to this category are: define, describe, identify, know, recall, recognize.

#### 2- Comprehension

It is the ability to understand the meaning and its interpretation. This means the ability to state a problem in one's own words. Example, explaining in ones' own words the steps for performing a difficult task.

Key words: comprehend, convert, estimate, give examples, interprets, translate.

### 3- Application

Using a concept in a new situation; applying what was learned into the classroom into novel situations in the work place. Example: Using law of statics to evaluate and analyze students' results in a test.

Key words: apply, demonstrate, discover, produce, solve.

### 4-Analysis

It includes the separation of material or concepts into component parts to understand its organizational structure. Example: using logical deduction while troubleshooting a piece of equipment.

Key words: break down, analyze, separate, illustrate, infer.

### 5-Synthesis

This step consists of building a structure or pattern from various elements. Parts are put together to form a whole. The aim is to create a new meaning – a new structure.

Example: integrating training from several sources to solve a given problem.

Key words: rearrange, reconstruct, revise, summarize.

### 6- Evaluation

In this last category, judgments are made about the value of ideas or materials. Example: select the most efficient solution.

Key words: Appraise, conclude, compare.

## B- The Affective Domain

It is the manner in which we deal with things emotionally. This includes feelings, attitudes, motivation and enthusiasm.

This domain, like the previous one, consists of five categories listed in order:

### 1-Receiving

It is the awareness and willingness to hear with selected attention.

Example: listening to others with respect.

### 2-Responding

In this category, there is active participation of the learner. He reacts to a particular phenomenon; willingness to respond or satisfaction in responding (motivation). Example: the students' participation in class.

### 3-Valuing

This category is concerned with the value or worth a person attaches to a certain object or behavior. It is based on the internalization a set of specific values. Clues to these values are often identifiable because they are expressed in the learner's overt behavior.

Example: a student demonstrating belief in the democratic process is sensitive towards individual and cultural differences, i.e. value diversity.

### 4-Organization

The values are organized into priorities. This happens by contrasting different values resolving conflicts between them, if any, and creating a unique value system .To reach this, there should be emphasis on comparing, relating and synthesizing values.

Example: the students recognize the need for balance between freedom and responsible behavior.

## 5- Internalizing

It is the step of characterization. Values are internalized. The behavior becomes pervasive, consistent predictable and characteristic of the learner.

Example: students show self reliance when working independently and cooperate in group activities .They value people for what they are, not for what they look like.

## C-Psychomotor Domain

This domain includes the use of motor skills, coordination and physical movements. To be satisfactorily developed, these skills require practice and are measured in terms of speed, precision, and techniques in execution. It consists of seven categories:

### 1-Perception

It is the ability to use one's sensory cues to guide motor activity.

Example: a person estimates where a ball will land after it is thrown and then moving to the correct location to catch it.

### 2-Set

It means the readiness to act in a given situation. This set includes mental, physical, and emotional elements. , a person's response to different situations is predetermined by these elements. Example: A learner knows and acts upon a sequence of steps in a manufacturing process.

### 3-Guided response

This category is concerned with the early stages in learning a complex skill. It is guided because it includes imitation and trial and error. Practising achieves adequate performance.

Example: A pupil follows instructions to build a model.

### 4-Mechanism

It is the intermediate stage in learning complex skill .The responses learned previously have become habitual. Consequently, the movements can be performed with more confidence and proficiency.

Example: Using a personal computer or driving a car.

### 5-Complex overt response

Here, the skillful performance of motor acts is reached. Proficiency is characterized by a quick, accurate and highly coordinated performance.

Example: Maneuvering a car into a tight parallel parking spot.

6-Adaptation: the well developed skills enable the individual to modify movement patterns to fit any new requirements.

Example: individual responses effectively to new, unexpected experiences.

7-Origination: creativity based upon highly developed skills is emphasized.

The individual creates new movement patterns to fit a particular situation or problem.

Example: Creating a new gymnastic routine. (New movements while dancing)



### I.2.9 Implementing the Cognitive Domain in the EFL Class

Bloom's taxonomy was and is still widely used whenever designing textbooks and curricula. Its six levels of complexities have been used for four decades as a gauge by which educators can ensure that instruction stimulates and develops students' higher order. Examples of its worthiness were given by Bonnie (July 2004) during an international seminar in Tlemcen-Algeria. According to her, Bloom's taxonomy is implemented in the US educational field and most of the reading material is built around it.

The examples she gave were related to the cognitive domain and were as follows:

a- Speaking about the setting of a story (text)

After reading a text (story) students are asked six questions. Each of these questions should normally be related to one category of the taxonomy. Example:

1- Where does the story take place? ----- related to K (knowledge)

2- Tell everything about the place where the story happen. -----related to C  
(Comprehension)

3- Describe a place that you have visited that is like the setting in the story.--- related to  
A (Application)

4- List three ways the setting of this story is similar to and three ways it is different from where you live. ----- related to AN (Analysis)

5- Design a poster encouraging people to visit the area where the story takes place. If the place has no name, create a name that you think fits the place.---- related to S (Synthesis)

6- Tell why you would or would not like to live where the story takes place ---- related to  
E (Evaluation).

b- Speaking about the content of the story (text)

Bonnie used a question cube (figure 6) where she included the content questions along with corresponding categories:

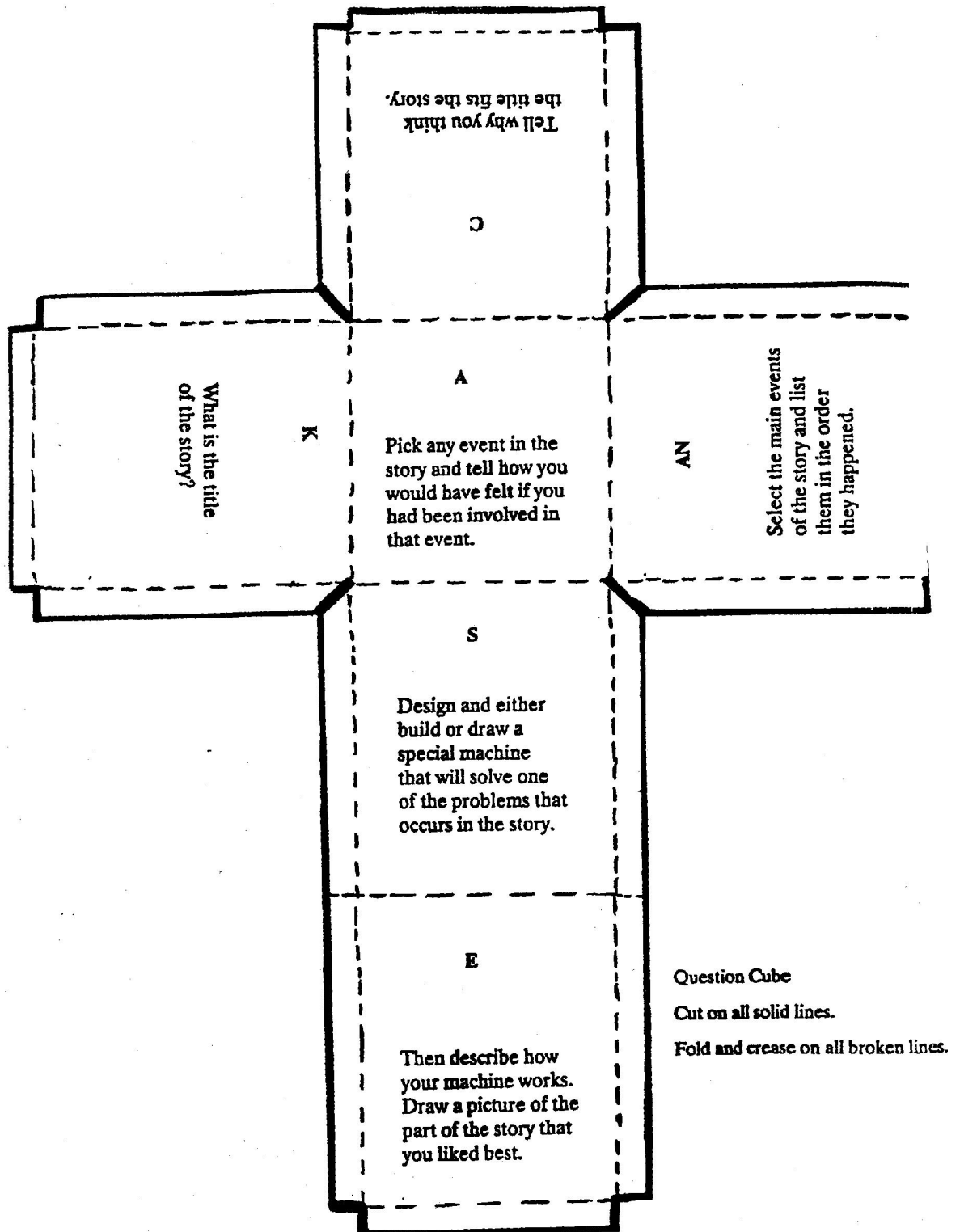


Figure 6 The content of the story

She concluded that one has to know that textbook writers do take into account taxonomies when designing material. They are not bound to stick to one definite taxonomy. They select the ones that meet their needs and objectives.

#### 1.2.10 Approaches to Learning

Speaking about approaches to learning generally involve the realization of two main points. Firstly, different students could undertake a same course, using different approaches. Secondly, one student may use different approaches according to the learning he is undertaking overtime. We deduce, therefore, that an approach to learning is a function. The student and the task (activity) are not undertaken. In this context, Marton and Saljö (1997) distinguished different approaches to learning, they labeled: surface learning, deep learning and strategic learning.

##### A Surface Learning

This approach refers to the collection of unrelated facts and events such as dates of events, geographical places and people.

Surface learning sees learning as chunks of knowledge that can be measured as a fuel gauge starting at empty and arrowing and increasing to full. This is why it is often referred to as the 'atomistic learning'. In time of assessment, this approach will involve the learner in revision techniques such as rote learning, memorizing facts, and any procedure that calls for routine. Learners adopting this approach will find it very difficult to cope with a huge collection of course content. E.g., Teaching History in the Algerian school.

## B Deep Learning Approach

This approach is the converse of Surface learning and is adopted mainly in higher education. Those who adopt it generally make sense of any new learning by relating it to their past knowledge. Unlike surface learning, deep learning is often referred to as holistic learning. Learning is connected and interrelated into a meaningful whole. Unrelated facts have to be avoided.

Coming to assessment, the learner will be actively engaged with ideas; not simply reproducing the content of a course he has attended.

## C Strategic Learning

This approach emphasizes the technique of learning. Key points of this approach involve the organization of one's notes and anticipating the course criteria. Learners' answers are geared to what they think the teacher wants. Resources and time management are a main concern.

We can summarize the above approaches as follows:

Approach	Features	Intention
Surface Approach	.Treating knowledge as unrelated facts. .Memorization.	Acquiring the necessary skills and knowledge.
Deep Approach	.Active engagement with new ideas. .Linking to prior learning.	Making sense of ideas.
Strategic Approach	.Good management of resources. .Clarifying course requirements.	Achieving the highest grades possible

Table 4 Approaches to Learning

In another study process Ference Marton, cited by Michael J. Wallace (1995), revealed two distinct learning approaches:

#### 1- Deep processing approach

In this approach, what matters most is the overall meaning of the text and the understanding of the author's basic arguments. Therefore, the main emphasis is on understanding.

#### 2-Surface processing approach

Learners, in this approach, are concerned with the surface representation of the text, attempting to memorize details and even the actual words used in the passage. The main emphasis is on rote-learning.

It is worth mentioning that Learning for the Twenty First Century, as reported by a public-private coalition named 'Partnership for 21st Century Skills' gives a new up-to-date vision of how 'schools can best prepare students to succeed in the first decades of the 21st century'. Among the coalition's recommendations a call for schools and educators to 'focus on six key elements of 21st century learning':

1. Core Subjects: The authors reaffirm the importance of the core subjects identified by No Child Left Behind but challenge schools and policymakers to expand their focus beyond "basic competency" to understanding the core academic content at much higher levels.
2. Learning Skills: "To cope with the demands of the 21st century," the report states, "students need to know more than core subjects. They need to know how to

use their knowledge and skills-by thinking critically, applying knowledge to new situations, analyzing information, comprehending new ideas, communicating, collaborating, solving problems, and making decisions."

3. 21st Century Tools: Recognizing that "technology is, and will continue to be, a driving force in workplaces, communities, and personal lives in the 21st century," Learning for the 21st Century emphasizes the importance of incorporating information and communication technologies into education from the elementary grades up.
4. 21st Century Context: Experiences that are relevant to students' lives, connected with the world beyond the classroom, and based on authentic projects are central to the sort of education the Partnership for 21st Century Skills defines as the appropriate context for learning in the information age.
5. 21st Century Content: The report's authors believe that certain content essential for preparing students to live and work in a 21st century world is missing from many state and local standards.
6. New Assessments that Measure 21st Century Skills: "As pervasive as assessment seems to be today," the report says, "it remains an emerging and challenging field that demands further study and innovation." Recommendations include moving beyond standardized testing as the sole measure of student learning; balancing traditional tests with classroom assessments to measure the full range of students' skills; and using technology-based assessments to deliver immediate feedback.

In the Algerian context, what was said by 'Partnership for 21st Century Skills' is not enough. Political authorities have to take care of the teacher if they want positive

education development. They must read and remember Neila A. Connors' quote (2000): "If you don't feed the teachers they eat the students".

## Conclusion

Although the primary concern of the above theories is 'learning', we can deduce that no single theory is capable of offering us a comprehensive explanation about the whole learning process. A different insight is given by each theory. Nevertheless, such controversies appear to us as initiations to various research questions which urge humans to think more to solve this complex jigsaw puzzle. This is true research; a never ending process. This never ending process might very well be explored through the following table by Hofstetter (1997) where the terminology of teacher-dominated and cognitive perspectives is used. The former could be considered as an instructive approach and the latter as a constructive approach.

Teacher-Dominated Perspective	Cognitive Perspective
Teacher Centered	Learner Centered
Teachers Present Knowledge	Students Discover and Construct Knowledge
Students Learn Meaning	Students Create Meaning
Learner as Memorizer	Learner as Processor
Learn Facts	Develop Learning Strategies
Rote Memory	Active Memory
Teacher Structures Learning	Social Interaction Provides Instructional Scaffolding

Repetitive	Constructive
Knowledge Is Acquired	Knowledge Is Created
Teacher Provides Resources	Students Find Resources
Individual Study	Cooperative Learning and Peer Interaction
Sequential Instruction	Adaptive Learning
Teacher Manages Student Learning	Students Learn to Manage Their Own Learning
Students Learn Others' Thinking	Students Develop and Reflect on Their Own Thinking
Isolationist	Contextualist
Extrinsic Motivation	Intrinsic Motivation
Reactive Teachers	Proactive Teachers
Knowledge Transmission	Knowledge Formation
Teacher Dominates	Teacher Observes, Coaches, and Facilitates
Mechanistic	Organismic
Behavioralist	Constructivist

Table 5 Teacher-Dominated and Cognitive Perspectives

To end this chapter, we suggest the following quote by Vivekananda emailed to us by Christian Henri Godefroy in 2009. It says little but means a lot:

Translation :

All the powers of the universe are already in you. You are hiding your eyes with your hands. You are complaining it is dark. You must know that around you there is no obscurity. Take your hands away from your eyes and light will appear, light which has always been there.



Original text:

Tous les pouvoirs de l'univers sont déjà en vous. C'est vous qui vous êtes  
caché les yeux avec vos mains. Vous vous plaignez qu'il fait noir. Sachez  
qu'autour de vous il n'est pas de ténèbres. Otez les mains de devant vos yeux  
et la lumière paraîtra, qui était là de toute éternité.

## Chapter Two

### Theories of Foreign Language

#### Learning

##### Introduction

The way a foreign language is learned has been influenced by a whole range of theories, ranging from philosophical beliefs, speculations, to scientific studies. In the early part of the twentieth century, researchers carried out experiments to come out with reliable results: the truth. Such experiments showed and demonstrated the role ‘conditioning’ plays in shaping one’s behavior, the thing which led on to the theory of behaviorism and its effects upon teaching and learning. A fatal attack on Behaviorism came from Noam Chomsky in 1959 .The following conundrum was the center of his objection: "if all language is learnt behavior, how come children and adults frequently say things they have never heard before? “ The fact that we can do these things is the results of having a mental ability to process what we hear , then channeling it through the language processing parts of our brain where rules reside, and where all input adds more information for the better functioning of that processor.

In this chapter we will try to cover the most important foreign language theories and give the reader, mainly teachers, the role of sifting, analyzing and selecting what seems appropriate and efficient for their teaching environment. We will also show how each theory is related to our research topic: Multiple intelligences.

## 2.1 Foreign Language Learning and Behaviorism

Behaviourism is one of the most recognized theories on learning. It is based partly on Ivan Pavlov's conditioned-reflex experiments and consists of providing a stimulus to cause response in a repetitive manner. These experiments were used by B.F. Skinner for the purpose of creating a therapy of behaviour change called conditioning. According to behaviorism, all learning, be it verbal or non verbal, takes place through habit formation process. Learners receive linguistic input from the teacher, followed by positive reinforcement for correct repetition and imitation. This way, habits are formed. Thus, language development is described as the acquisition of a set of habits. Errors, are seen as first language habits interfering with the acquisition of foreign language habits. This has often been linked to the Contrastive Analysis Hypothesis (CAH) which predicts that similarities between first language and second language will help the learner acquire the target language with ease, whereas differences cause the learner to have difficulty. The behaviorist account has proven to be incomplete when explaining foreign language learning. Hence, researchers were bound to move on to new theories of learning language.

Skinner's theory of operant conditioning claims that learning results from a change in overt behaviour. If applied to language acquisition, one learns language by expressing an utterance (operant), which is reinforced with a response by another (consequence). If the imitated behaviour proves to have negative consequences, a learner does not repeat it; if the response proves to be positive, the learner repeats it. This process causes repetition which in its turn leads to habit formation. According to this theory, the rewarded response is a key element to learning. If a desired response is reached, it must be rewarded so that learning could take place. In other words, language is learned when the learner's repetition of words and combinations

of words are praised by the teacher or any caretakers. It is worth mentioning that Behaviourists and John Locke/ Francis Bacon's ideas can be compared like with like: they all agree that we are born a tabula rasa, a blank slate, and the outside stimuli are the source of all learning. From this idea sprang the Audio-lingual Method. For practical classroom application, behaviorism gave birth to many methods. Among them: contracts, consequences, reinforcement, extinction, and behavior modification.

- Contracts

They happen in class between the teacher and the student. They aim at changing a student's negative behaviour into a positive one. Example: a student's composition is very poor. The teacher and student devise a behavioral contract to minimize spelling mistakes. The student will stay for extra help, do dictation activities, crossword puzzles and use dictionary when necessary. Teacher should be available during free periods for guidance and assistance.

- Consequences

These should occur immediately after a behavior. They may be 'positive or negative, expected or unexpected, immediate or long-term, extrinsic or intrinsic, material or symbolic. They occur after the "target" behavior occurs, when either positive or negative reinforcement may be given.

- Positive-reinforcement

This type of reinforcement occurs in the form of a stimulus that increases the probability of a given response in the classroom. Teachers may provide positive reinforcement by:

- Smiling at students or saying "wow" after a correct response.
- Giving good marks.
- Praising students' ability in front of peers and to parents.

#### § Negative. Reinforcement

This type of reinforcement increases "the probability of a response that removes or prevents a hostile condition". Some language teachers mistakenly believe that negative reinforcement is a form of punishment aiming at suppressing a given behavior. In fact "negative reinforcement increases the likelihood of a behavior, as does positive reinforcement".

#### § Punishment

This behavior includes presenting a strong stimulus to decrease the frequency of a special response. The effectiveness of punishment appears in the quick elimination of undesirable behaviors. Examples of punishment include:

- Students who fight are immediately referred to the disciplinary committee.
- Late assignments are given a very poor mark.

#### § Extinction

It aims at decreasing the probability of a response by withdrawing a previously reinforced stimulus. Examples:

A student has developed the habit of saying the punctuation marks when reading aloud. Classmates reinforce the behavior by laughing when he does so. The teacher tells the students not to laugh, thus extinguishing the behavior.

Students often forget to do their grammar homework, and the teacher does nothing to change this situation, contrary to school policy. The rule is later on enforced, and the students never forget to do their grammar homework.

Note: Punishment in our mind can never decrease a given undesired behavior. It says to the student “you have made a mistake” but does not give a remedy or solution.

Evaluation: How is this theory related to Multiple Intelligences theory?

- Ø Changing a student's negative behavior into a positive one = interpersonal intelligence.
- Ø Minimizing spelling mistakes / dictation/CAH = linguistic intelligence.
- Ø conditioned-reflex experiments /crossword puzzles = mathematical/logical intelligence
- Ø repetition and drills = musical intelligence
- Ø intrinsic and extrinsic consequences = interpersonal and intrapersonal intelligence.
- Ø Praising students' ability in front of peers and to parents = interpersonal and intrapersonal intelligence.

## 2.2 Foreign Language Learning and the Cognitive Theory

According to this theory, second language acquisition is seen as the build up of knowledge systems, which eventually calls on automaticity for speaking and understanding. Firstly, learners are to pay attention to what they try to understand or produce. Then, through experience and practice, they become able to use some parts of their knowledge quickly and automatically.

Recently, investigations included a phenomenon labeled 'restructuring'. This explains that things we know and use automatically are based on the interaction of knowledge which fits into an existing system and which may restructure this system. Restructuring may lead to sudden bursts of progress for the learner.

This theory sees second or foreign language acquisition /learning (we use the two terms acquisition and learning interchangeably) as "a conscious and reasoned thinking process which involves a deliberate use of learning strategies". This view considers the learner as 'information-processor', with boundaries or limitations as to how much new information can be assimilated and retained, and who needs strategies to be able to transfer information into memory. We mean by learning strategies "the special ways of processing information that enhance comprehension, learning or retention of information". They constitute one type of learning strategy that students and pupils alike, use in order to learn more successfully. These include the following: repetition, organizing new language, summarizing meaning, guessing meaning from context, using imagery for memorization, association, mnemonics, using clues while skimming or scanning in reading comprehension, underlining key words, self-testing and monitoring. Relevant classroom activities might include review and revision, class vocabulary bags, (a scaffolding approach is to be used with young learners), analysis and discussion of the new language and topics, and use of inductive approaches. It is worth mentioning that such strategies do involve deliberate manipulation of language to improve learning. Here, we have to pay attention at and distinguish between metacognitive strategies which are concerned with organizing learning, and social/ affective strategies which thanks to them interaction can take place.

Teachers are strongly advised to cater for their students' cognitive styles before planning and while presenting a lesson. These styles which refer to 'the way a person thinks and processes information' may include 'field dependence - independence, convergent-divergent, and many others.. As an example, in the field dependence, the field dependent learner is one who processes information globally. This learner is less analytical, not attentive to detail, and sees the perceptual field as a whole. The field independent person on the other hand can easily break the field down into its component parts, he is analytical. Convergers tend to be more active – by doing something, but Divergers tend to be more reflective by watching.

Equipping the learners with the necessary tools to know their cognitive styles, enables them to understand how they prefer to think and then how they can optimize their school work. Concerning the teaching approach which might accommodate this view, scientists thought of implementing the so called 'cognitive-code approach'. This approach which belongs to the 1970s asserted that language learning involved as mentioned in our definitions, an active mental process, as opposed to the Behaviorists' process of habit formation.

A language lesson used to focus on learning grammatical structures but the cognitive code approach emphasized the importance of practising the structures in a meaningful context. These structures were presented inductively, i.e. the rules came after exposure to examples. Unfortunately during that period, there was little use of examples from authentic material. The approach included the clear and structured use of concept questions to help learners identify the limits of use of structure and lexis. A 'PPP' methodology, (Presentation, Practice and Production) was omnipresent in class. It was thought that thanks to it students could gain a clear understanding of a grammatical rule before practising it in meaningful contexts,



### Example

the learners will be able to understand the new grammar 'rule of the day', which is that the past form of regular verbs is made using -ed. The teacher starts her/his lesson with eliciting a dialogue that includes clear examples of the structure. The learners practise it, and the teacher uses it to elicit the rules.

However, scientists today, warn teachers of what we call 'cognitive overload'. This term refers to the situation where a teacher gives too much information or too many activities to the learner. This would result in the student being unable to process information. The language processing of such too many activities would go beyond the processing limits of the learner as a human being. It would hinder learning since it would be a source of anxiety and stress.

Evaluation: How is this theory related to Multiple Intelligences theory?

- Ø Teachers are strongly advised to cater for their students' cognitive styles before planning and while presenting a lesson = interpersonal intelligence.
- Ø such strategies do involve deliberate manipulation of language to improve learning. = linguistic intelligence.
- Ø a conscious and reasoned thinking process which involves a deliberate use of learning strategies = mathematical/logical intelligence
- Ø distinguish between metacognitive strategies which are concerned with organizing learning, and social/ affective strategies which thanks = interpersonal and intrapersonal intelligence.
- Ø It would hinder learning since it would be a source of anxiety and stress = interpersonal and intrapersonal intelligence.

### 2.3 Foreign Language Learning and the Creative Construction View

In this theory, also known as the Creative Construction Hypothesis, learners are thought to construct internal representations of the language being learnt. It is in some respects similar to Chomsky's innatist theory for second language learning. Internal representations are thought to develop towards the full second language system. What distinguishes this theory are its claims that internal processing strategies operate on language input without the learner's production of the language. In other terms, to acquire a foreign language, the learners need not actually speak or write. As learners read or hear samples of the target language, acquisition occurs internally. Thus, the learner's written or spoken productions are seen as an outcome rather than as the cause of the learning process. Creative construction theory was molded by Stephen Krashen and has had the most influence on second language teaching practice. In this respect, Krashen (1982), proposed five central hypotheses:

#### 2.3.1 The Acquisition Learning Hypothesis

In this hypothesis it is suggested that there are two ways for adult second language learners to approach learning: They may learn or acquire a second language. We acquire a language when we engage in meaningful interaction in the target language with no attention to form. We learn a language, on the other hand, through a conscious process of attention to form and error correction in a formal language classroom. For Krashen, acquisition is the more important process since it allows for natural and fluent communication. It is the real road to mastery of any foreign language.

### 2.3.2 The Monitor Hypothesis

According to Krashen, monitor use requires three conditions: sufficient time, focus on form, and knowing the rules. He argues that knowing the rules enables the speaker to polish what he has acquired via real communication. This hypothesis asserts that a student's learned system acts as a monitor to what he is writing or speaking. The learned system check what is being produced, verbally or non verbally. As an example, before a student produces an utterance, he or she internally scans it for errors. The scanner, the learned system, makes the necessary corrections.

### 2.3.3 The Natural Order Hypothesis

This hypothesis claims that the acquisition of a language rules is predictable: some rules are acquired before others. Krashen asserts that the rules which are easiest to state and easy to learn are not necessary the first to be acquired. suggests that the acquisition of grammatical rules follows a natural predictable order. This order is independent of the learner's mother tongue, age, and setting. For example, "in English language, the learner acquires the progressive -ing, plural -s, and active voice before he or she acquires third person -s, or passive voice". (Richards. Platt, & H. Platt, 1992). One may refer to his mother tongue and listen to the children's utterances .He will discover by himself how the child acquires language.

### 2.3.4 The Input Hypothesis

According to this hypothesis, language acquisition occurs while receiving comprehensive input or by understanding messages. Comprehension and acquisition will take place only if the content and structure of the input are beyond the current level of competence of the learner.

### 2.3.5 The Affective Filter Hypothesis

Krashen explains the affective filter as an imaginary barrier which hinders the use of the input available in the environment. The things which are generally affected include: motives, needs, attitudes and emotions. Input is often screened out and made unavailable for acquisition whenever a learner is angry, anxious or bored. When the learner is relaxed and motivated the affective filter will be down.

Robert Gagné (cited by Kevin Kruse.2000) provides a similar model, where the emphasis is put on the formal presentation of rules, and on the active involvement in rule-getting:

1. The student is provided with a model to follow - this may be through watching an expert or teacher perform, or through reading a text; listening to a tape or watching a video. The student himself is to construct hypotheses about how the skill is performed or accomplished.
2. The student actively tries to carry out the task, while helped by the teacher or expert - this is 'cued performance'. It gives the student the opportunity to verify and check the hypotheses that he has built. Thus we may explain to our students how the 'have -ing' form of the verb is used. They listen to our explanation/lesson presentation, and form their own ideas of when the form is or is not correct. They will then try them out to see if they work, through guided and later free practice.

In an article written by Kevin Kruse (2000), Robert Gagné created a nine-step process called the events of instruction, which correlate to the conditions of learning. These events are presented in the figure below with the instructional events in the left column and the associated mental processes in the right column.

Instructional Event	Internal Mental Process
1. Gain attention	Stimuli activates receptors
2. Inform learners of objectives	Creates level of expectation for learning
3. Stimulate recall of prior learning	Retrieval and activation of short-term memory
4. Present the content	Selective perception of content
5. Provide "learning guidance"	Semantic encoding for storage long-term memory
6. Elicit performance (practice)	Responds to questions to enhance encoding and verification
7. Provide feedback	Reinforcement and assessment of correct performance
8. Assess performance	Retrieval and reinforcement of content as final evaluation
9. Enhance retention and transfer to the job	Retrieval and generalization of learned skill to new situation

Table 6 Events of instruction

Evaluation: How is this theory related to Multiple Intelligences theory?

- Ø real communication = interpersonal intelligence.
- Ø the learner's written or spoken productions are seen as an out = linguistic intelligence
- Ø internal processing strategies = Mathematical intelligence
- Ø meaningful interaction in the target language with no attention to form = interpersonal and intrapersonal intelligence
- Ø the different hypotheses proposed by Krashen = intrapersonal and interpersonal intelligences

## 2.4 Interlanguage and Foreign Language Learning

Interlanguage, which is still referred to today in teaching fields, is a concept created by Selinker in 1972. It refers to the type of language produced by second or foreign- language learners who are in the process of learning a new language. But how did the interlanguage assumption develop?

Before the 1960's language was not thought to be a mental phenomenon. Like other forms of human and animal behavior, language was believed to be learnt by processes of habit formation. A child learns his mother tongue by imitating the sounds and patterns he hears around him. Adults reinforce the child's attempts and lead the efforts to the correct forms by approval or disapproval. Cognitive linguists exercised their influence and criticized this explanation of first language acquisition. Language cannot be verbal behavior only, since "children are able to produce an infinite number of utterances that have never heard before". This creativity is only possible because a child does not only parrot but develops a system of rules. Cognitive linguists have shown that children actually do construct their own rule system, and through gradual development this system will correspond to the system of the adults. The acquisition of grammatical rules passes through similar stages. According to cognitive linguists and first language acquisition research, second language learners are viewed as actively constructing rules from the data they encounter and little by little they gradually adapt these rules in the direction of the target language. However wrong and inappropriate learners' sentences may be in regard to the target language system, they are grammatical in their own terms, since they are a product of the learner's own language system. This system gradually develops towards the rule-system of the target language.

Interlanguage refers to the different shapes of the learner's language competence. The term asserts that the learners' language system is neither that of the mother tongue nor that of the second language. Rather, it contains elements of both. Therefore, we should not see errors as signs of failure only, but as evidence that the learner is developing a system. While behaviorism adhered to the teaching methods which use drills and consider errors as signs of failure, interlanguage liberated language teaching and opened the gates to communicative teaching methods. Errors are no longer seen as signs of failure but reflect the students' temporary language system. Therefore they form a natural part of the learning process. Teachers are free now to use teaching activities which do not call for constant supervision of the student's language. What matters most is the message. The place of the accuracy fault-finder has disappeared. Group work and pair work, instead of mechanical drills, have become suitable means for language learning.

In language learning, errors are something natural and unavoidable. According to Richards, Jack C et al. (1992:186) these errors are caused by a variety of processes which include:

1. borrowing patterns from the mother tongue
2. extending patterns from the target language
3. Expressing meanings using the words and grammar which are already know.

Interlanguage falls between the native language and the target language. It is neither the system of L1 nor the system of the L2. Through trial and error and hypothesis testing, learners succeed in establishing closer approximation to the system used by native speakers of the language.

According to Selinker (1972), we should think of the learner not as someone who fails to speak the language he is learning, but as someone who successfully speaks the interlanguage that he has constructed. What we perceive as errors is evidence of the fact that the foreign language learner is not using the same grammar as the native speaker. The question for the teacher then becomes one of knowing how to move the learner from one grammar to another.

Intralinguage processes, due to their complexity, are going to be a source of considerable dangers that await the learner. The most important of these is fossilization. Selinker points out that most of the adult learners never achieve full fluency in L2. They are bound to fossilize at some point or other. Before tackling this concept we feel it is worth defining it to avoid any misunderstanding. Fossilization of a linguistic form, feature, or rule is said to be fossilized when "it becomes permanently established in the interlanguage of a second-language learner in a form that is deviant from the target-language norm and that continues to appear in performance regardless of further exposure to the target language". It may be induced by:

1-teaching/learning methods: when we force a student to produce forms that are beyond his present Intralanguage (IL), then these may fossilize, and prevent the learner from making any further progress or doing better.

2-economic judgement: the learner may very well fossilize if he decides that any added efforts to bring about increases in mastery of the teaching point, are not worthwhile.

Selinker suggests that the learner constructs his IL through the employment of a series of learning strategies. These are defined "behaviours and thoughts that a



learner engages in during learning" which are "intended to influence the learner's encoding process" Weinstein and Mayer (1986: 315).

In our context, they include:

§ Transfer - the use of the L1 to construct a model of the L2. While this was once believed to be mainly negative in its consequences, there is now agreement that the adult learner may use the L1 positively, and that some comparison of the two languages is useful in language learning. It is no longer considered realistic to insist that the learner should have no recourse whatsoever to the L1.

§ Overgeneralization - the learner applies the rules of the L2 to situations in which they are not used by native speakers. (In fact, the strategy itself should be referred to as 'generalization', which is a fundamental way of acquiring or constructing knowledge. It is only when the process leads to erroneous conceptualizations that one can properly use the term 'overgeneralization'.

§ Simplification - the learner often begins by utilising a simple subset of language rules. However, this is not so much a simplification of the TL - one cannot simplify what one does not know - but a retreat to a simplified grammar very similar to the basic rules of many pidgins. Some linguists believe that this is in fact a set of rules given by the Universal Grammar.

This view leads us to reconsider the question of what it means to make an error when speaking a foreign language. As we have seen, some errors may occur as a result of transfer - interference - while some errors may result from the other two processes. On the whole, we can deduce that the making of errors is a natural part of the learning process, and it should not be taken as evidence of perversity on the part of

the learner or acquirer. We should also note the existence of a strategy used by the learner to avoid errors. This strategy referred to as 'avoidance errors', occurs when the learner avoids a given structural form or set of lexical items, because he or she doubts his/her capacity to use them correctly.

We have tried to clarify what the concept of interlanguage and of fossilization convey. We have also explained that language learning proceeds through a series of intermediary languages, with elements being at times in competition with each other. Through a process of elimination and elaboration, the learner progresses, testing his or her hypotheses about the L2 in a variety of ways. The great danger lies in fossilization - and it appears sometimes that all learners reach a stage at which they fossilize unless there is a radical change in aspects of their environment related to SLA. We may derive from these propositions the idea that mistakes on the part of the learner are a necessary part of the learning process, but that they should be surveyed by the teacher for signs of fossilization.

Evaluation: How is this theory related to Multiple Intelligences theory?

- Ø strategy used by the learner to avoid errors.= intrapersonal intelligence.
- Ø opened the gates to communication= linguistic intelligence.
- Ø someone who successfully speaks the interlanguage that he has constructed = interpersonal , intrapersonal and linguistic intelligences

## 2.5 Universal Grammar

Noam Chomsky is one of the best known and influential linguists of the second half of the Twentieth Century. He has made a number of strong claims about language: he suggests that language is an innate faculty - that is to say, humans are born with a set of rules about language in their heads which he refers to as the 'Universal Grammar'. The so called universal grammar is the basis upon which all human languages are built. If an extra terrestrial, as an example, were to visit our planet Earth, he would deduce from the evidence that there was only one language, with a number of local variants. Chomsky gives a number of reasons why this should be so. Among the most important of these reasons is the ease with which children acquire their mother tongue. He claims that it would be little short of a miracle if children learnt their language in the same way that they learn mathematics. This, he says, is because:

1-Children are exposed to very little correctly formed language. When people speak, they constantly interrupt themselves, change their minds, make slips of the tongue and so on. Yet children manage to learn their language all the same. This claim is usually referred to as the Argument from Poverty of the Stimulus.

2- Children do not simply copy the language that they hear around them. They deduce rules from it, which they can then use to produce sentences that they have never heard before. They do not learn a repertoire of phrases and sayings, as the behaviorists believe, but a grammar that generates infinity of new sentences.

Hence, children are born, with the Universal Grammar wired into their brains. When a child begins to listen to his mother or father, he /she will unconsciously recognize

which kind of a language he is dealing with - and he or she will set his grammar to the correct one - this is known as 'setting the parameters'.

It is as if the child were offered at birth a certain number of hypotheses, which he or she then matches with what is spoken or happening around him. This child knows intuitively that there are some words that behave like verbs and others like nouns, and that there is a limited set of possibilities as to their ordering or use within a given phrase. This is not information that he is taught directly by the adults that surround him, but information that is given and assimilated unconsciously. This set of language learning tools, provided at birth, is labeled the Language Acquisition Device. (Notice here, Chomsky uses the term "acquisition" rather than learning, above, we used the two terms interchangeably).

In the 1950s, Noam Chomsky and his followers challenged previous assumptions about language structure and language learning. They asserted that language is creative (not memorized), and rule governed (not based on habit), and that universal phenomena of the human mind underlie all language. Such "Chomskian revolution" initially gave rise to an eclectic approach to teaching. Unfortunately, teachers around the world, Algeria is of course concerned, adhered to eclecticism believing it is the 'salvation' approach. But the poor learning situation did not change at all. In our context, Algerian teachers, because of lack of adequate training, used to teach the way they were taught and believed they were using the eclectic approach, something which was totally different.

In the West, Chomsky's claims have led to two main branches of teaching approaches: the humanistic approaches and content-based communicative approaches, which try to incorporate the need for active learner participation, about

appropriate language input, and about true communication as a human activity. Most recently, there has been also a significant shift toward greater attention to reading and writing as a complement of listening and speaking (as emphasized by the Competency Based Approach used nowadays in Algeria). It is based on a new awareness of significant differences between spoken and written languages, and on the notion that learning a language involves an interaction between the text on the one hand, and the culturally-based world knowledge and experientially-based learning of the learner/ receiver on the other. Developments in the teaching field are putting a great emphasis on 'individualized instruction', more humanistic approaches to language learning, a greater focus on the learner, and greater emphasis on development of communicative, as opposed to merely linguistic competence.

In addition to Chomsky's Generativism, the advances in cognitive science and educational psychology made by Jean Piaget and Lev Semenovich Vygotsky in the first half of the century strongly influenced language teaching theory in the 1960s and 70s. These new trends, favouring more humanistic views and putting a greater focus on the learner and on social interaction, gave way to the Natural (in the USA) and Communicative (in England) approaches. Psychologist Charles Curran's Community Language Learning (also called Counseling Language Learning) and Krashen's and Terrell's Natural Approach, in the 1980s, might be good examples of this latest trend in language teaching.

### Bruner's LASS

What held our attention while revising Chomsky's LAD is the very interesting Jerome Bruner's LASS (Language Acquisition Support System). Bruner asserts that while 'there very well may be, as Chomsky suggests, a Language Acquisition

Device, or LAD, there must also be a Language Acquisition Support System, or LASS'. Jerome Bruner is referring here to the family and entourage of the child.

If we watch closely the way a child interacts with the parents and adults around her, we will see that they constantly provide opportunities for her to acquire her mother - tongue. Mother or father provide ritualized scenarios - the ceremony of eating a meal, having a bath, getting dressed, or playing a game - in which the phases of interaction are rapidly recognized and predicted by the infant. It is within such clear and emotionally exciting contexts that the child first understands the way in which language is used. The utterances of the mother or father are themselves ritualized, and accompany the activity in predictable and comprehensible ways. Gradually, the child moves from a passive situation to an active one, taking over the movements of the caretaker, and, eventually, the language as well. We might cite here as an example the three- year- old Abdurrahman – if it is not a technological trick -who recited the Koran (Algerian TV – October 21st, 2009) though he was not taught to memorize it before.

Bruner cites the example of a well-known childhood game, in which the mother, or other caretaker, disappears and then reappears. Through this ritual, which at first may be accompanied by simple noises or 'Bye-bye Hello', and later by lengthier commentaries, the child is both learning about separation and return and being offered a context within which language, charged with emotive content, may be acquired.

Bruner's conception of the way children learn language is taken a little further by John Macnamara quoted by Timothy Mason in Timothy Mason's Site (2007), who believes that children, instead of having 'an in-built language device', they have an

innate ability to grasp meaning into social situations. It is this capacity that makes them capable of understanding language, and therefore learning or acquiring it with ease, rather than Chomsky's LAD.

We can deduce that Chomsky believes the child is autonomous in the creation of language because he is programmed to learn. In the point of view of Bruner, the program is indeed in place, but the social conditions become more important. The child is still an active participant, is still essentially creative in his approach to language acquisition, but the role of the parents and those around him is also primordial.

How about the language teacher? What role did she/he play - is he playing now? We believe the various methods did and still impose the role a teacher should play when in class. We might get a synoptic view of the teacher's roles within various methods by looking at the following chart taken from Online Resources: Digests September 2001- Issue Paper.

TEACHING METHODS AND TEACHER & LEARNER ROLES		
Method	Teacher Roles	Learner Roles
Situational Language Teaching	Context Setter	Imitator
	Error Corrector	Memorizer
Audio-lingualism	Language Modeler	Pattern Practicer
	Drill Leader	Accuracy Enthusiast
Communicative Language Teaching	Needs Analyst	Improviser
Task Design	Task Designer	Negotiator

Total Physical Response	Commander	Order Taker
	Action Monitor	Performer
Community Language Learning	Counselor	Collaborator
	Paraphraser	Whole Person
The Natural Approach	Actor	Guesser
	Props User	Immerser
Suggestopedia	Auto-hypnotist	Relaxer
	Authority Figure	True-Believer

Table 7 Methods and Teacher and Learner Roles

As suggested in the figure, some schools of methodology see the teacher as ideal language model and commander of classroom activity (e.g., Audio-Lingual Method, Natural Approach, Suggestopedia, Total Physical Response) whereas others see the teacher as background facilitator and classroom colleague to the learners or co-learner (e.g., Communicative Language Teaching, Cooperative Language Learning). There are other global issues to which spokespersons for the various methods and approaches respond in alternative ways. For example, should second language learning by adults be modeled on first language learning by children? One set of schools (e.g., Total Physical Response, Natural Approach) notes that first language acquisition is the only universally successful model of language learning we have, and that second language pedagogy must necessarily model itself on first language acquisition. An opposed view (e.g., Silent Way, Suggestopedia) observes that adults have different brains, interests, timing constraints, and learning environments than do children, and that adult classroom learning therefore has to be fashioned in a way



quite dissimilar to the way in which nature fashions how first languages are learned or acquired by children.

Another key distinction turns on the role of perception versus production in early stages of language learning. One school of thought proposes that learners should begin to communicate, to use a new language actively, on first contact (e.g., Audio-Lingual Method, Silent Way, and Community Language Learning), while the other school of thought asserts that an initial and prolonged period of reception which include the listening and reading skills, should precede any attempts at production (e.g., Natural Approach).

Evaluation: How is this theory related to Multiple Intelligences theory?

- Ø Children deduce rules they can use to produce sentences= intrapersonal interpersonal/linguistic/mathematical intelligences
- Ø A grammar that generates infinity of new sentences = linguistic intelligence.
- Ø humans are born with a set of rules about language in their heads = mathematical/logical intelligence
- Ø setting the parameters = interpersonal and intrapersonal intelligence

## 2.6 The Acculturation Model

Researchers today, claim that culture plays an important role in learning or acquiring a foreign language. The Acculturation Model is the most used tool to deal with the interrelation between language learning and the target language culture. This model of second language acquisition was created by John Schumann in 1978 and is still widely used nowadays. Acculturation can be defined as the integration of a second language learner with a target language community/culture. Schumann

explains the correlation between acculturation and second language acquisition as follows:

Second language acquisition is just one aspect of acculturation and the degree to which a learner acculturates to the target language group will control the degree to which he acquires the second language

(Schumann 1978, cited in Ellis 1985:251).

The understanding of the cultural and linguistic similarities and differences between the first and second languages is essential to the understanding of how students learn about the new culture and how they interpret, acquire and produce English. The relationship between language and culture is important in determining the degree of acculturation. Schumann (1978) describes acculturation as the social and psychological integration of second language learners with the target language (TL) group. Within his acculturation model, Schumann points out that social adaptation is an integration strategy which involves second language learners' adjustment to the lifestyles and values of the target language group while maintaining their own lifestyle and values for intergroup use.

Acculturations, and accordingly second language acquisition, are affected by social and psychological distances, which decide upon the quantity and quality of a contact with a target language community to which a learner is exposed. Social distance describes the distance between different groups of society. The notion includes all differences such as social class, race/ethnicity or sexuality, but also the fact that the different groups do not mix. Social distance is the result of a number of factors which affect the learner as a member of a social group in contact with the

target language group. Psychological distance is the result of various affective factors which concern the learner as an individual (Ellis 1985:252).

The social variables determine what the good and bad conditions for learning situations are. Seven distinguished variables are suggested (Ellis 1985):

1. Political, economical, cultural equality of a target language and L2 group. If one group is dominant over the other, then the optimal second language acquisition will not occur. If two groups are approximately equal, then the contact between the groups' members is greater, and the second language acquisition is encouraged.
2. Assimilation, preservation, and adaptation. The preferable condition for second language acquisition is when an L2 group wants to assimilate with the target language group, and adapt to its culture. However, the second language acquisition will not be obtained when the L2 group desires to remain linguistically and culturally unbounded with the target language group.
3. Enclosure. The more social institutions the target language group and L2 group have in common, the better conditions for second language acquisition.
4. Cohesiveness and size. The L2 group should not be too large in size, neither should it be cohesive, in order to provide a good contact between the members of the group, and hence, supply optimal conditions for second language acquisition.
5. Congruence. The bigger correspondence between the cultures of the two groups, the better conditions for second language acquisition.
6. Attitude. Both groups need to have positive attitudes towards one another for the conditions for second language acquisition to be favorable.

7. Intended length of residence. When the L2 group members wish to stay in the target language environment for an extended period of time, the acquisition process and motivation to learn will be more likely to occur.

The psychological variables deciding upon optimal second language acquisition and learning situations are as follows (Ellis 1985:252):

1. Language shock. It is characterized by the feelings a learner experiences while using the second language, for example, the feelings of confusion, and doubt.
2. Culture shock. Feelings of an L2 learner caused by the differences between the learner's culture and the target language culture, i.e. stress, disorientation, and fear.
3. Motivation. A factor describing an L2 learner's desire to learn a target language. This motivation might be intrinsic or extrinsic.
4. Ego boundaries. A degree to which an L2 learner is ready to accept new identity resulting from the membership in a target language community.

Schumann, in his theory, also indicates that early second language acquisition has some characteristics in common with the formation of pidgin languages, in that a learner's language becomes pidginized when he fails to get through early stages of acquisition due to social and/or psychological distances: "pidginization may characterize all early second language acquisition and (...) under conditions of social and psychological distance it persists" (Schumann 1978:110, cited in Ellis 1985:253). When it persists, a learner fossilizes, and consequently, he will be restricted to the use of only one out of three functions of language, the communicative one. The other function, integrative one, used by a speaker to show

integrity with a particular social group, can be gained by both native speakers and L2 learners who do not fossilize in early stages. The last function of a language distinguished by Schumann, the expressive function, will never be fully mastered by either native speakers or L2 learners (Ellis 1985).

We may deduce that the more one acculturates the more efficient in the target language he becomes. Schumann confirms this when he said that 'second language learners will acquire the TL to the degree they acculturate to the host society'.

In Algeria the situation is not of bicultural and bilingual nature. It is much more. For some students English is the third foreign language: Tamazight- Arabic- French and English. Is not there an acculturation overload? How can support them as they adapt to the mainstream culture and learn English? How can we make their acculturation to English a successful one? Our educational system often focuses on the process of second language acquisition, ignoring how students' first language and culture may influence the way they understand, interpret and produce English. For meaningful and successful communication, our students need to be aware of the subtle and obvious differences between their first and second , and may be a third and a fourth culture.

The importance of interpreting speech styles and speech acts appropriately to communicate effectively is a critical component in second language teaching and learning. This interpretation can be difficult because of differences between the student's native language and English. As educators, we need to appreciate not only our students' native culture and language, but also how and why their background might influence their second language interpretation, acquisition and production. Educators need to consider the social and affective aspects of learning a second

language. As a result, a new and better way for students to relate to second language learning may be provided.

Evaluation: How is this theory related to Multiple Intelligences theory?

- Ø Social adaptation= intrapersonal intelligence/interpersonal intelligence
- Ø Motivation to learn language = linguistic / intrapersonal intelligence
- Ø Acculturation = musical intelligence
- Ø Ego boundaries = interpersonal and intrapersonal intelligence.
- Ø integration of a second language learner with a target language community/culture = interpersonal , intrapersonal and linguistic intelligences

Before shifting to our own evaluation, we suggest the following summary of English Language Teaching History written by Brown, H. D. (2000) which offers the reader a synopsis of languages learning/teaching:

### The Classical Method

Back in the 17th, 18th and 19th centuries, foreign language learning was associated with the learning of Latin and Greek, both supposed to be the main source of intellectuality and erudition. At the time, focus was on grammatical rules, syntactic structures, along with rote memorization of vocabulary and translation of literary texts. Provision for the oral use of the languages under study was totally absent. Late in the nineteenth century, this method came to be known as the Grammar Translation Method. It requires learners to read and translate whole texts word for word and memorize numerous grammatical rules and exceptions as well as enormous vocabulary lists.

It is widely recognized that the Grammar Translation Method is still one of the most popular and favorite models of language teaching, which has been rather stalwart and impervious to educational reforms. We can find it mainly in French speaking countries and in the Middle East. With hindsight, we could say that its contribution to language learning has been lamentably restricted, since it has shifted the focus from the real and authentic language to a "dissected body" of nouns, adjectives, and prepositions. Nothing is done to enhance a student's communicative ability in the foreign language.

#### Gouin and Berlitz - The Direct Method

Gouin started building a methodology around observation of child language learning. It all began when he discovered that his three-year-old nephew had managed to become a "chatterbox" of French - a fact that made him believe that children possess the secret to learning a language. Thus, he began observing his nephew and came to the conclusion that language learning is a matter of "transforming perceptions into conceptions and then using language to represent these conceptions". Equipped with this knowledge, he devised a teaching method premised upon these insights. It was against this background that the Series Method saw light, which taught learners directly a "series" of connected sentences that are easy to understand. For instance,

I stretch out my arm. I take hold of the handle. I turn the handle. I open the door. I pull the door.

A: Good morning. How are you? B: Fine thanks and you? (Algerian Beginners textbooks)

Nevertheless, this approach to language learning was short-lived and, gave place to the Direct Method, posited by Charles Berlitz. The basic tenet of Berlitz's method was that second language learning is similar to first language learning. In this light, there should be lots of oral interaction, spontaneous use of the language, no translation, and little if any analysis of grammatical rules and syntactic structures. In short, the principles of the Direct Method were as follows:

1. Classroom instruction was conducted exclusively in the target language.
2. Only everyday vocabulary and sentences were taught.
3. Oral communication skills were built up in a carefully graded progression organized around question-and-answer exchanges between teachers and students in small, intensive classes.
4. Grammar was taught inductively.
5. New teaching points were introduced orally.
6. Concrete vocabulary was taught through demonstration, objects, and pictures; abstract vocabulary was taught by association of ideas.
7. Both speech and listening comprehension were taught.
8. Correct pronunciation and grammar were emphasized.

The Direct Method enjoyed great popularity at the end of the nineteenth century and the beginning of the twentieth but it was difficult to implement, mainly because of budget, time, and classroom size problems. Yet, after a period of decline, this method has been revived, leading to the emergence of the Audio-lingual Method.



## The Audio-lingual Method

The outbreak of World War II heightened the need for Americans to become orally proficient in the languages of their allies and enemies alike. To this end, bits and pieces of the Direct Method were appropriated in order to form and support this new method, the "Army Method," which came to be known in the 1950s as the Audio-lingual Method.

The Audio-lingual Method was based on linguistic and psychological theory and one of its main premises was the scientific descriptive analysis of a wide assortment of languages. On the other hand, conditioning and habit-formation models of learning put forward by behaviorist psychologists were integrated with the pattern practices of the Audio-lingual Method. The following points sum up the characteristics of the method:

- Dependence on mimicry and memorization of set phrases
- Teaching structural patterns by means of repetitive drills. No grammatical explanation is allowed.
- Learning vocabulary in context
- Use of tapes and visual aids /realia
- Focus on pronunciation
- Immediate reinforcement of correct responses

Drills and pattern practice are typical of the Audiolingual method. These include

Repetition. The student is to repeat an utterance as soon as he hears it.

Inflection. Teacher: I ate the apple. Student: I ate the apples

Replacement Teacher: He bought the car for half-price. Student: He bought it for

half-price.

Restatement      Teacher: Tell me not to be late. Student: Don't be late!

The popularity of this approach waned after 1964, because of its shortcomings. It fell short of promoting true communicative ability since it gave undue attention to memorization and drilling, while ignoring the role of context and world knowledge in language learning. After all, it was proved that language was not acquired through a process of habit formation.

### Suggestopedia

Suggestopedia promised great results if we use our brain power and inner capacities. Lozanov (1979) believed that we are capable of learning much more than we think. Drawing upon Soviet psychological research on yoga and extrasensory perception, he came up with a method for learning that used relaxation as a means of retaining new knowledge and material. It stands to reason that music played a pivotal role in his method. Lozanov tried to present vocabulary, readings, role-plays and drama with classical music in the background and students sitting in comfortable seats. In this way, students became "suggestible."

Of course, suggestopedia offered valuable insights into the "super learning" powers of our brain but it was demolished on several fronts. For instance, what happens if our classrooms are bereft of such amenities as comfortable seats, tape recorders or Compact Disk players? We should remember it is the case of most developing countries. Certainly, this method is insightful and constructive and can be practised from time to time, without necessarily having to adhere to all its premises. A relaxed

mind is an open, ready to broaden mind and it can help a student to feel more confident and, in a sense, pliable.

### The Silent Way

The Silent Way rested on cognitive rather than affective arguments, and was characterized by a problem-solving approach to learning. Gattegno (1972) held that it is in learners' best interests to develop independence and autonomy and cooperate with each other in solving language problems. The teacher is supposed to be silent - hence the name of the method - and must disabuse himself of the tendency to explain everything to them. Spoonfeeding must have no place in the class.

The Silent Way like all theories received an onslaught of criticism. More specifically, it was considered very harsh, as the teacher was distant and, in general lines, the classroom environment was not conducive to true learning.

### Strategies-based instruction

The work of O'Malley and Chamot (1990), and others before and after them, emphasized the importance of style awareness and strategy development in ensuring mastery of a foreign language. In this vein, many textbooks and entire syllabi offered guidelines on constructing strategy-building activities. Below there is an example of a list of the "Ten Commandments" for good language learning (taken from Brown, H. D. (2000: 137) :

	Teacher's Version	Learner's Version
1	Lower inhibitions	Fear not!
2	Encourage risk-taking	Dive in
3	Build self-confidence	Believe in yourself
4	Develop intrinsic motivation	Seize the day
5	Engage in cooperative learning	Love thy neighbour
6	Use right-brain processes	Get the BIG picture
7	Promote ambiguity tolerance	Cope with the chaos
8	Practice intuition	Go with your hunches
9	Process error feedback	Make mistakes work FOR you
10	Set personal goals	Set your own goals

Table 8 Ten Commandments for Language Learning

These suggestions are able to sensitize learners to the importance of attaining autonomy, which is taking charge of their own learning, and not expecting the teacher to deliver everything to them.

### Communicative Language Teaching

The need for communication has been relentless. It has led to the emergence of the Communicative Language Teaching. At this juncture, we should say that Communicative Language Teaching is not a method; it is an approach, which transcends the boundaries of methods and techniques. It is an approach to the teaching of second and foreign languages that emphasizes information gap and interaction as both the means and the goal of learning a language. It is also referred to as the “communicative approach”. Thanks to it teachers are now better equipped

with the necessary means to teach communication through authentic communication, not merely theorizing about it.

Let us see the basic premises of this approach:

- Focus on all of the components of communicative competence, not only grammatical or linguistic competence. Engaging learners in the pragmatic, notional/functional use of language for meaningful purposes
- Viewing fluency and accuracy as complementary principles underpinning communicative techniques
- Using the language in unrehearsed contexts
- Stimulates 'real life' communication.
- The focus is not upon the four skills but upon using language to communicate and to learn

This approach was once criticized because it was thought to be a ferocious enemy to grammar teaching. It was Wilga Rivers who clarified the concept with her famous quote : "thinking of the communicative approach without grammar is thinking of a hen without a skeleton".

As an attempt to enrich the above information, we have thought of including new original suggestions under the subtitle:

### A Weatherall Approach to Foreign Language Teaching

Most of the learners around the world have been driven for years and years. They have been spoon-fed like babies and have been parroting just what scholars

said. The quote "spoon feeding in the long run teaches the baby but the shape of the spoon" does perfectly apply in this situation.

If we carefully study the various language approaches that have been used during the 20th century and today, we will discover that each approach claims to be paramount and denies the validity of all that preceded. Who is right and who is wrong? Which approach should learners adhere to? Which methodology should we apply? Which "which" should we follow?

### What Does Psychology Say?

"The Grammar Translation Method appealed to the so called faculty psychology in its emphasis on training the mind; the audio-lingual method incorporated some of the views of behaviouristic learning theory, notably the concept of habit and the law of effect; the cognitive code tapped the potentially rich areas of problem solving..." Steven H. McDonough (1986.)

From the above quotation we deduce that all the approaches are valid and they complete one another. Doubtlessly some of their principles need to be neglected because though efficient at a given period, they might not fit our present space and time.

Whatever appears to be new today is but a new version of the past with a "new face" with a new celebrity name. To put an end to this "cheating" we would suggest the "ECPT Approach" which does not deny the validity of "all that preceded". It focuses on the teacher's flexibility, autonomy, imagination and creativity. The ECPT stands for:

- E : Ending  
C: Classroom  
P: Prescribed  
T: Teaching  
A: Approaches

It recommends:

a-Before facing the class, a teacher must be provided with as much information as possible about education findings of those who study language scientifically: linguists, psychologists, sociolinguists, neurologists etc.

b-When well trained, this teacher should be the only person to decide what method/technique to use when in class. His role would not be limited to presenting lessons. He would be responsible for what Pit Corder calls "the language teaching operation": understanding students, planning lessons outside school, presenting lessons according to his students' level and styles, guiding evaluating, and improving. No one can deny the fact that a teacher in an African village knows his students and their preferred channels of learning better than the most efficient scholar in the world. He is the only one who knows what motivates his students, what demotivates them; what they like and what they dislike. He is part of his students and the students are part of him: Gazelles can never be led by a tiger!

Some teachers may have a choice towards modernity and believe that the best way to excel in teaching is to adhere to it. This might be true in very specific situations. But one has first to understand the meaning of 'modern'. Does this word in the USA carry the same meaning in Africa or Asia? A chalkboard might be an old

fashioned object in the USA but very 'modern' in some part of the world. Everything is relevant to a situation, time and space and all that glitters is not gold.

It is worth reminding the teachers that approaches to teaching should be characterized by motivation on one hand and transmissive and facilitative teaching orientations on the other. Conceiving teaching as transmissive requires the use of content-centered approaches. The facilitative teaching requires the use learning centered approaches. Both of them are a "must" for better teaching achievements.

To illustrate what we have said up to now, we suggest the following drawing along with relevant explanation:



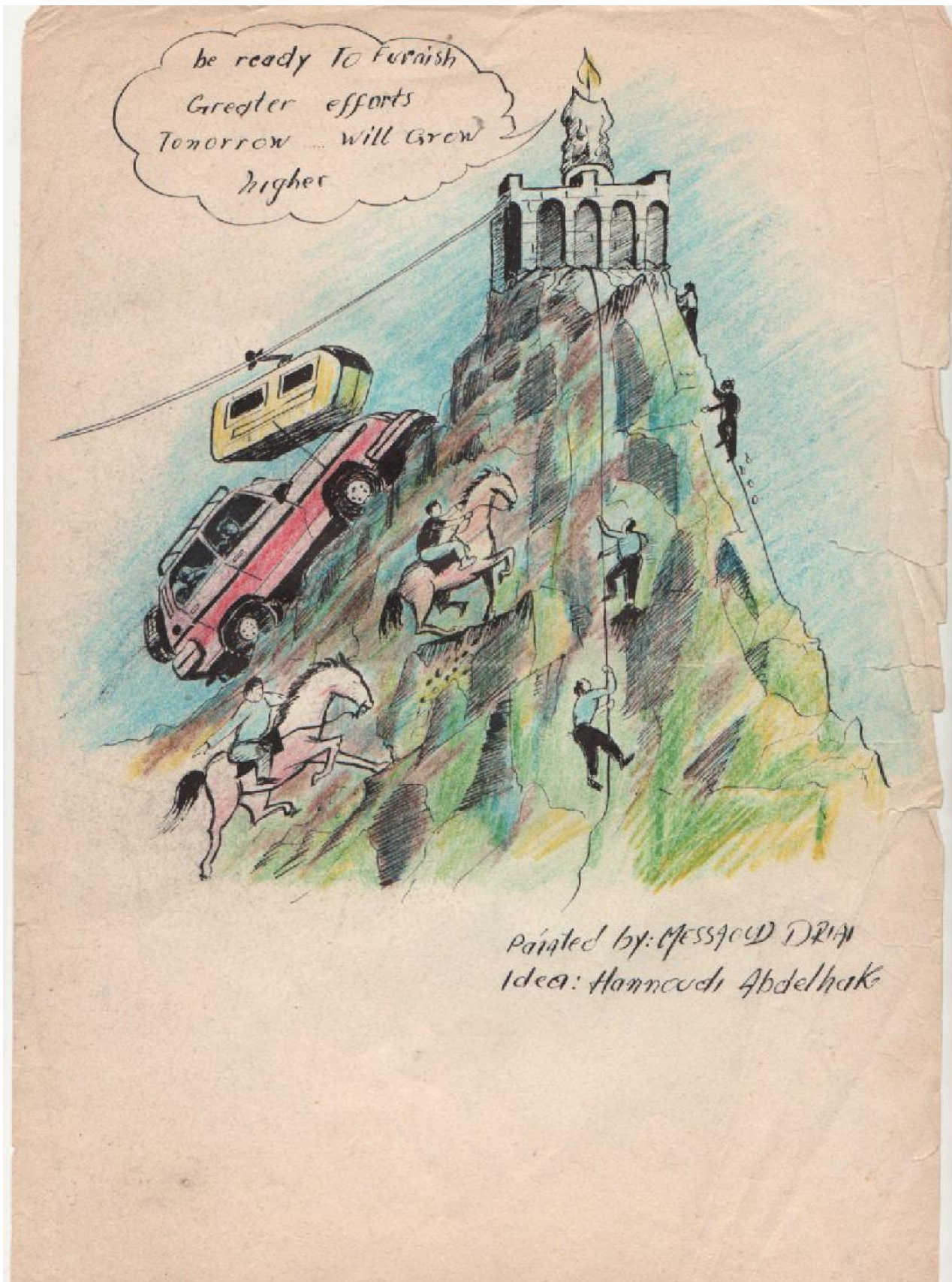


Figure 7 The ECPT Approach

To reach successfully the final objective, which is the candle, what is the best way to follow? We believe the regular teacher is the only one who can decide.

1-If his students are good mountain climbers, he will set them to cross the mountains and get the candle.

2-If they are good swimmers, he will set them to cross the river and get the candle.

3-If they are short sighted or blind, he will set them to follow the posts and get the candle.

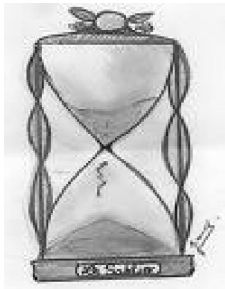
5-If they are equipped with cars, he will set them to use the road.

6-If they have got a helicopter (the case of some students in the USA), he will set them to fly and get the candle.

#### How Does ECPTA Regard Language Teaching Approaches?

The ECPTA believes that all approaches are parts that constitute a "one". This "one" is always growing and developing according to the development of space and time. To get the idea clearer we suggest the following examples:

## 1 The Hourglass



- 1- Glass + Sand = Structural Approach
- 2- The shape of the glass +sand= Audio-visual Approach
- 3- The moving of the sand = Functional Approach
- 4- The concept of time depicted by the movement of sand = communicative approach

## 2 Years later ... The Clock (a new approach to time and space)



- 1- Cogwheels + hands +springs+ metal = Structural Approach
- 2- Shape of the clock+ of numbers+ of hands = Audio-visual Approach
- 3- Functioning of cogwheels, springs, hands = Functional Approach
- 4- Time shown by hands and numbers = Communicative Approach

## 3 Nowadays : The Digital Clock



Each part of this clock represents one of the above mentioned approaches.

- Would it be possible to have an hourglass without sand and glass?
- Would it be possible to have a clock without cogwheels, springs and hands?

-Would it be possible to have a digital clock without a battery and electronic parts?

Doubtlessly in the future we shall get new clocks with new parts but the concept of time remains for ever the same. The same thing might be said about language teaching methods and approaches. But "Man" who is behind all this represents the human element which gives meaning and life to clocks and all language teaching approaches.

In addition to all the above information, teachers should bear in mind that the beginning of a successful operation relies much on a successful and efficient pupil's needs analysis. The quote which says: "The tragedy of education is played in two scenes - incompetent pupils facing competent teachers and incompetent teachers facing competent pupils." is an answer to those who neglect learners' needs analysis. When you know what your learners need, you will be prepared to respond appropriately when the unexpected crops up.

Conducting a needs analysis is a way in which educators can find out more about the needs of their pupils. It might be useful to devise a needs analysis questionnaire, before designing a teaching programme to make sure that their EFL lessons address the learners' particular needs and individual learning styles and multiple intelligences. A good needs analysis questionnaire is the best way of finding out about pupils' English language requirements and experience, their actual level of English and their true English needs. The needs analysis questionnaire should include questions which allow teachers to get to know more about pupils and their interests, so they can make lessons more personally directed and stimulating. A needs analysis questionnaire may include the following questions (the questions are not original but taken from various sources):

What experience do you have of learning English?

When do you use English?

Who do you communicate in English with?

Do you use English outside school?

Do you use or need English in these situations:

social situations

meetings and discussions

negotiations

telephone calls

report writing

e-mails

How advanced are you using English generally, on a scale of 1-5?

(1= beginner; 2= basic; 3= intermediate; 4= advanced; 5 = very advanced)

How confident are you using English in the following situations?

(The following functions appear in the Algerian secondary- school syllabus)

Introducing yourself

Ordering food in a restaurant

Asking for directions

Shopping

Making general conversation

Writing a postcard

writing different kinds of letters

using the telephone



Describing a place

Using numbers

Giving opinions

planning future activities

etc.

-What experience do you have of learning other languages?

-What are your main three reasons for learning English?

-What do you find most difficult when learning English? (E.g. speaking, writing, reading, listening, grammar, pronunciation)

Of course, the teacher is urged to include and select the questions which allow him to tailor his task according to the learners' needs. His work would be then, purposeful and interesting. It must give learners a boost up the ladder of knowledge. Furthermore, age and gender of the learners are to be taken into account because they do influence the teaching operation. Adequate teaching materials will empower their will. Teachers should remember that "the difference between a successful person and others is not a lack of strength, not a lack of knowledge, but rather a lack of will."

## CONCLUSION

Theories on learning language methodology are numerous. We must first of all conclude that when we learn something, some sort of change is to occur within us. Also, we should remember that learning occurs through life and though it often takes place in a social context, it is a highly individualized process; we all have different learning/cognitive styles.

One of the most recognized theories on learning a foreign language is called Behaviourism. It is based partly on the conditioned-reflex experiments (originated by Ivan Pavlov). In the language class, part of this theory in practice consists of providing a stimulus to cause a given response in a repetitive manner. American B.F. Skinner made much use of it to create a therapy of behaviour modification he labelled 'conditioning'. The 'famous' audio-lingual language learning approach which has been used and is still been used today in Algeria, came about as a result of this learning theory; it involved a lot of listen/repeat exercises, transformation drills, and positive reinforcement. Those traditional learning theories emphasized the role of reinforcement provided by environmental agencies. Language was viewed as a set of habits that are conditioned to stimuli in the environment. Hence, imitation and practice of new language form the process by which language behavior develops. Generalization of learning forms is enough to 'account for language novel uses'.

As a reaction to Skinner and Behaviorism, a new theory of language acquisition emerges and attributes to the child specific innate competencies which help him discover the rules of the language he is exposed to. Imitation, practice, reinforcement and generalization are no longer, (theoretically speaking because they are still being used today), productive conceptions of language acquisition.

Chomsky, the source of this controversy, asserts that all human beings are equipped with a 'black box' or 'Language Acquisition Device' (LAD). This 'Language Acquisition Device' allows a child to formulate rules of language based on the input they receive. In other words, the mind contains blueprints for grammatical rules and once activated, the potential of creativity follows. Krashen sifted and used Chomsky's findings to build his own theory of foreign language learning. He announced:

- there is a distinction between acquisition and learning. Language is learnt in a natural order not in a programmed way.
- acquired language enables us to express ourselves freely - learned language allows us to monitor our production - but only useful in limited circumstances.
- we learn language through 'processing comprehensible input' - we do not need to ask the learner to produce language – she/he automatically will when he is ready to do it.

Another relevant learning theory to our chapter is known as Developmental Psychology, partially credited to Jean Piaget, who determined that learning takes place in very predictable, sequential, innately determined stages. His scientific findings in early childhood development studies and his experiments have been implemented with people of all ages. He believed that language acquisition stems and develops mainly from 'a combination of developmental readiness stages, social interaction, and an individual's unique interpretation process'. Piaget's theories led to the beginning of the Cognitive Learning Theories which criticised and considered behaviorism way too simplistic and parochial in explaining human learning. These theories establish that human beings learn through experiences; 'a life-long series of



trial and error'. His theory led to less mechanistic and more humanistic approaches in language learning. In the 1980s, these theories in turn came to be overshadowed and denied by more interactive views of language learning/ teaching, which came to be known as Communicative Language Teaching (CLT). Communicative Language Teaching subscribed to a broad set of principles such as:

- Learners learn a language through using it to communicate.
- Authentic and meaningful communication should be the goal of classroom activities.
- Fluency is an important dimension of communication.
- Communication involves the integration of different language skills.
- Learning is a process of creative construction and thus subject to trial and error.

Whether one agrees with previous theories for learning a language or not, the important implication in a course of English as a Foreign Language is that students learn and acquire a given language by means of eclectic (combination) approaches. The combination of theoretical preparation and teaching experience is the key element that will produce a good English language teacher. A good teacher, to our mind, is the one who chooses and works with whatever materials, techniques and steps that work well for the learner, suits the learner's cognitive styles, regardless of the theory of learning. In other words, as teachers may apply the different theories of learning, they need to keep awareness that these theories are subjective by their own nature. Each denies the validity of the others. What is now and what is next? The future is uncertain and no methodological directions in second language teaching can be anticipated. Some believe in carrying and refining the current trends; others might

appear a bit 'science-fiction-like' in their vision. Whatever occurs to be new, we still believe in and adhere to our own findings suggested in 'our personal comments' and labeled the ECPTA.

## Chapter Two

### Theories of Foreign Language

#### Learning

##### Introduction

The way a foreign language is learned has been influenced by a whole range of theories, ranging from philosophical beliefs, speculations, to scientific studies. In the early part of the twentieth century, researchers carried out experiments to come out with reliable results: the truth. Such experiments showed and demonstrated the role ‘conditioning’ plays in shaping one’s behavior, the thing which led on to the theory of behaviorism and its effects upon teaching and learning. A fatal attack on Behaviorism came from Noam Chomsky in 1959 .The following conundrum was the center of his objection: "if all language is learnt behavior, how come children and adults frequently say things they have never heard before? “ The fact that we can do these things is the results of having a mental ability to process what we hear , then channeling it through the language processing parts of our brain where rules reside, and where all input adds more information for the better functioning of that processor.

In this chapter we will try to cover the most important foreign language theories and give the reader, mainly teachers, the role of sifting, analyzing and selecting what seems appropriate and efficient for their teaching environment. We will also show how each theory is related to our research topic: Multiple intelligences.

## 2.1 Foreign Language Learning and Behaviorism

Behaviourism is one of the most recognized theories on learning. It is based partly on Ivan Pavlov's conditioned-reflex experiments and consists of providing a stimulus to cause response in a repetitive manner. These experiments were used by B.F. Skinner for the purpose of creating a therapy of behaviour change called conditioning. According to behaviorism, all learning, be it verbal or non verbal, takes place through habit formation process. Learners receive linguistic input from the teacher, followed by positive reinforcement for correct repetition and imitation. This way, habits are formed. Thus, language development is described as the acquisition of a set of habits. Errors, are seen as first language habits interfering with the acquisition of foreign language habits. This has often been linked to the Contrastive Analysis Hypothesis (CAH) which predicts that similarities between first language and second language will help the learner acquire the target language with ease, whereas differences cause the learner to have difficulty. The behaviorist account has proven to be incomplete when explaining foreign language learning. Hence, researchers were bound to move on to new theories of learning language.

Skinner's theory of operant conditioning claims that learning results from a change in overt behaviour. If applied to language acquisition, one learns language by expressing an utterance (operant), which is reinforced with a response by another (consequence). If the imitated behaviour proves to have negative consequences, a learner does not repeat it; if the response proves to be positive, the learner repeats it. This process causes repetition which in its turn leads to habit formation. According to this theory, the rewarded response is a key element to learning. If a desired response is reached, it must be rewarded so that learning could take place. In other words, language is learned when the learner's repetition of words and combinations

of words are praised by the teacher or any caretakers. It is worth mentioning that Behaviourists and John Locke/ Francis Bacon's ideas can be compared like with like: they all agree that we are born a tabula rasa, a blank slate, and the outside stimuli are the source of all learning. From this idea sprang the Audio-lingual Method. For practical classroom application, behaviorism gave birth to many methods. Among them: contracts, consequences, reinforcement, extinction, and behavior modification.

- Contracts

They happen in class between the teacher and the student. They aim at changing a student's negative behaviour into a positive one. Example: a student's composition is very poor. The teacher and student devise a behavioral contract to minimize spelling mistakes. The student will stay for extra help, do dictation activities, crossword puzzles and use dictionary when necessary. Teacher should be available during free periods for guidance and assistance.

- Consequences

These should occur immediately after a behavior. They may be 'positive or negative, expected or unexpected, immediate or long-term, extrinsic or intrinsic, material or symbolic. They occur after the "target" behavior occurs, when either positive or negative reinforcement may be given.

- Positive-reinforcement

This type of reinforcement occurs in the form of a stimulus that increases the probability of a given response in the classroom. Teachers may provide positive reinforcement by:

- Smiling at students or saying "wow" after a correct response.
- Giving good marks.
- Praising students' ability in front of peers and to parents.

#### § Negative. Reinforcement

This type of reinforcement increases "the probability of a response that removes or prevents a hostile condition". Some language teachers mistakenly believe that negative reinforcement is a form of punishment aiming at suppressing a given behavior. In fact "negative reinforcement increases the likelihood of a behavior, as does positive reinforcement".

#### § Punishment

This behavior includes presenting a strong stimulus to decrease the frequency of a special response. The effectiveness of punishment appears in the quick elimination of undesirable behaviors. Examples of punishment include:

- Students who fight are immediately referred to the disciplinary committee.
- Late assignments are given a very poor mark.

#### § Extinction

It aims at decreasing the probability of a response by withdrawing a previously reinforced stimulus. Examples:

A student has developed the habit of saying the punctuation marks when reading aloud. Classmates reinforce the behavior by laughing when he does so. The teacher tells the students not to laugh, thus extinguishing the behavior.

Students often forget to do their grammar homework, and the teacher does nothing to change this situation, contrary to school policy. The rule is later on enforced, and the students never forget to do their grammar homework.

Note: Punishment in our mind can never decrease a given undesired behavior. It says to the student “you have made a mistake” but does not give a remedy or solution.

Evaluation: How is this theory related to Multiple Intelligences theory?

- Ø Changing a student's negative behavior into a positive one = interpersonal intelligence.
- Ø Minimizing spelling mistakes / dictation/CAH = linguistic intelligence.
- Ø conditioned-reflex experiments /crossword puzzles = mathematical/logical intelligence
- Ø repetition and drills = musical intelligence
- Ø intrinsic and extrinsic consequences = interpersonal and intrapersonal intelligence.
- Ø Praising students' ability in front of peers and to parents = interpersonal and intrapersonal intelligence.

## 2.2 Foreign Language Learning and the Cognitive Theory

According to this theory, second language acquisition is seen as the build up of knowledge systems, which eventually calls on automaticity for speaking and understanding. Firstly, learners are to pay attention to what they try to understand or produce. Then, through experience and practice, they become able to use some parts of their knowledge quickly and automatically.

Recently, investigations included a phenomenon labeled 'restructuring'. This explains that things we know and use automatically are based on the interaction of knowledge which fits into an existing system and which may restructure this system. Restructuring may lead to sudden bursts of progress for the learner.

This theory sees second or foreign language acquisition /learning (we use the two terms acquisition and learning interchangeably) as "a conscious and reasoned thinking process which involves a deliberate use of learning strategies". This view considers the learner as 'information-processor', with boundaries or limitations as to how much new information can be assimilated and retained, and who needs strategies to be able to transfer information into memory. We mean by learning strategies "the special ways of processing information that enhance comprehension, learning or retention of information". They constitute one type of learning strategy that students and pupils alike, use in order to learn more successfully. These include the following: repetition, organizing new language, summarizing meaning, guessing meaning from context, using imagery for memorization, association, mnemonics, using clues while skimming or scanning in reading comprehension, underlining key words, self-testing and monitoring. Relevant classroom activities might include review and revision, class vocabulary bags, (a scaffolding approach is to be used with young learners), analysis and discussion of the new language and topics, and use of inductive approaches. It is worth mentioning that such strategies do involve deliberate manipulation of language to improve learning. Here, we have to pay attention at and distinguish between metacognitive strategies which are concerned with organizing learning, and social/ affective strategies which thanks to them interaction can take place.



Teachers are strongly advised to cater for their students' cognitive styles before planning and while presenting a lesson. These styles which refer to 'the way a person thinks and processes information' may include 'field dependence - independence, convergent-divergent, and many others.. As an example, in the field dependence, the field dependent learner is one who processes information globally. This learner is less analytical, not attentive to detail, and sees the perceptual field as a whole. The field independent person on the other hand can easily break the field down into its component parts, he is analytical. Convergers tend to be more active – by doing something, but Divergers tend to be more reflective by watching.

Equipping the learners with the necessary tools to know their cognitive styles, enables them to understand how they prefer to think and then how they can optimize their school work. Concerning the teaching approach which might accommodate this view, scientists thought of implementing the so called 'cognitive-code approach'. This approach which belongs to the 1970s asserted that language learning involved as mentioned in our definitions, an active mental process, as opposed to the Behaviorists' process of habit formation.

A language lesson used to focus on learning grammatical structures but the cognitive code approach emphasized the importance of practising the structures in a meaningful context. These structures were presented inductively, i.e. the rules came after exposure to examples. Unfortunately during that period, there was little use of examples from authentic material. The approach included the clear and structured use of concept questions to help learners identify the limits of use of structure and lexis. A 'PPP' methodology, (Presentation, Practice and Production) was omnipresent in class. It was thought that thanks to it students could gain a clear understanding of a grammatical rule before practising it in meaningful contexts,

### Example

the learners will be able to understand the new grammar 'rule of the day', which is that the past form of regular verbs is made using -ed. The teacher starts her/his lesson with eliciting a dialogue that includes clear examples of the structure. The learners practise it, and the teacher uses it to elicit the rules.

However, scientists today, warn teachers of what we call 'cognitive overload'. This term refers to the situation where a teacher gives too much information or too many activities to the learner. This would result in the student being unable to process information. The language processing of such too many activities would go beyond the processing limits of the learner as a human being. It would hinder learning since it would be a source of anxiety and stress.

Evaluation: How is this theory related to Multiple Intelligences theory?

- Ø Teachers are strongly advised to cater for their students' cognitive styles before planning and while presenting a lesson = interpersonal intelligence.
- Ø such strategies do involve deliberate manipulation of language to improve learning. = linguistic intelligence.
- Ø a conscious and reasoned thinking process which involves a deliberate use of learning strategies = mathematical/logical intelligence
- Ø distinguish between metacognitive strategies which are concerned with organizing learning, and social/ affective strategies which thanks = interpersonal and intrapersonal intelligence.
- Ø It would hinder learning since it would be a source of anxiety and stress = interpersonal and intrapersonal intelligence.

### 2.3 Foreign Language Learning and the Creative Construction View

In this theory, also known as the Creative Construction Hypothesis, learners are thought to construct internal representations of the language being learnt. It is in some respects similar to Chomsky's innatist theory for second language learning. Internal representations are thought to develop towards the full second language system. What distinguishes this theory are its claims that internal processing strategies operate on language input without the learner's production of the language. In other terms, to acquire a foreign language, the learners need not actually speak or write. As learners read or hear samples of the target language, acquisition occurs internally. Thus, the learner's written or spoken productions are seen as an outcome rather than as the cause of the learning process. Creative construction theory was molded by Stephen Krashen and has had the most influence on second language teaching practice. In this respect, Krashen (1982), proposed five central hypotheses:

#### 2.3.1 The Acquisition Learning Hypothesis

In this hypothesis it is suggested that there are two ways for adult second language learners to approach learning: They may learn or acquire a second language. We acquire a language when we engage in meaningful interaction in the target language with no attention to form. We learn a language, on the other hand, through a conscious process of attention to form and error correction in a formal language classroom. For Krashen, acquisition is the more important process since it allows for natural and fluent communication. It is the real road to mastery of any foreign language.

### 2.3.2 The Monitor Hypothesis

According to Krashen, monitor use requires three conditions: sufficient time, focus on form, and knowing the rules. He argues that knowing the rules enables the speaker to polish what he has acquired via real communication. This hypothesis asserts that a student's learned system acts as a monitor to what he is writing or speaking. The learned system check what is being produced, verbally or non verbally. As an example, before a student produces an utterance, he or she internally scans it for errors. The scanner, the learned system, makes the necessary corrections.

### 2.3.3 The Natural Order Hypothesis

This hypothesis claims that the acquisition of a language rules is predictable: some rules are acquired before others. Krashen asserts that the rules which are easiest to state and easy to learn are not necessary the first to be acquired. suggests that the acquisition of grammatical rules follows a natural predictable order. This order is independent of the learner's mother tongue, age, and setting. For example, "in English language, the learner acquires the progressive -ing, plural -s, and active voice before he or she acquires third person -s, or passive voice". (Richards. Platt, & H. Platt, 1992). One may refer to his mother tongue and listen to the children's utterances .He will discover by himself how the child acquires language.

### 2.3.4 The Input Hypothesis

According to this hypothesis, language acquisition occurs while receiving comprehensive input or by understanding messages. Comprehension and acquisition will take place only if the content and structure of the input are beyond the current level of competence of the learner.

### 2.3.5 The Affective Filter Hypothesis

Krashen explains the affective filter as an imaginary barrier which hinders the use of the input available in the environment. The things which are generally affected include: motives, needs, attitudes and emotions. Input is often screened out and made unavailable for acquisition whenever a learner is angry, anxious or bored. When the learner is relaxed and motivated the affective filter will be down.

Robert Gagné (cited by Kevin Kruse.2000) provides a similar model, where the emphasis is put on the formal presentation of rules, and on the active involvement in rule-getting:

1. The student is provided with a model to follow - this may be through watching an expert or teacher perform, or through reading a text; listening to a tape or watching a video. The student himself is to construct hypotheses about how the skill is performed or accomplished.
2. The student actively tries to carry out the task, while helped by the teacher or expert - this is 'cued performance'. It gives the student the opportunity to verify and check the hypotheses that he has built. Thus we may explain to our students how the 'have -ing' form of the verb is used. They listen to our explanation/lesson presentation, and form their own ideas of when the form is or is not correct. They will then try them out to see if they work, through guided and later free practice.

In an article written by Kevin Kruse (2000), Robert Gagné created a nine-step process called the events of instruction, which correlate to the conditions of learning. These events are presented in the figure below with the instructional events in the left column and the associated mental processes in the right column.

Instructional Event	Internal Mental Process
1. Gain attention	Stimuli activates receptors
2. Inform learners of objectives	Creates level of expectation for learning
3. Stimulate recall of prior learning	Retrieval and activation of short-term memory
4. Present the content	Selective perception of content
5. Provide "learning guidance"	Semantic encoding for storage long-term memory
6. Elicit performance (practice)	Responds to questions to enhance encoding and verification
7. Provide feedback	Reinforcement and assessment of correct performance
8. Assess performance	Retrieval and reinforcement of content as final evaluation
9. Enhance retention and transfer to the job	Retrieval and generalization of learned skill to new situation

Table 6 Events of instruction

Evaluation: How is this theory related to Multiple Intelligences theory?

- Ø real communication = interpersonal intelligence.
- Ø the learner's written or spoken productions are seen as an out = linguistic intelligence
- Ø internal processing strategies = Mathematical intelligence
- Ø meaningful interaction in the target language with no attention to form = interpersonal and intrapersonal intelligence
- Ø the different hypotheses proposed by Krashen = intrapersonal and interpersonal intelligences

## 2.4 Interlanguage and Foreign Language Learning

Interlanguage, which is still referred to today in teaching fields, is a concept created by Selinker in 1972. It refers to the type of language produced by second or foreign- language learners who are in the process of learning a new language. But how did the interlanguage assumption develop?

Before the 1960's language was not thought to be a mental phenomenon. Like other forms of human and animal behavior, language was believed to be learnt by processes of habit formation. A child learns his mother tongue by imitating the sounds and patterns he hears around him. Adults reinforce the child's attempts and lead the efforts to the correct forms by approval or disapproval. Cognitive linguists exercised their influence and criticized this explanation of first language acquisition. Language cannot be verbal behavior only, since "children are able to produce an infinite number of utterances that have never heard before". This creativity is only possible because a child does not only parrot but develops a system of rules. Cognitive linguists have shown that children actually do construct their own rule system, and through gradual development this system will correspond to the system of the adults. The acquisition of grammatical rules passes through similar stages. According to cognitive linguists and first language acquisition research, second language learners are viewed as actively constructing rules from the data they encounter and little by little they gradually adapt these rules in the direction of the target language. However wrong and inappropriate learners' sentences may be in regard to the target language system, they are grammatical in their own terms, since they are a product of the learner's own language system. This system gradually develops towards the rule-system of the target language.

Interlanguage refers to the different shapes of the learner's language competence. The term asserts that the learners' language system is neither that of the mother tongue nor that of the second language. Rather, it contains elements of both. Therefore, we should not see errors as signs of failure only, but as evidence that the learner is developing a system. While behaviorism adhered to the teaching methods which use drills and consider errors as signs of failure, interlanguage liberated language teaching and opened the gates to communicative teaching methods. Errors are no longer seen as signs of failure but reflect the students' temporary language system. Therefore they form a natural part of the learning process. Teachers are free now to use teaching activities which do not call for constant supervision of the student's language. What matters most is the message. The place of the accuracy fault-finder has disappeared. Group work and pair work, instead of mechanical drills, have become suitable means for language learning.

In language learning, errors are something natural and unavoidable. According to Richards, Jack C et al. (1992:186) these errors are caused by a variety of processes which include:

1. borrowing patterns from the mother tongue
2. extending patterns from the target language
3. Expressing meanings using the words and grammar which are already know.

Interlanguage falls between the native language and the target language. It is neither the system of L1 nor the system of the L2. Through trial and error and hypothesis testing, learners succeed in establishing closer approximation to the system used by native speakers of the language.



According to Selinker (1972), we should think of the learner not as someone who fails to speak the language he is learning, but as someone who successfully speaks the interlanguage that he has constructed. What we perceive as errors is evidence of the fact that the foreign language learner is not using the same grammar as the native speaker. The question for the teacher then becomes one of knowing how to move the learner from one grammar to another.

Intralinguage processes, due to their complexity, are going to be a source of considerable dangers that await the learner. The most important of these is fossilization. Selinker points out that most of the adult learners never achieve full fluency in L2. They are bound to fossilize at some point or other. Before tackling this concept we feel it is worth defining it to avoid any misunderstanding. Fossilization of a linguistic form, feature, or rule is said to be fossilized when "it becomes permanently established in the interlanguage of a second-language learner in a form that is deviant from the target-language norm and that continues to appear in performance regardless of further exposure to the target language". It may be induced by:

1-teaching/learning methods: when we force a student to produce forms that are beyond his present Intralanguage (IL), then these may fossilize, and prevent the learner from making any further progress or doing better.

2-economic judgement: the learner may very well fossilize if he decides that any added efforts to bring about increases in mastery of the teaching point, are not worthwhile.

Selinker suggests that the learner constructs his IL through the employment of a series of learning strategies. These are defined "behaviours and thoughts that a

learner engages in during learning" which are "intended to influence the learner's encoding process" Weinstein and Mayer (1986: 315).

In our context, they include:

§ Transfer - the use of the L1 to construct a model of the L2. While this was once believed to be mainly negative in its consequences, there is now agreement that the adult learner may use the L1 positively, and that some comparison of the two languages is useful in language learning. It is no longer considered realistic to insist that the learner should have no recourse whatsoever to the L1.

§ Overgeneralization - the learner applies the rules of the L2 to situations in which they are not used by native speakers. (In fact, the strategy itself should be referred to as 'generalization', which is a fundamental way of acquiring or constructing knowledge. It is only when the process leads to erroneous conceptualizations that one can properly use the term 'overgeneralization'.

§ Simplification - the learner often begins by utilising a simple subset of language rules. However, this is not so much a simplification of the TL - one cannot simplify what one does not know - but a retreat to a simplified grammar very similar to the basic rules of many pidgins. Some linguists believe that this is in fact a set of rules given by the Universal Grammar.

This view leads us to reconsider the question of what it means to make an error when speaking a foreign language. As we have seen, some errors may occur as a result of transfer - interference - while some errors may result from the other two processes. On the whole, we can deduce that the making of errors is a natural part of the learning process, and it should not be taken as evidence of perversity on the part of

the learner or acquirer. We should also note the existence of a strategy used by the learner to avoid errors. This strategy referred to as 'avoidance errors', occurs when the learner avoids a given structural form or set of lexical items, because he or she doubts his/her capacity to use them correctly.

We have tried to clarify what the concept of interlanguage and of fossilization convey. We have also explained that language learning proceeds through a series of intermediary languages, with elements being at times in competition with each other. Through a process of elimination and elaboration, the learner progresses, testing his or her hypotheses about the L2 in a variety of ways. The great danger lies in fossilization - and it appears sometimes that all learners reach a stage at which they fossilize unless there is a radical change in aspects of their environment related to SLA. We may derive from these propositions the idea that mistakes on the part of the learner are a necessary part of the learning process, but that they should be surveyed by the teacher for signs of fossilization.

Evaluation: How is this theory related to Multiple Intelligences theory?

- Ø strategy used by the learner to avoid errors.= intrapersonal intelligence.
- Ø opened the gates to communication= linguistic intelligence.
- Ø someone who successfully speaks the interlanguage that he has constructed = interpersonal , intrapersonal and linguistic intelligences

## 2.5 Universal Grammar

Noam Chomsky is one of the best known and influential linguists of the second half of the Twentieth Century. He has made a number of strong claims about language: he suggests that language is an innate faculty - that is to say, humans are born with a set of rules about language in their heads which he refers to as the 'Universal Grammar'. The so called universal grammar is the basis upon which all human languages are built. If an extra terrestrial, as an example, were to visit our planet Earth, he would deduce from the evidence that there was only one language, with a number of local variants. Chomsky gives a number of reasons why this should be so. Among the most important of these reasons is the ease with which children acquire their mother tongue. He claims that it would be little short of a miracle if children learnt their language in the same way that they learn mathematics. This, he says, is because:

1-Children are exposed to very little correctly formed language. When people speak, they constantly interrupt themselves, change their minds, make slips of the tongue and so on. Yet children manage to learn their language all the same. This claim is usually referred to as the Argument from Poverty of the Stimulus.

2- Children do not simply copy the language that they hear around them. They deduce rules from it, which they can then use to produce sentences that they have never heard before. They do not learn a repertoire of phrases and sayings, as the behaviorists believe, but a grammar that generates infinity of new sentences.

Hence, children are born, with the Universal Grammar wired into their brains. When a child begins to listen to his mother or father, he /she will unconsciously recognize

which kind of a language he is dealing with - and he or she will set his grammar to the correct one - this is known as 'setting the parameters'.

It is as if the child were offered at birth a certain number of hypotheses, which he or she then matches with what is spoken or happening around him. This child knows intuitively that there are some words that behave like verbs and others like nouns, and that there is a limited set of possibilities as to their ordering or use within a given phrase. This is not information that he is taught directly by the adults that surround him, but information that is given and assimilated unconsciously. This set of language learning tools, provided at birth, is labeled the Language Acquisition Device. (Notice here, Chomsky uses the term "acquisition" rather than learning, above, we used the two terms interchangeably).

In the 1950s, Noam Chomsky and his followers challenged previous assumptions about language structure and language learning. They asserted that language is creative (not memorized), and rule governed (not based on habit), and that universal phenomena of the human mind underlie all language. Such "Chomskian revolution" initially gave rise to an eclectic approach to teaching. Unfortunately, teachers around the world, Algeria is of course concerned, adhered to eclecticism believing it is the 'salvation' approach. But the poor learning situation did not change at all. In our context, Algerian teachers, because of lack of adequate training, used to teach the way they were taught and believed they were using the eclectic approach, something which was totally different.

In the West, Chomsky's claims have led to two main branches of teaching approaches: the humanistic approaches and content-based communicative approaches, which try to incorporate the need for active learner participation, about

appropriate language input, and about true communication as a human activity. Most recently, there has been also a significant shift toward greater attention to reading and writing as a complement of listening and speaking (as emphasized by the Competency Based Approach used nowadays in Algeria). It is based on a new awareness of significant differences between spoken and written languages, and on the notion that learning a language involves an interaction between the text on the one hand, and the culturally-based world knowledge and experientially-based learning of the learner/ receiver on the other. Developments in the teaching field are putting a great emphasis on 'individualized instruction', more humanistic approaches to language learning, a greater focus on the learner, and greater emphasis on development of communicative, as opposed to merely linguistic competence.

In addition to Chomsky's Generativism, the advances in cognitive science and educational psychology made by Jean Piaget and Lev Semenovich Vygotsky in the first half of the century strongly influenced language teaching theory in the 1960s and 70s. These new trends, favouring more humanistic views and putting a greater focus on the learner and on social interaction, gave way to the Natural (in the USA) and Communicative (in England) approaches. Psychologist Charles Curran's Community Language Learning (also called Counseling Language Learning) and Krashen's and Terrell's Natural Approach, in the 1980s, might be good examples of this latest trend in language teaching.

### Bruner's LASS

What held our attention while revising Chomsky's LAD is the very interesting Jerome Bruner's LASS (Language Acquisition Support System). Bruner asserts that while 'there very well may be, as Chomsky suggests, a Language Acquisition

Device, or LAD, there must also be a Language Acquisition Support System, or LASS'. Jerome Bruner is referring here to the family and entourage of the child.

If we watch closely the way a child interacts with the parents and adults around her, we will see that they constantly provide opportunities for her to acquire her mother - tongue. Mother or father provide ritualized scenarios - the ceremony of eating a meal, having a bath, getting dressed, or playing a game - in which the phases of interaction are rapidly recognized and predicted by the infant. It is within such clear and emotionally exciting contexts that the child first understands the way in which language is used. The utterances of the mother or father are themselves ritualized, and accompany the activity in predictable and comprehensible ways. Gradually, the child moves from a passive situation to an active one, taking over the movements of the caretaker, and, eventually, the language as well. We might cite here as an example the three- year- old Abdurrahman – if it is not a technological trick -who recited the Koran (Algerian TV – October 21st, 2009) though he was not taught to memorize it before.

Bruner cites the example of a well-known childhood game, in which the mother, or other caretaker, disappears and then reappears. Through this ritual, which at first may be accompanied by simple noises or 'Bye-bye Hello', and later by lengthier commentaries, the child is both learning about separation and return and being offered a context within which language, charged with emotive content, may be acquired.

Bruner's conception of the way children learn language is taken a little further by John Macnamara quoted by Timothy Mason in Timothy Mason's Site (2007), who believes that children, instead of having 'an in-built language device', they have an

innate ability to grasp meaning into social situations. It is this capacity that makes them capable of understanding language, and therefore learning or acquiring it with ease, rather than Chomsky's LAD.

We can deduce that Chomsky believes the child is autonomous in the creation of language because he is programmed to learn. In the point of view of Bruner, the program is indeed in place, but the social conditions become more important. The child is still an active participant, is still essentially creative in his approach to language acquisition, but the role of the parents and those around him is also primordial.

How about the language teacher? What role did she/he play - is he playing now? We believe the various methods did and still impose the role a teacher should play when in class. We might get a synoptic view of the teacher's roles within various methods by looking at the following chart taken from Online Resources: Digests September 2001- Issue Paper.

TEACHING METHODS AND TEACHER & LEARNER ROLES		
Method	Teacher Roles	Learner Roles
Situational Language Teaching	Context Setter	Imitator
	Error Corrector	Memorizer
Audio-lingualism	Language Modeler	Pattern Practicer
	Drill Leader	Accuracy Enthusiast
Communicative Language	Needs Analyst	Improviser
Teaching	Task Designer	Negotiator



Total Physical Response	Commander	Order Taker
	Action Monitor	Performer
Community Language Learning	Counselor	Collaborator
	Paraphraser	Whole Person
The Natural Approach	Actor	Guesser
	Props User	Immerser
Suggestopedia	Auto-hypnotist	Relaxer
	Authority Figure	True-Believer

Table 7 Methods and Teacher and Learner Roles

As suggested in the figure, some schools of methodology see the teacher as ideal language model and commander of classroom activity (e.g., Audio-Lingual Method, Natural Approach, Suggestopedia, Total Physical Response) whereas others see the teacher as background facilitator and classroom colleague to the learners or co-learner (e.g., Communicative Language Teaching, Cooperative Language Learning). There are other global issues to which spokespersons for the various methods and approaches respond in alternative ways. For example, should second language learning by adults be modeled on first language learning by children? One set of schools (e.g., Total Physical Response, Natural Approach) notes that first language acquisition is the only universally successful model of language learning we have, and that second language pedagogy must necessarily model itself on first language acquisition. An opposed view (e.g., Silent Way, Suggestopedia) observes that adults have different brains, interests, timing constraints, and learning environments than do children, and that adult classroom learning therefore has to be fashioned in a way

quite dissimilar to the way in which nature fashions how first languages are learned or acquired by children.

Another key distinction turns on the role of perception versus production in early stages of language learning. One school of thought proposes that learners should begin to communicate, to use a new language actively, on first contact (e.g., Audio-Lingual Method, Silent Way, and Community Language Learning), while the other school of thought asserts that an initial and prolonged period of reception which include the listening and reading skills, should precede any attempts at production (e.g., Natural Approach).

Evaluation: How is this theory related to Multiple Intelligences theory?

- Ø Children deduce rules they can use to produce sentences= intrapersonal interpersonal/linguistic/mathematical intelligences
- Ø A grammar that generates infinity of new sentences = linguistic intelligence.
- Ø humans are born with a set of rules about language in their heads = mathematical/logical intelligence
- Ø setting the parameters = interpersonal and intrapersonal intelligence

## 2.6 The Acculturation Model

Researchers today, claim that culture plays an important role in learning or acquiring a foreign language. The Acculturation Model is the most used tool to deal with the interrelation between language learning and the target language culture. This model of second language acquisition was created by John Schumann in 1978 and is still widely used nowadays. Acculturation can be defined as the integration of a second language learner with a target language community/culture. Schumann

explains the correlation between acculturation and second language acquisition as follows:

Second language acquisition is just one aspect of acculturation and the degree to which a learner acculturates to the target language group will control the degree to which he acquires the second language

(Schumann 1978, cited in Ellis 1985:251).

The understanding of the cultural and linguistic similarities and differences between the first and second languages is essential to the understanding of how students learn about the new culture and how they interpret, acquire and produce English. The relationship between language and culture is important in determining the degree of acculturation. Schumann (1978) describes acculturation as the social and psychological integration of second language learners with the target language (TL) group. Within his acculturation model, Schumann points out that social adaptation is an integration strategy which involves second language learners' adjustment to the lifestyles and values of the target language group while maintaining their own lifestyle and values for intergroup use.

Acculturations, and accordingly second language acquisition, are affected by social and psychological distances, which decide upon the quantity and quality of a contact with a target language community to which a learner is exposed. Social distance describes the distance between different groups of society. The notion includes all differences such as social class, race/ethnicity or sexuality, but also the fact that the different groups do not mix. Social distance is the result of a number of factors which affect the learner as a member of a social group in contact with the

target language group. Psychological distance is the result of various affective factors which concern the learner as an individual (Ellis 1985:252).

The social variables determine what the good and bad conditions for learning situations are. Seven distinguished variables are suggested (Ellis 1985):

1. Political, economical, cultural equality of a target language and L2 group. If one group is dominant over the other, then the optimal second language acquisition will not occur. If two groups are approximately equal, then the contact between the groups' members is greater, and the second language acquisition is encouraged.
2. Assimilation, preservation, and adaptation. The preferable condition for second language acquisition is when an L2 group wants to assimilate with the target language group, and adapt to its culture. However, the second language acquisition will not be obtained when the L2 group desires to remain linguistically and culturally unbounded with the target language group.
3. Enclosure. The more social institutions the target language group and L2 group have in common, the better conditions for second language acquisition.
4. Cohesiveness and size. The L2 group should not be too large in size, neither should it be cohesive, in order to provide a good contact between the members of the group, and hence, supply optimal conditions for second language acquisition.
5. Congruence. The bigger correspondence between the cultures of the two groups, the better conditions for second language acquisition.
6. Attitude. Both groups need to have positive attitudes towards one another for the conditions for second language acquisition to be favorable.

7. Intended length of residence. When the L2 group members wish to stay in the target language environment for an extended period of time, the acquisition process and motivation to learn will be more likely to occur.

The psychological variables deciding upon optimal second language acquisition and learning situations are as follows (Ellis 1985:252):

1. Language shock. It is characterized by the feelings a learner experiences while using the second language, for example, the feelings of confusion, and doubt.
2. Culture shock. Feelings of an L2 learner caused by the differences between the learner's culture and the target language culture, i.e. stress, disorientation, and fear.
3. Motivation. A factor describing an L2 learner's desire to learn a target language. This motivation might be intrinsic or extrinsic.
4. Ego boundaries. A degree to which an L2 learner is ready to accept new identity resulting from the membership in a target language community.

Schumann, in his theory, also indicates that early second language acquisition has some characteristics in common with the formation of pidgin languages, in that a learner's language becomes pidginized when he fails to get through early stages of acquisition due to social and/or psychological distances: "pidginization may characterize all early second language acquisition and (...) under conditions of social and psychological distance it persists" (Schumann 1978:110, cited in Ellis 1985:253). When it persists, a learner fossilizes, and consequently, he will be restricted to the use of only one out of three functions of language, the communicative one. The other function, integrative one, used by a speaker to show

integrity with a particular social group, can be gained by both native speakers and L2 learners who do not fossilize in early stages. The last function of a language distinguished by Schumann, the expressive function, will never be fully mastered by either native speakers or L2 learners (Ellis 1985).

We may deduce that the more one acculturates the more efficient in the target language he becomes. Schumann confirms this when he said that 'second language learners will acquire the TL to the degree they acculturate to the host society'.

In Algeria the situation is not of bicultural and bilingual nature. It is much more. For some students English is the third foreign language: Tamazight- Arabic- French and English. Is not there an acculturation overload? How can support them as they adapt to the mainstream culture and learn English? How can we make their acculturation to English a successful one? Our educational system often focuses on the process of second language acquisition, ignoring how students' first language and culture may influence the way they understand, interpret and produce English. For meaningful and successful communication, our students need to be aware of the subtle and obvious differences between their first and second , and may be a third and a fourth culture.

The importance of interpreting speech styles and speech acts appropriately to communicate effectively is a critical component in second language teaching and learning. This interpretation can be difficult because of differences between the student's native language and English. As educators, we need to appreciate not only our students' native culture and language, but also how and why their background might influence their second language interpretation, acquisition and production. Educators need to consider the social and affective aspects of learning a second

language. As a result, a new and better way for students to relate to second language learning may be provided.

Evaluation: How is this theory related to Multiple Intelligences theory?

- Ø Social adaptation= intrapersonal intelligence/interpersonal intelligence
- Ø Motivation to learn language = linguistic / intrapersonal intelligence
- Ø Acculturation = musical intelligence
- Ø Ego boundaries = interpersonal and intrapersonal intelligence.
- Ø integration of a second language learner with a target language community/culture = interpersonal , intrapersonal and linguistic intelligences

Before shifting to our own evaluation, we suggest the following summary of English Language Teaching History written by Brown, H. D. (2000) which offers the reader a synopsis of languages learning/teaching:

### The Classical Method

Back in the 17th, 18th and 19th centuries, foreign language learning was associated with the learning of Latin and Greek, both supposed to be the main source of intellectuality and erudition. At the time, focus was on grammatical rules, syntactic structures, along with rote memorization of vocabulary and translation of literary texts. Provision for the oral use of the languages under study was totally absent. Late in the nineteenth century, this method came to be known as the Grammar Translation Method. It requires learners to read and translate whole texts word for word and memorize numerous grammatical rules and exceptions as well as enormous vocabulary lists.

It is widely recognized that the Grammar Translation Method is still one of the most popular and favorite models of language teaching, which has been rather stalwart and impervious to educational reforms. We can find it mainly in French speaking countries and in the Middle East. With hindsight, we could say that its contribution to language learning has been lamentably restricted, since it has shifted the focus from the real and authentic language to a "dissected body" of nouns, adjectives, and prepositions. Nothing is done to enhance a student's communicative ability in the foreign language.

#### Gouin and Berlitz - The Direct Method

Gouin started building a methodology around observation of child language learning. It all began when he discovered that his three-year-old nephew had managed to become a "chatterbox" of French - a fact that made him believe that children possess the secret to learning a language. Thus, he began observing his nephew and came to the conclusion that language learning is a matter of "transforming perceptions into conceptions and then using language to represent these conceptions". Equipped with this knowledge, he devised a teaching method premised upon these insights. It was against this background that the Series Method saw light, which taught learners directly a "series" of connected sentences that are easy to understand. For instance,

I stretch out my arm. I take hold of the handle. I turn the handle. I open the door. I pull the door.

A: Good morning. How are you? B. Fine thanks and you? (Algerian Beginners textbooks)



Nevertheless, this approach to language learning was short-lived and, gave place to the Direct Method, posited by Charles Berlitz. The basic tenet of Berlitz's method was that second language learning is similar to first language learning. In this light, there should be lots of oral interaction, spontaneous use of the language, no translation, and little if any analysis of grammatical rules and syntactic structures. In short, the principles of the Direct Method were as follows:

1. Classroom instruction was conducted exclusively in the target language.
2. Only everyday vocabulary and sentences were taught.
3. Oral communication skills were built up in a carefully graded progression organized around question-and-answer exchanges between teachers and students in small, intensive classes.
4. Grammar was taught inductively.
5. New teaching points were introduced orally.
6. Concrete vocabulary was taught through demonstration, objects, and pictures; abstract vocabulary was taught by association of ideas.
7. Both speech and listening comprehension were taught.
8. Correct pronunciation and grammar were emphasized.

The Direct Method enjoyed great popularity at the end of the nineteenth century and the beginning of the twentieth but it was difficult to implement, mainly because of budget, time, and classroom size problems. Yet, after a period of decline, this method has been revived, leading to the emergence of the Audio-lingual Method.

## The Audio-lingual Method

The outbreak of World War II heightened the need for Americans to become orally proficient in the languages of their allies and enemies alike. To this end, bits and pieces of the Direct Method were appropriated in order to form and support this new method, the "Army Method," which came to be known in the 1950s as the Audio-lingual Method.

The Audio-lingual Method was based on linguistic and psychological theory and one of its main premises was the scientific descriptive analysis of a wide assortment of languages. On the other hand, conditioning and habit-formation models of learning put forward by behaviorist psychologists were integrated with the pattern practices of the Audio-lingual Method. The following points sum up the characteristics of the method:

- Dependence on mimicry and memorization of set phrases
- Teaching structural patterns by means of repetitive drills. No grammatical explanation is allowed.
- Learning vocabulary in context
- Use of tapes and visual aids /realia
- Focus on pronunciation
- Immediate reinforcement of correct responses

Drills and pattern practice are typical of the Audiolingual method. These include

Repetition. The student is to repeat an utterance as soon as he hears it.

Inflection. Teacher: I ate the apple. Student: I ate the apples

Replacement Teacher: He bought the car for half-price. Student: He bought it for

half-price.

Restatement     Teacher: Tell me not to be late. Student: Don't be late!

The popularity of this approach waned after 1964, because of its shortcomings. It fell short of promoting true communicative ability since it gave undue attention to memorization and drilling, while ignoring the role of context and world knowledge in language learning. After all, it was proved that language was not acquired through a process of habit formation.

### Suggestopedia

Suggestopedia promised great results if we use our brain power and inner capacities. Lozanov (1979) believed that we are capable of learning much more than we think. Drawing upon Soviet psychological research on yoga and extrasensory perception, he came up with a method for learning that used relaxation as a means of retaining new knowledge and material. It stands to reason that music played a pivotal role in his method. Lozanov tried to present vocabulary, readings, role-plays and drama with classical music in the background and students sitting in comfortable seats. In this way, students became "suggestible."

Of course, suggestopedia offered valuable insights into the "super learning" powers of our brain but it was demolished on several fronts. For instance, what happens if our classrooms are bereft of such amenities as comfortable seats, tape recorders or Compact Disk players? We should remember it is the case of most developing countries. Certainly, this method is insightful and constructive and can be practised from time to time, without necessarily having to adhere to all its premises. A relaxed

mind is an open, ready to broaden mind and it can help a student to feel more confident and, in a sense, pliable.

### The Silent Way

The Silent Way rested on cognitive rather than affective arguments, and was characterized by a problem-solving approach to learning. Gattegno (1972) held that it is in learners' best interests to develop independence and autonomy and cooperate with each other in solving language problems. The teacher is supposed to be silent - hence the name of the method - and must disabuse himself of the tendency to explain everything to them. Spoonfeeding must have no place in the class.

The Silent Way like all theories received an onslaught of criticism. More specifically, it was considered very harsh, as the teacher was distant and, in general lines, the classroom environment was not conducive to true learning.

### Strategies-based instruction

The work of O'Malley and Chamot (1990), and others before and after them, emphasized the importance of style awareness and strategy development in ensuring mastery of a foreign language. In this vein, many textbooks and entire syllabi offered guidelines on constructing strategy-building activities. Below there is an example of a list of the "Ten Commandments" for good language learning (taken from Brown, H. D. (2000: 137) :

	Teacher's Version	Learner's Version
1	Lower inhibitions	Fear not!
2	Encourage risk-taking	Dive in
3	Build self-confidence	Believe in yourself
4	Develop intrinsic motivation	Seize the day
5	Engage in cooperative learning	Love thy neighbour
6	Use right-brain processes	Get the BIG picture
7	Promote ambiguity tolerance	Cope with the chaos
8	Practice intuition	Go with your hunches
9	Process error feedback	Make mistakes work FOR you
10	Set personal goals	Set your own goals

Table 8 Ten Commandments for Language Learning

These suggestions are able to sensitize learners to the importance of attaining autonomy, which is taking charge of their own learning, and not expecting the teacher to deliver everything to them.

### Communicative Language Teaching

The need for communication has been relentless. It has led to the emergence of the Communicative Language Teaching. At this juncture, we should say that Communicative Language Teaching is not a method; it is an approach, which transcends the boundaries of methods and techniques. It is an approach to the teaching of second and foreign languages that emphasizes information gap and interaction as both the means and the goal of learning a language. It is also referred to as the “communicative approach”. Thanks to it teachers are now better equipped

with the necessary means to teach communication through authentic communication, not merely theorizing about it.

Let us see the basic premises of this approach:

- Focus on all of the components of communicative competence, not only grammatical or linguistic competence. Engaging learners in the pragmatic, notional/functional use of language for meaningful purposes
- Viewing fluency and accuracy as complementary principles underpinning communicative techniques
- Using the language in unrehearsed contexts
- Stimulates 'real life' communication.
- The focus is not upon the four skills but upon using language to communicate and to learn

This approach was once criticized because it was thought to be a ferocious enemy to grammar teaching. It was Wilga Rivers who clarified the concept with her famous quote : "thinking of the communicative approach without grammar is thinking of a hen without a skeleton".

As an attempt to enrich the above information, we have thought of including new original suggestions under the subtitle:

### A Weatherall Approach to Foreign Language Teaching

Most of the learners around the world have been driven for years and years. They have been spoon-fed like babies and have been parroting just what scholars

said. The quote "spoon feeding in the long run teaches the baby but the shape of the spoon" does perfectly apply in this situation.

If we carefully study the various language approaches that have been used during the 20th century and today, we will discover that each approach claims to be paramount and denies the validity of all that preceded. Who is right and who is wrong? Which approach should learners adhere to? Which methodology should we apply? Which "which" should we follow?

### What Does Psychology Say?

"The Grammar Translation Method appealed to the so called faculty psychology in its emphasis on training the mind; the audio-lingual method incorporated some of the views of behaviouristic learning theory, notably the concept of habit and the law of effect; the cognitive code tapped the potentially rich areas of problem solving..." Steven H. McDonough (1986.)

From the above quotation we deduce that all the approaches are valid and they complete one another. Doubtlessly some of their principles need to be neglected because though efficient at a given period, they might not fit our present space and time.

Whatever appears to be new today is but a new version of the past with a "new face" with a new celebrity name. To put an end to this "cheating" we would suggest the "ECPT Approach" which does not deny the validity of "all that preceded". It focuses on the teacher's flexibility, autonomy, imagination and creativity. The ECPT stands for:

- E : Ending  
C: Classroom  
P: Prescribed  
T: Teaching  
A: Approaches

It recommends:

a-Before facing the class, a teacher must be provided with as much information as possible about education findings of those who study language scientifically: linguists, psychologists, sociolinguists, neurologists etc.

b-When well trained, this teacher should be the only person to decide what method/technique to use when in class. His role would not be limited to presenting lessons. He would be responsible for what Pit Corder calls "the language teaching operation": understanding students, planning lessons outside school, presenting lessons according to his students' level and styles, guiding evaluating, and improving. No one can deny the fact that a teacher in an African village knows his students and their preferred channels of learning better than the most efficient scholar in the world. He is the only one who knows what motivates his students, what demotivates them; what they like and what they dislike. He is part of his students and the students are part of him: Gazelles can never be led by a tiger!

Some teachers may have a choice towards modernity and believe that the best way to excel in teaching is to adhere to it. This might be true in very specific situations. But one has first to understand the meaning of 'modern'. Does this word in the USA carry the same meaning in Africa or Asia? A chalkboard might be an old



fashioned object in the USA but very 'modern' in some part of the world. Everything is relevant to a situation, time and space and all that glitters is not gold.

It is worth reminding the teachers that approaches to teaching should be characterized by motivation on one hand and transmissive and facilitative teaching orientations on the other. Conceiving teaching as transmissive requires the use of content-centered approaches. The facilitative teaching requires the use learning centered approaches. Both of them are a "must" for better teaching achievements.

To illustrate what we have said up to now, we suggest the following drawing along with relevant explanation:

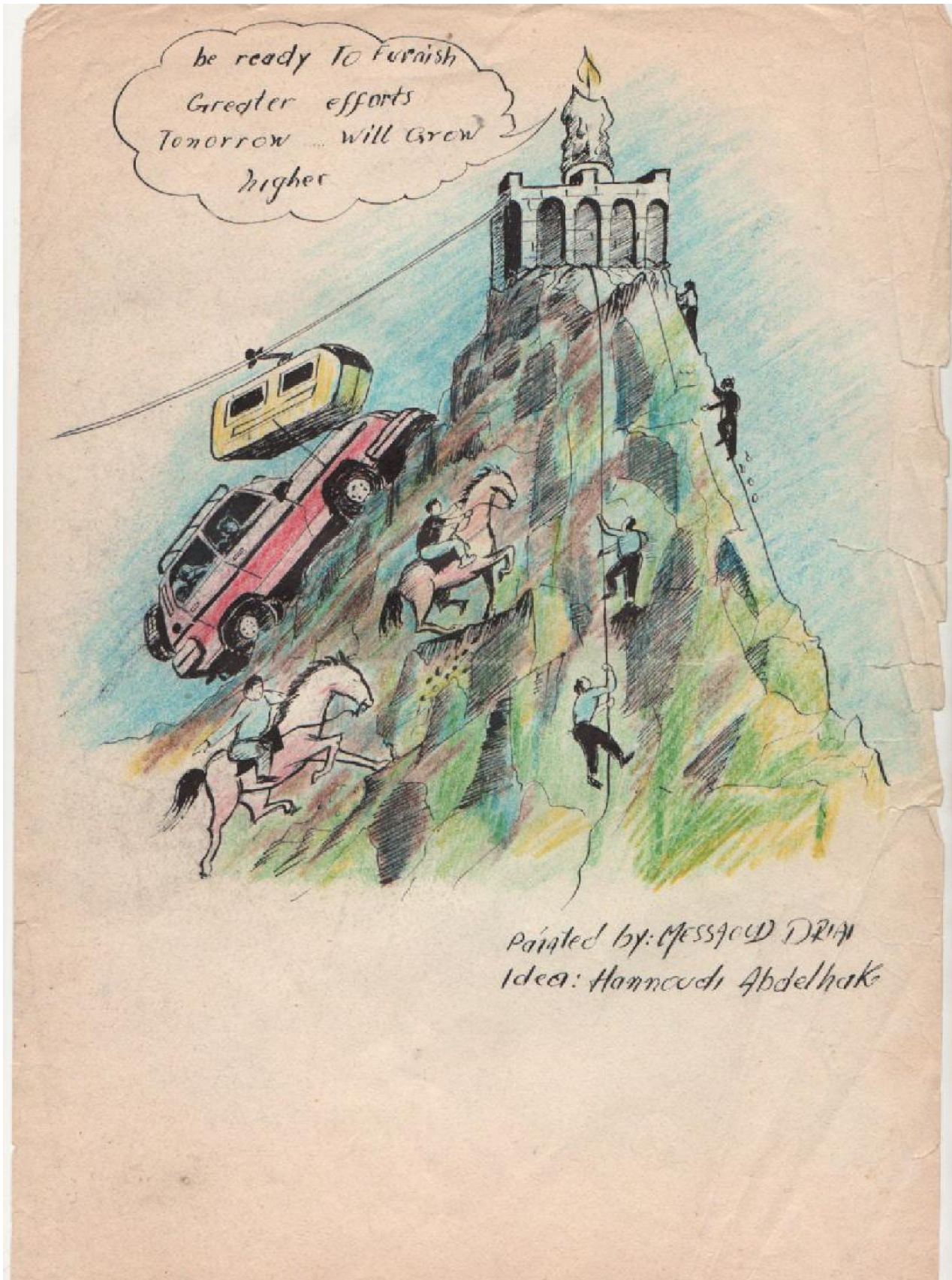


Figure 7 The ECPT Approach

To reach successfully the final objective, which is the candle, what is the best way to follow? We believe the regular teacher is the only one who can decide.

1-If his students are good mountain climbers, he will set them to cross the mountains and get the candle.

2-If they are good swimmers, he will set them to cross the river and get the candle.

3-If they are short sighted or blind, he will set them to follow the posts and get the candle.

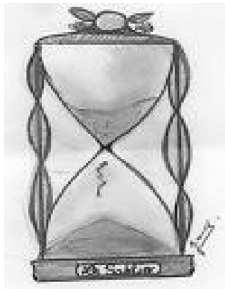
5-If they are equipped with cars, he will set them to use the road.

6-If they have got a helicopter (the case of some students in the USA), he will set them to fly and get the candle.

#### How Does ECPTA Regard Language Teaching Approaches?

The ECPTA believes that all approaches are parts that constitute a "one". This "one" is always growing and developing according to the development of space and time. To get the idea clearer we suggest the following examples:

## 1 The Hourglass



- 1- Glass + Sand = Structural Approach
- 2- The shape of the glass +sand= Audio-visual Approach
- 3- The moving of the sand = Functional Approach
- 4- The concept of time depicted by the movement of sand = communicative approach

## 2 Years later ... The Clock (a new approach to time and space)



- 1- Cogwheels + hands +springs+ metal = Structural Approach
- 2- Shape of the clock+ of numbers+ of hands = Audio-visual Approach
- 3- Functioning of cogwheels, springs, hands = Functional Approach
- 4- Time shown by hands and numbers = Communicative Approach

## 3 Nowadays : The Digital Clock



Each part of this clock represents one of the above mentioned approaches.

- Would it be possible to have an hourglass without sand and glass?
- Would it be possible to have a clock without cogwheels, springs and hands?

-Would it be possible to have a digital clock without a battery and electronic parts?

Doubtlessly in the future we shall get new clocks with new parts but the concept of time remains for ever the same. The same thing might be said about language teaching methods and approaches. But "Man" who is behind all this represents the human element which gives meaning and life to clocks and all language teaching approaches.

In addition to all the above information, teachers should bear in mind that the beginning of a successful operation relies much on a successful and efficient pupil's needs analysis. The quote which says: "The tragedy of education is played in two scenes - incompetent pupils facing competent teachers and incompetent teachers facing competent pupils." is an answer to those who neglect learners' needs analysis. When you know what your learners need, you will be prepared to respond appropriately when the unexpected crops up.

Conducting a needs analysis is a way in which educators can find out more about the needs of their pupils. It might be useful to devise a needs analysis questionnaire, before designing a teaching programme to make sure that their EFL lessons address the learners' particular needs and individual learning styles and multiple intelligences. A good needs analysis questionnaire is the best way of finding out about pupils' English language requirements and experience, their actual level of English and their true English needs. The needs analysis questionnaire should include questions which allow teachers to get to know more about pupils and their interests, so they can make lessons more personally directed and stimulating. A needs analysis questionnaire may include the following questions (the questions are not original but taken from various sources):



What experience do you have of learning English?

When do you use English?

Who do you communicate in English with?

Do you use English outside school?

Do you use or need English in these situations:

social situations

meetings and discussions

negotiations

telephone calls

report writing

e-mails

How advanced are you using English generally, on a scale of 1-5?

(1= beginner; 2= basic; 3= intermediate; 4= advanced; 5 = very advanced)

How confident are you using English in the following situations?

(The following functions appear in the Algerian secondary- school syllabus)

Introducing yourself

Ordering food in a restaurant

Asking for directions

Shopping

Making general conversation

Writing a postcard

writing different kinds of letters

using the telephone

Describing a place

Using numbers

Giving opinions

planning future activities

etc.

-What experience do you have of learning other languages?

-What are your main three reasons for learning English?

-What do you find most difficult when learning English? (E.g. speaking, writing, reading, listening, grammar, pronunciation)

Of course, the teacher is urged to include and select the questions which allow him to tailor his task according to the learners' needs. His work would be then, purposeful and interesting. It must give learners a boost up the ladder of knowledge. Furthermore, age and gender of the learners are to be taken into account because they do influence the teaching operation. Adequate teaching materials will empower their will. Teachers should remember that "the difference between a successful person and others is not a lack of strength, not a lack of knowledge, but rather a lack of will."

## CONCLUSION

Theories on learning language methodology are numerous. We must first of all conclude that when we learn something, some sort of change is to occur within us. Also, we should remember that learning occurs through life and though it often takes place in a social context, it is a highly individualized process; we all have different learning/cognitive styles.

One of the most recognized theories on learning a foreign language is called Behaviourism. It is based partly on the conditioned-reflex experiments (originated by Ivan Pavlov). In the language class, part of this theory in practice consists of providing a stimulus to cause a given response in a repetitive manner. American B.F. Skinner made much use of it to create a therapy of behaviour modification he labelled 'conditioning'. The 'famous' audio-lingual language learning approach which has been used and is still been used today in Algeria, came about as a result of this learning theory; it involved a lot of listen/repeat exercises, transformation drills, and positive reinforcement. Those traditional learning theories emphasized the role of reinforcement provided by environmental agencies. Language was viewed as a set of habits that are conditioned to stimuli in the environment. Hence, imitation and practice of new language form the process by which language behavior develops. Generalization of learning forms is enough to 'account for language novel uses'.

As a reaction to Skinner and Behaviorism, a new theory of language acquisition emerges and attributes to the child specific innate competencies which help him discover the rules of the language he is exposed to. Imitation, practice, reinforcement and generalization are no longer, (theoretically speaking because they are still being used today), productive conceptions of language acquisition.



Chomsky, the source of this controversy, asserts that all human beings are equipped with a 'black box' or 'Language Acquisition Device' (LAD). This 'Language Acquisition Device' allows a child to formulate rules of language based on the input they receive. In other words, the mind contains blueprints for grammatical rules and once activated, the potential of creativity follows. Krashen sifted and used Chomsky's findings to build his own theory of foreign language learning. He announced:

- there is a distinction between acquisition and learning. Language is learnt in a natural order not in a programmed way.
- acquired language enables us to express ourselves freely - learned language allows us to monitor our production - but only useful in limited circumstances.
- we learn language through 'processing comprehensible input' - we do not need to ask the learner to produce language – she/he automatically will when he is ready to do it.

Another relevant learning theory to our chapter is known as Developmental Psychology, partially credited to Jean Piaget, who determined that learning takes place in very predictable, sequential, innately determined stages. His scientific findings in early childhood development studies and his experiments have been implemented with people of all ages. He believed that language acquisition stems and develops mainly from 'a combination of developmental readiness stages, social interaction, and an individual's unique interpretation process'. Piaget's theories led to the beginning of the Cognitive Learning Theories which criticised and considered behaviorism way too simplistic and parochial in explaining human learning. These theories establish that human beings learn through experiences; 'a life-long series of

trial and error'. His theory led to less mechanistic and more humanistic approaches in language learning. In the 1980s, these theories in turn came to be overshadowed and denied by more interactive views of language learning/ teaching, which came to be known as Communicative Language Teaching (CLT). Communicative Language Teaching subscribed to a broad set of principles such as:

- Learners learn a language through using it to communicate.
- Authentic and meaningful communication should be the goal of classroom activities.
- Fluency is an important dimension of communication.
- Communication involves the integration of different language skills.
- Learning is a process of creative construction and thus subject to trial and error.

Whether one agrees with previous theories for learning a language or not, the important implication in a course of English as a Foreign Language is that students learn and acquire a given language by means of eclectic (combination) approaches. The combination of theoretical preparation and teaching experience is the key element that will produce a good English language teacher. A good teacher, to our mind, is the one who chooses and works with whatever materials, techniques and steps that work well for the learner, suits the learner's cognitive styles, regardless of the theory of learning. In other words, as teachers may apply the different theories of learning, they need to keep awareness that these theories are subjective by their own nature. Each denies the validity of the others. What is now and what is next? The future is uncertain and no methodological directions in second language teaching can be anticipated. Some believe in carrying and refining the current trends; others might

appear a bit 'science-fiction-like' in their vision. Whatever occurs to be new, we still believe in and adhere to our own findings suggested in 'our personal comments' and labeled the ECPTA.

## Chapter Two

### The Theory of Multiple Intelligences

#### Overview and Evaluation

#### Introduction

Intelligence held and is still holding a certain mystique in our world. It has fascinated people ever since antiquity. This abstract concept has been involving scientists in a never ending debate about its nature and whether it is determined by hereditary factors, the environment or something else. 'What makes us, humans, 'tick' and why do some humans tick faster than others?' This is part of the problem regarding intelligence because nobody is able to adequately define what it really is. There are a whole host of definitions but unfortunately these definitions do not really agree with each other. Every approach comes up with its own different theory, using its own different perspective, assumptions, and often contradicting at least one other theory. Another part of the problem resides in the fact that human intelligence is not static. The many facets of its evolution are a matter of mystery, because this evolution can not be observed like concrete things in the paleontological record. This fact does the scientists an unfriendly turn since it makes the apprehension of intelligence a more complex task. As an attempt to shed light on this concept we will consider in this chapter an overview of the different definitions of intelligence and the radical re-thinking of intelligence proposed by Gardener along with its ramifications for the classroom.

## 2.1 Definitions of Intelligence

Traditionally, human intelligence has been represented by a single score based on how well we do on timed paper-and-pencil tests and by grades students get at schools. In 1904, after examining the literature of the 19th century on the psychological construct of intelligence, the English psychologist, Charles Spearman, quoted by Gazzaniga (2005), suggested that those 'who performed well on one test of intelligence seemed to perform well on all others'. Spearman thus theorized the existence of a general intelligence factor which he decided to label *g*. He believed that *g* was used to process many cognitive domains and thus makes some of us good at nearly every intellectual challenge. Since then, many mainstream investigators have supported Spearman's hypothesis. The consensus among conventional psychologists and traditional scientists today continues to be that a *g* factor accounts for a great deal of the variations in intelligence test scores. This general capacity is assumed to be fixed and inherited. We, humans, receive it in different degrees at birth and it remains with us constant throughout our life. In the early 1900's, the French psychologist Alfred Binet developed measures that he believed would predict the success or failure of children in the primary grades of schools of Paris. Binet developed a test whereby he had Parisian school children complete tasks, including a) following commands, b) copying patterns, c) naming objects, d) putting items in order or arranging them properly. He created a standard based on his research data. For example, if seventy percent (70%) of 8-year-old children could pass his particular test, then he stated that success on the test represented an 8-year-old level of intelligence. From his work stemmed the phrase intelligence quotient (IQ). IQ is calculated as the ratio of mental age (MA) to chronological age (CA), with the number "100" being considered an average IQ. For example, an 8 year old child who

passed the 10 year-old child's test would have an IQ of  $10 / 8 \times 100$ . An IQ over 140 means someone is a genius, while the average is between 90 and 110. Someone with an IQ below 70 may be diagnosed as someone who needs special assistance.

To sum up for here, Binet's efforts became the forerunner of the standard IQ test that most mainstream psychologists use today. This test has been based, in the main, on the study of a "g" factor, genetic, unitary and consistent. Now, if one adheres to this narrow interpretation of assessing cognitive capabilities, he also probably believes that we are born with a single intelligence that, in the main, cannot be changed but can be easily measurable by mainstream psychological tools.

Tests to measure the amount of intelligence we possess and to predict our intellectual achievement have been used since the early 20<sup>th</sup> century. Intelligence tests developed by French psychologist Alfred Binet and his colleague Theodore Simon have become a generalized measure of intellectual ability. Binet however, believed that his scale did not allow for an actual measurement of intelligence. He maintained that intellectual qualities are not superposable and cannot be measured in a quantifiable way like linear surfaces, but can be classified into a hierarchy among diverse intelligences (Gould, 1996). Known today as an IQ test, Binet's scale and similar tests are used by some researchers and educators who continue to pursue a single capacity model of intelligence despite Binet's belief to the contrary. Other researchers, like Gardner (1983) and Sternberg (1988), are exploring a multifaceted model of intelligence.

During this same century, two major consensus definitions were proposed by two groups of scientists. First, from "Intelligence: Knowns and Unknowns, a report which was published by the American Psychological Association in 1995:

Individuals differ from one another in their ability to understand complex ideas, to adapt effectively to the environment, to learn from experience, to engage in various forms of reasoning, to overcome obstacles by taking thought. Although these individual differences can be substantial, they are never entirely consistent: a given person's intellectual performance will vary on different occasions, in different domains, as judged by different criteria. Concepts of "intelligence" are attempts to clarify and organize this complex set of phenomena.

This definition focuses on four key concepts which can be illustrated in the following figure:

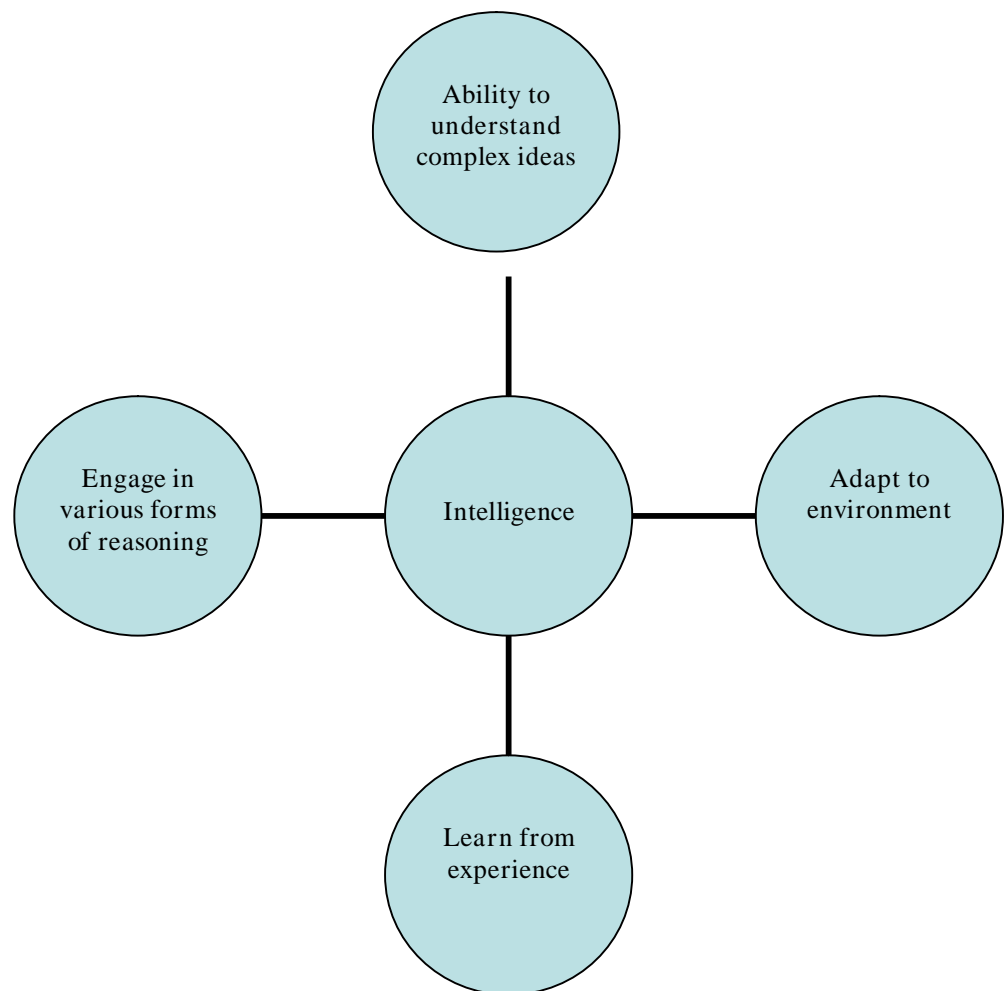


Figure 8 Intelligence according to “Intelligence: knowns and Unknowns”

A second definition of intelligence comes from "Mainstream Science on Intelligence", which was signed by 52 intelligence researchers in 1994 (In 1994, the same well respected researchers published the same statement in Wall Street Journal):

a very general mental capability that, among other things, involves the ability to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly and learn from experience. It is not merely book learning, a narrow academic skill, or test-taking smarts. Rather, it reflects a broader and deeper capability for comprehending our surroundings—"catching on", "making sense" of things, or "figuring out" what to do.

When the researchers were asked to say whether a given aspect of behaviour was an important aspect of intelligence,

- 99.3% thought that abstract thinking or reasoning was important,
- 97.7% - problem solving ability
- 96% - capacity to acquire knowledge
- 80.5% - memory
- 71.7% - mental speed
- 62.4% - general knowledge
- 59.6% - creativity
- 18.9% - achievement motivation

Unlike the first definition, "Mainstream Science on Intelligence", stressed the concepts exhibited in the following figure:



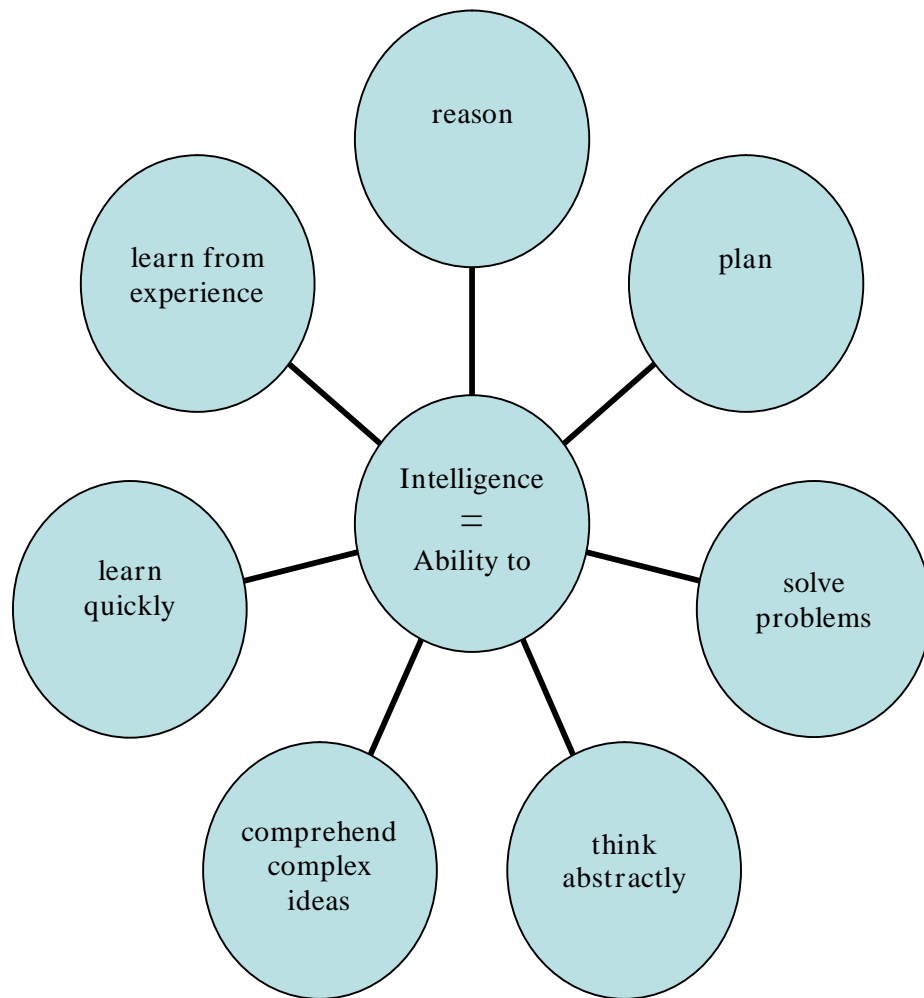


Figure 9 Intelligence according to "Mainstream Science on Intelligence"

According to Encyclopedia Britannica, intelligence is the “ability to adapt effectively to the environment, either by making a change in oneself or by changing the environment or finding a new one”. This definition of intelligence seems to us "intelligent", because it includes the concept of learning (a change in oneself), transforming the environment for the benefit of mankind (changing the environment) and migration (finding a new environment). Encyclopedia Britannica asserts that "intelligence is not a single mental process, but rather a combination of many mental processes directed toward effective adaptation to the environment.” Therefore,

Intelligence is a multifactorial entity, which involves elements such as language, thought, memory, imagination, reasoning, capacity for learning and integration of several sensory modalities. The brain is bound to use all these factors to adapt effectively.

One of the most interesting theories of intelligence is the one proposed by Sternberg (1988) .He believes that intelligence is constituted of three interdependent aspects:

Components	Explanation
The internal world: cognition	1-processes for deciding what to do and for deciding how well it was done  2-processes for doing what one has decided to do  3-processes for learning how to do
The external world: perception and action	1-adaptation to existing environments  2-the shaping of existing environments into new ones  3-the selection of new environments when old ones prove unsatisfactory
The integration of the internal and external worlds through experience	1-the ability to cope with new situations  2-processes for setting up goals and for planning  3-the shaping of cognitive processes by external experience

Table 9 Intelligence Components

To illustrate Sternberg' factors we suggest the following example:

Topic: Hunting Down Gazelles in the Algerian Sahara

Situation: Early 'Touaregs' Hunting Gazelles for Survival

Learning how to stalk the gazelle, to approach it and touch it with an arrow are cognitive abilities. Having the ability to hunt the gazelle in different environments, moving from an area to another when hunting becomes scarce and manufacturing hunting tools or traps are examples of processes related to the external world. Possessing the ability to coordinate hunting through communication with the other members of the group so that an efficient hunting strategy is set up, and for ensuring an adequate development and endurance of the hunting process through cognition, perception and action, illustrate the integration between the internal and external worlds. Furthermore, it is worth mentioning that the term “intelligence”, as it is used nowadays, involves a much broader area, which includes the following:

#### Cognitive intelligence

It embraces a mental capacity, ability to analyze and synthesize data which can be expressed in the form of symbols. It also encompasses the ability to associate facts, to conduct simple linguistic transformations, to do numerical calculations, and to perform a simple processing of symbols. Such intelligence can be tested and measured. (N cka, 2002)

#### Emotional intelligence

It describes a capacity to perceive, assess, and manage the emotions of one's self, and of others. The use of emotions may facilitate thinking. It is connected with mental skills such as assertiveness and empathy. (Goleman, 1995)

### Creative intelligence

It is a skill to produce novel and appropriate responses. It is impossible to be measured, but without any doubt, people differ in their creative abilities (Sternberg, 1996). It is looking for answers that haven't been found before. In an article published by Enzinearticles (2009)(<http://ezinearticles.com/?What-is-Creative-Intelligence-and-How-Do-You-Develop-it?&id=3108316>) Karen asserts that this intelligence can be learned and she suggested the following tips to enhance it:

#### Develop an ability to see different angles

Learners have to come up with a totally new way of looking at things. They should use a way of looking different from the one they are using everyday. They should "see the positions that have been taken and see if they can come up with a different angle". If they rearrange things, classify them, turn them upside down, and find a new way of looking at them, they will certainly discover new things.

#### Develop speed and ease finding new ideas

It is believed that practice makes perfect. It is true, but one must look for new ways to practise and do anything; insignificant things and big important ones. Learners are to seize any and every opportunity to practise their skill whenever an opportunity develops. In the long run, they will be able to come up with new and exciting ideas. We should remember, the more we practice, the better we'll get".

#### Develop an ability to expand on existing ideas

We have to bear in mind that there is always more to achieve. We must believe and convince ourselves that there is nothing but more and more possibilities to do things. In addition to the existing idea there is more to add. Practising thinking this

way, will give birth to new and better ideas. One should remember that thanks to their insatiable curiosity, creative people have turned themselves into great thinkers.

Social intelligence – This type of intelligence is dealt with separately with by a circle of scholars who label it emotional intelligence. It is widely used and does support curricula and the teaching operation.

(<http://psychology.about.com/od/personalitydevelopment/a/emotionalintell.htm>)

According to John D. Mayer and Peter Salovey, cited by Alan McCluskey (2008), emotional intelligence (EI) is "the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions." Goleman, (1995) defines "EI" as "the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships."

What are some of the characteristics of an individual with high emotional intelligence? Mayer and his colleagues believe that the characteristics of emotionally intelligent people include.

- Better at perceiving, using, understanding, and managing emotions.
- Generally more agreeable and open.
- Less likely to engage in risky behaviors including smoking, drinking, drug abuse, and violence.
- More positive social experiences

Karen Stone McCown et al. (1998) asserts that including EI in schools would result in the following characteristics:

### Self awareness

It involves being able to recognize feelings and put a name on them. Its importance is in the fact of being aware of the relationship between thoughts, feelings and actions. "What thought sparked off that feeling? What feeling was behind that action? "

### Managing emotions

Beliefs have a fundamental effect on the ability to behave appropriately and on how things are done. "Many people continually give themselves negative messages". Hope can then, be a useful asset. Finding ways to deal with anger, fear, anxiety and sadness is essential to one's survival. Learning how to soothe oneself when upset, for example, is part of managing emotions. "Being able to channel emotions to a positive end is a key aptitude".

### Empathy

evaluating a given situation and being able to act appropriately requires understanding the feelings of the others involved and being able to take their perspective. It is important to be able to listen to them without being carried away by personal emotions. There's a need to be able to distinguish between what peers do or say and personal reactions and judgments.

### Communicating

1. Developing good relationships has a very positive effect on all involved.
2. What feelings are being communicated to others?
3. "Enthusiasm and optimism are contagious as are pessimism and negativity".
4. Being able to express oneself without anger or passivity is a key asset.

### Co-operation

Effective cooperation necessitates the ability to know how and when to take the lead. Effective leadership is not built on domination (as it is the case in most countries). It is the art of helping people work together on common goals. Recognizing the value of the contribution of others and encouraging their participation can often do more good than giving orders or complaining.

### Resolving conflicts

In resolving conflicts there is a need to understand the mechanisms at work or in school. People or students in conflict are generally locked into a self-perpetuating emotional spiral. Much of the resolution of conflicts calls on using emotional skills we can find in literature.

In the early 1980s, Howard Gardner from Harvard University redefined the concept of intelligence. When he published his book entitled *Frames of Mind*, second edition, Gardner (1984, p. 60) writes:

To my mind, a human intellectual competence must entail a set of skills of problem solving—enabling the individual to resolve genuine problems or difficulties that he or she encounters and, when appropriate, to create an effective product—and must also entail the potential for finding or creating problems—and thereby laying the groundwork for the acquisition of new knowledge.

He suggested that intelligence is not a single entity, but a variety of talents. His theory of Multiple Intelligence, considers musical, kinesthetic or spatial intelligences (among four others) alongside the more traditional verbal and

mathematical skills. A detailed study of these intelligences is dealt with in the next point entitled 'The Theory of Multiple Intelligences'

### 3.2 The Theory of Multiple Intelligences

The multiple intelligences theory, originated by Gardner (1983), breaks intelligence down into nine different components: logical, linguistic, spatial, musical, kinesthetic, naturalist, intrapersonal and interpersonal intelligences. This theory grew from observations of human development and of brain injury victims who demonstrate an acute loss of a particular cognitive function - e.g., the ability to think numerically, or the ability to understand written language - without showing any loss in other cognitive areas. Its basis finds accommodation in Gardner's own scripts (1993: xxiii):

In the heyday of the psychometric and behaviorist eras, it was generally believed that intelligence was a single entity that was inherited; and that human beings - initially a blank slate - could be trained to learn anything, provided that it was presented in an appropriate way. Nowadays an increasing number of researchers believe precisely the opposite; that there exists a multitude of intelligences, quite independent of each other; that each intelligence has its own strengths and constraints; that the mind is far from unencumbered at birth; and that it is unexpectedly difficult to teach things that go against early 'naive' theories or that challenges the natural lines of force within an intelligence and its matching domains.

When Gardner developed his MI theory, he used a set of criteria to define intelligence. According to him, an intelligence is substantiated when it is demonstrated by evidence of:



## 1 Potential isolation by brain damage

Intelligences must be susceptible to isolation by brain damage. Assuming that there are brain structures for each intelligence, brain lesions can impair one intelligence while leaving all the others intact. For example, if a person has damage to Broca's area (the left frontal lobe), linguistic intelligence may be greatly damaged. The individual may have great trouble reading, writing, and speaking, yet still be able to do math, sing and dance. According to Armstrong (2003), the major areas of the brain associated with each of Gardner's intelligences are:

- 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 "non-living things")

## 2 The existence of idiot savants, prodigies and other exceptional individuals

Evidence of single intelligences can be seen operating at very high levels in savants and prodigies. An example of this is the musical savant who can play a piano composition after hearing it only once or an individual who can calculate multidigit numbers in his head (without using a calculator or a computer). It is worth mentioning that in our context, savants are people who possess amazing abilities in one intelligence while other intelligences may be very low. An idiot savant is an intellectually disabled person who exhibits extraordinary ability in a highly specialized area, such as mathematics, music, or linguistics.

## 3 An identifiable core operation or set of operations

An intelligence must have an identifiable set of core operations. Each intelligence has a different set of required operations in order for it to function. For example, in musical intelligence, the core operations may be the ability to discriminate among different musical notes and among various rhythmic structures. In understanding the English language, the core operation may be to discriminate between the different English language sounds.

## 4 A distinctive development history, along with a definable set of 'end-state' performances

There should be an identifiable developmental history of the intelligence. There are certain activities associated with each intelligence in an individual's growth. Each activity has a time of beginning in early childhood and a time of peaking during one's lifetime. For example, musical intelligence seems to peak early in order to develop a high level of proficiency, but linguistic intelligence can peak late.

## 5 An evolutionary history and evolutionary plausibility

Intelligences must be rooted in evolutionary history. Gardner hypothesized that each of the nine intelligences has its roots deeply embedded in the evolution of human beings. For example, the cave drawings in the Hoggar, Algeria support the existence of early spatial intelligence. The written notations in early cultures demonstrate the presence of linguistic intelligence (e.g., Tifinar, Berber alphabet). The early tools we find in museums show bodily-kinesthetic intelligence.

## 6 Support from experimental psychological tasks

Intelligence must be supported by results of psychological experiments. Gardner believes that psychological tasks are a good way to see the intelligences working in isolation from one another. Subjects may master a specific skill, such as reading, but they do not transfer that success to logical-mathematical intelligence. In other words, even though they can read well they might not be able to do mathematics. The tasks are independent from each other.

## 7 Support from psychometric findings

The existence of an intelligence may be supported by psychometric findings. Psychometrics is "The branch of psychology that deals with the design, administration, and interpretation of quantitative tests for the measurement of psychological variables such as intelligence, aptitude, and personality traits". (The online free dictionary)

Gardner is no champion of standardized testing, but he does suggest that we can look at standardized tests for support of the theory of multiple intelligences. In the Wechsler Intelligence Scale, for example, children are asked questions that require linguistic intelligence (e.g., vocabulary), logical-mathematical intelligence (e.g., arithmetic), and spatial intelligence (e.g., picture arrangement).

## 8 Susceptibility to encoding in a symbol system

An intelligence can be symbolized. For example, there are spoken and written languages, graphic languages, computer languages, musical notation systems, and ideographic languages. Only those intelligences that have satisfied all or a majority of the criteria mentioned above were selected as bona fide intelligences (Gardner 1985). Hence, whoever wants to know if an aptitude is intelligence or not, must refer to the above criteria.

Hence, in order to qualify as intelligence, specific criteria (see Table 1) must be met.

Criteria	Description
Potential Isolation by Brain Damage	The experiences of stroke victims as well as evidence from individuals suffering from brain injuries point to the distinctive autonomy of an intelligence.
The Existence of Savants, Prodigies, and Other Exceptional Individuals	There are individuals who have exceptional abilities in some areas, yet have significant impairments in others, such as people with autism.
An Identifiable Core Operation (opération centrale) or Set of Operations	This refers to the existence of one or more basic information-processing operations that can deal with specific kinds of input. Examples include nearly automatic mental processes like

	distinguishing between different pitches when listening to music, or making sense of facial expressions in interpersonal encounters.
A Distinctive Developmental History and a Definable Set of Expert "End-State" Performances	This describes a distinct developmental trajectory of an intelligence that individuals move along from infancy to adulthood and from novice to master in a specific domain.
An Evolutionary History and Evolutionary Plausibility	An intelligence ought to have some basis in evolutionary biology, meaning that its roots reach back into the history of the species, evidenced by its presence in other members of the animal kingdom; bird song or social organization among primates are examples.
Support from Experimental Psychological Tasks	Using experimental tests, psychologists have been able to investigate particular abilities and demonstrate how different neural structures help support different kinds of mental processing. Also, evidence for a particular intelligence can

	be seen in experiments where subjects are taught a skill and then have not been able to automatically transfer that learning to a different domain.
Evidence from Psychometric Findings	Looking at scores from standard intelligence tests, Gardner suggests that a lack of correlation between scores on verbal, spatial and numerical abilities indicates the relative independence of each intelligence.
Susceptibility to Encoding in a Symbol System	An intelligence should be captured in a symbol system, such as notations for math, language and music. Also included are gestures and facial expressions that represent moods, intentions, and ideas.

Table 10. Gardner's Criteria to Identify Intelligences

Contrary to informal opinion in the lay community, Gardner does not feel that everyone is of equal intelligence. Instead, he feels that the single g factor of Spearman and other theorists is not a valid measure of intelligence, and that it is more meaningful to conceive an individual's intelligence as a unique combination of varying abilities within a number of relatively autonomous intelligences.

Considering Multiple Intelligences makes us the fact that every individual has some strengths and that we ought to utilize these strengths in a productive way. Hence, identifying our student's potential is a MUST in order to give each what he deserves and not fall in the trap which led many scholars accuse geniuses of being stupid. One may reflect on this problem by studying the following “famous ignoramuses”, how they behaved when in class, and how they were treated:

- Jean Paul Sartre – pretended that he could read
- Marcel Proust - couldn't write an essay when he was at school
- Agatha Christie - didn't want to learn how to write
- Carl Jung – was afraid of math lessons
- Beethoven – declared by his teacher a “hopeless composer”
- Pablo Picasso – hated school and thought that he couldn't learn how to read and write
- Emil Zola - received “F” for his final exam in literature
- Honore de Balzac – teachers considered him an idiot
- Thomas Edison - escaped from school because his teacher had beaten him with a cane for fidgeting and not paying attention.

### 3.2.1 Linguistic Intelligence

This intelligence refers to an individual's capacity to use language effectively as a means of expression and communication through the written or spoken word (Examples: poets, writers, orators, and comedians). People who possess this type of intelligence are generally good at writing, and oration. They also tend to have broad vocabularies and learn languages very easily. Thomas Armstrong (2000) gives a richer definition: it is 'the capacity to use words effectively whether orally or in writing (e.g., as a storyteller, a poet, playwright, editor or journalist).Some famous

examples of people specialized in linguistic intelligence include: Shakespeare, Virginia Woolf and Walt Whitman).

### 3.2.2 Logical-Mathematical Intelligence

It refers to an individual's ability to recognize relationships and patterns between concepts and things, to think logically, to calculate numbers, and to solve problems scientifically and systematically. It does with numbers, with logic and abstractions. Those who favour this intelligence generally excel in mathematics and programming, Examples: mathematicians, economists, lawyers and scientists. Some famous examples include: El Khawarismi and Albert Einstein).

### 3.2.3 Visual -Spatial Intelligence

Visual-Spatial Intelligence involves the capability to think in images and orient oneself spatially. It does with visual perception and spatial judgment. People in this group generally possess high hand-eye coordination, can interpret art well and can tessellate objects (as in loading a lorry) easily. In addition, spatially intelligent people are able to graphically represent their visual and spatial ideas. Examples: artists, decorators, architects, pilots, sailors, surveyors, inventors, and guides. Some famous examples include: Picasso and Leonardo DaVinci).

### 3.2.4 Musical Intelligence

It refers to the capacity to appreciate a variety of musical forms as well as being able to use music as a vehicle of expression. Musically intelligent people are perceptive to elements of rhythm, melody, and pitch (Examples: singers, musicians, and composers. Some famous examples include: Mozart, Beethoven, Mohamed Abdelouahab). Armstrong (2000) defines this intelligence as "the capacity to perceive, discriminate, transform and express musical forms". According to him, one



can possess a global and intuitive (top- down) understanding of music, an analytical technical (bottom-up), or both. Music helps people in this category work better and achieve very good results.

In an article entitled "The Brain on Music" cited by "Brain Leaders and Learners" (<http://www.brainleadersandlearners.com/>) music is said to hold an immensely powerful influence over the brain. It can be a source of inspiration and plays an important role in calming one's thinking. When used intelligently it can:

1. create quiet in our minds and can reduce stress.
2. create mentally stimulating environments for creativity and new innovations
3. improve concentration and memory when played in the background.
4. enhance our senses and increases a sense of sympathy and love
5. uplift and inspire us, releasing deep joy or even deep sadness, conveying wit and affirming our common humanity.
6. get us moving, both relaxing us and awakening us at the same time.
7. engage our emotions and comfort us.
8. elongate the sense of space and time, inducing a state of relaxed alertness.
10. lead us into acting out dynamic behavior and self-expression.
11. lead to deep peace and spiritual awareness. It often helps us to transcend pain. (This is the case of religious songs or what we call in Arabic "anasheed").

### 3.2.5 Bodily-Kinesthetic Intelligence

This intelligence refers to the capacity of using one's own body skillfully as a means of expression or to work with one's body to create or manipulate objects. Armstrong (2000) defines it as "the expertise in using one's whole body to express ideas and feelings (Example: dancers, actors, athletes, or mimes) and facility in using one's hands to produce or transform things" (e.g., a craftsperson, sculptor, mechanic or

surgeon). Always in Armstrong's mind, this intelligence 'includes specific physical skills such as coordination, balance, dexterity, strength, flexibility, and speed as well as proprioceptive, tactile and haptic capacities'. In other words Bodily-Kinesthetic intelligence does with muscular coordination, movement and doing. People in this category learn better by setting them to do things and interact physically. Most dancers, gymnasts and athletes are in this category.

### 3.2.6 Interpersonal Intelligence

This intelligence involves the capacity to appropriately and effectively communicate with and respond to other people. It is the ability to work cooperatively with others and understand their feelings. It does with interaction with others. Persons categorized here are usually extroverts and charismatic. According to Armstrong (2000), Interpersonal intelligence is "the ability to perceive and make distinctions in the mood, intentions, motivations, and feelings of feelings of other people". This might include sensitivity to others' facial expressions, gestures and voice; and the capacity to respond appropriately to these cues. (Examples: sales people, politicians, religious leaders, talk show hosts, etc.) Some famous examples include: Hitler, Gandhi, and Oprah Winfrey.

### 3.2.7 Intrapersonal Intelligence

Intrapersonal intelligence refers to the capacity to accurately know oneself, including knowledge of one's own strengths, limitations, goals, and feelings. Those under this category are capable of self-reflection and tend to be introverted and contemplative. They have the capacity for self-discipline, self-understanding and self-esteem. Armstrong (2000) defines this type of intelligence as "self-knowledge and the ability to act adaptively on the basis of that knowledge". Mary Ann Christison (19985) says that this intelligence includes such skills as understanding how one is similar to or

different from others, reminding oneself to do something, knowing about oneself as a language learner, and knowing how to handle one's feelings, such as what to do and how to behave when angry or sad. (Examples: entrepreneurs, therapists, and philosophers. Some famous examples include: Freud, Bill Gates, and Plato).

While pondering at this intelligence, we noticed that nothing is said about its relationship with interpersonal behaviour as concerns body language and its role in communication. To our mind, ignoring this element means sending the whole MI theory in a dustbin. Each of us knows that our body parts send messages but most of us do not realize that people in different parts of the world "speak" different body languages. A signal for "good" in one culture may mean "nothing" in another; being so close to a person in one culture can be interpreted as "an insult" in another.

Training in body language is still relatively new for Algerian teachers. It is therefore important that educators understand not only how to receive messages through body language but also what messages they may be sending even when they are not talking in EFL class.. Misunderstanding of body language may not only cause a long-lasting embarrassment but also be a life threat. A real example happened during Boston TESOL Convention 2010. I was using my middle finger to show an American lady some information in an article. Her response was very negative and she told me that using the middle finger to show something is impolite in the American culture. Since then, I have understood the true value of body language.

Definition.

"Body language," includes all the communication through the non-verbal channel. This can include how we greet others, how we sit or stand, our facial expressions, our clothes, hair styles, tone of voice, eye movements, how we listen, how we breathe,

how close we stand to others, and how we touch others. The pressure of body language can especially be felt in emotional situations where body language usually prevails over words. This article will use the terms "body language" and "nonverbal communication" interchangeably.

### The Importance of Body Language

Recent literature maintains that in a normal conversation more than 65 percent of social meanings are transmitted through the non-verbal channel. Misuse of body language can be an unpleasant or even dangerous experience for message encoders. Consider the following examples:

In 1988, two Laotian men walked into a Los Angeles bar where a singer, who was also from an Asian country, was entertaining patrons. The men sat at empty spaces near the front with their feet pointed straight to the singer. After the bar was closed, the singer followed the two men to a parking lot where they got into an argument about how the men pointed their feet at the singer's face. The argument became fierce when the singer pulled out a gun and killed one of the men.

In 1992, when President George H.W. Bush made a state visit to Australia people lined up along the roadside to welcome him. The American President greeted them with raised fingers in the form of "V" with the back of his hand toward the onlookers. The following morning a headline in a local newspaper proclaimed that the "American President insulted the Australians."

In 1998, a newly married American couple went to New Zealand for their honeymoon. They rented a car and toured until they missed a stop sign. A police officer pulled them over. They explained that they were new in town and didn't know

about the local traffic so were given a warning instead of a ticket. As a "thank you" gesture, the husband gave the "thumb up" sign. The police officer called for back up and hand cuffed the American man. (A "thumb up" is seen as a rude gesture in New Zealand.)

**Head** In most societies, a nodding head signifies agreement or approval. But in some cultures, like parts of Greece , Yugoslavia , Bulgaria and Turkey , a nodding head means "no." In most Asian cultures, head is where spirit resides and one should not touch another's head.

Becoming sensitive to the clues of body language can help teachers communicate more effectively with students or scholars from other cultures. they can understand what they are saying even when they are not talking. they can sense when students are silent and "digesting information", or when they are silent and confused.. Body language can help us spot contradictions between what students say and what they really mean. Here are some examples provided by Rugsaken, K. (2006):

**Face:** Facial expressions reflect emotions, feelings, and attitudes. While expressing "true" feeling and emotion is valued in the West, it is prohibited in the East. The Asians, who are taught to practice self-control, are often labeled as "emotionless" and of possessing "mixed-up emotions." Smiling in the East is not necessarily a sign of happiness; rather it signifies "yes," "I don't understand what you said," or can be a cover-up for embarrassment.

Eyes: While good eye contact is praised and expected in the West, it is seen as a sign of disrespect and challenge in other cultures, including Asian and African. The less eye contact these groups have with an individual, the more respect they show.

Closing eyes: In 1975, former Vice President Walter Mondale was invited to deliver a speech. He became irritated when he noticed that more than half of the audience closed their eyes. When the talk was over, Mondale snapped at the U.S. ambassador, "Why did I bother to come and talk to them?" "Why, Sir?" the ambassador asked. "They didn't care to hear what I had to say; they were sleeping." "No, Sir," the ambassador replied, "they closed their eyes to close out everything else in order to digest your speech."

Examples of some body parts and their cultural meaning:

Nose . Tapping the nose is more common in Europe than in the United States. It means "confidential" in England but "watch out!" in Italy. Blowing the nose on public streets, while seen as an impolite gesture in North America , is a common practice in most Asian countries. This rids the body of waste and; therefore, it is seen as healthy.

Lips and Mouth. Kissing is a sign of love or affection in the West. People kiss when they meet or when they say goodbye. But kissing is viewed as an intimate act in Asia and is not permissible in public. In some cultures, such as Filipino, Native American, Puerto Rican, and several Latin American, people use their lips to point, instead of a finger.

Arms. Some cultures, like the Italians, use their arms freely. Others, like the Japanese, are more reserved; in Japan it is considered impolite to gesture with broad movements of the arms.

Hands. Of all the body parts, the hands probably are used most for communicating non-verbally. Hand waves are used for greeting, beckoning, or farewell. The American "goodbye" wave can be interpreted in many parts of Europe and Latin America as the signal for "no." The Italian "goodbye" wave can be interpreted by Americans as the gesture of "come here." The American "come here" gesture can be seen as an insult in most Asian countries where they use it for calling an animal. Asians call others with a similar hand movement but with their palm downward.

### 3.2.8 Naturalistic Intelligence

It refers to one's ability to identify and classify the components that make up the environment we are living in. This intelligence enables us to 'recognize, categorize and draw upon certain feature of the environment'. Its core resides in the human ability to recognize various plants, animals, and other parts of the natural environment, like clouds or rocks, and their role in life. Armstrong (2000) defines this intelligence as the "expertise in the recognition and classification of the numerous species –the flora and the fauna-of an individual's environment. Mary Ann Christison (2005) believed that this type of intelligence involves also "the ability to recognize cultural artifacts like cars or sneakers". This intelligence would have been especially apt during the evolution of the human race in individuals who served as hunters, gatherers, and farmers. (Examples: Some famous examples include Charles Darwin, Ibn Sina- Avicenna).

### 3.2.9- Existential Intelligence

In the human society, a great number of people are curious about the origin of life, the meaning of death and the truth about ultimate realities:

Why are we here on this planet?

What happens to us after death?

Are there extraterrestrials?

Do animals understand each other?

Do ghosts or spirits exist?

These are just few questions many must have asked or heard someone asking them.

The mechanism which treats such a concept stems from what Gardener (1999) calls Existential Intelligence. According to him existentialism intelligence is exhibiting "the proclivity to pose and ponder questions about life, death and ultimate realities".

It is the ability to conceptualize and understand deeper the still unanswered questions about our being on earth, the meaning of life, soul and death. In other words, this intelligence might be manifest in any human being interested in searching an answer for the intricacies of the existence itself. There are people who appear to have an extraordinary ability to sense. In most literature they are said to have a sixth sense. In our culture, they are called 'fortuneteller, dervish, or M'rabet (one who foretells your future). Their importance in society is due to their being psychic, or possessing the ability to pose, and sometimes even to answer life's larger questions related to our existence on earth. Some pretend to foretell one's future or have the capacities to cure incurable diseases. I might be wrong to use the term pretend because no one can confirm or reject what these people are doing.

One must have noticed that a lot of people, all over the world, do believe there are persons equipped with high existentialism intelligence and often visit them



to 'buy' an answer to their inquiries: didn't the Israeli Intelligence Services contacted a famous foreteller to locate and rescue their kidnapped soldier, Gilad Shalit? Did not history teach us that some presidents, before and during elections, did take these people as their 'Inquiry Office'? A very relevant example is Joan Quigley's. This lady was best known for her astrological advice to the Reagan White House. She was often called into service by First Lady Nancy Reagan in the 1980s. Former chief of staff Donald Regan himself admitted: "I revealed that the president's schedule and therefore his life and the most important business of the American nation was largely under the control of the first lady's astrologer." (Wikipedia the free encyclopedia). Such a strange story, strange for those with 'little learning', does show that existentialist intelligence is 'sacred' for many and is dictating its orders. Even the big boss has but to obey!

As a summary of what preceded we suggest the following table, which offers a more detailed and comprehensive description of the nine intelligences:

Intelligences	Description
Linguistic	An understanding of phonology, syntax, and semantics of language, which allows individuals to communicate in spoken and/or written forms. Professions that rely on skills in this area include poets, writers, lawyers, teachers, and public speakers.
Musical	Ability to understand and express components of music and sound, including melodic and rhythmic patterns. Examples of high levels in this area are seen in composers, musicians, singers and

	percussionists.
Logical-Mathematical	Enables individuals to recognize, use and analyze logical structures. Mathematicians and scientists primarily apply this intelligence in their reasoning and investigations. Computer programmers, statisticians, and philosophers also demonstrate strength in this capacity.
Spatial	Allows people to perceive the visual/spatial world accurately, to transform the information, and recreate visual images from memory. Blind people depend on this intelligence to create mental maps of their environment. Artists, architects, and surveyors represent examples of people with heightened spatial intelligence.
Bodily-Kinesthetic	Ability to use all or part of the body to solve problems or create products. Rock climbers, actors, athletes, and dancers highlight this intelligence through precision, agility, and control of their bodies.
Interpersonal	Capacity to recognize the feelings and intentions of others, and to use this information to persuade, influence, mediate or counsel individuals or groups toward some purpose. Successful salespeople, therapists, and effective political leaders, all rely on strong interpersonal intelligence.

Intrapersonal	Ability to access one's own emotional life through an awareness of inner moods, intentions, and motivations, and apply these understandings to help one live one's life. It is reflected in an accurate mental model of oneself, often made apparent by appropriate life choices or demonstrated in autobiographies.
Naturalist	Essential to farmers, botanists, zoologists, and meteorologists, this intelligence allows people to problem solve by classifying and using features of the natural world. It describes the ability to care for or interact with living creatures or whole ecosystems.
Existentialist	It is 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 condition as the significance of life, the meaning of death, the ultimate fate of the physical and psychological worlds.

Table 11 Multiple Intelligences

In his book entitled *MI in the Classroom*, Armstrong (2000) summarized the eight intelligences in the following chart which gives a detailed explanation of what they entail, their suitable symbol systems and high end-states:

Intelligence	Core components	Symbol Systems	High End-States
Linguistic	Sensitivity to the sounds, structure, meanings, and functions of words and language	Phonetic languages (e.g., English)	Writer, orator (e.g., Virginia Woolf, Martin Luther King Jr.)
Logical-Mathematical	Sensitivity to, and capacity to discern, logical or numerical patterns; ability to handle long chains of reasoning	Computer languages (e.g., Basic)	Scientist, mathematician (e.g., Madame Curie, Blaise Pascal)
Spatial	Capacity to perceive the visual-spatial world accurately and to perform transformations on one's initial perceptions	Ideographic languages (e.g., Chinese)	Artist, architect (e.g., Frida Kahlo, I.M. Pei)
Bodily-Kinesthetic	Ability to control one's body movements and to handle objects skillfully	Sign languages, Braille	Athlete-dancer, sculptor, (e.g., Martha Graham, August Rodin)
Musical	Ability to produce and appreciate rhythm, pitch, and timbre; appreciation of the forms of musical expressiveness	Musical notational systems, Morse code	Composer, performer (e.g., Stevie Wonder, Midorie)
Interpersonal	Capacity to discern, and respond appropriately to the moods, temperaments, motivations, and desires of other people	Social cues (e.g., gestures and facial expressions)	Counselor, political leader (e.g., Carl Rogers, Nelson Mandela)

Intrapersonal	Access to one's own "feeling" life and the ability to discriminate among one's emotions ; knowledge of one's own strengths and weaknesses	Symbols of the self (e.g., in dreams and work	Psychotherapist, religious leader (e.g., Sigmund Freud, the Buddha)
Naturalist	Expertise in distinguishing among members of a species; recognizing the existence of other neighboring species; and charting out the relations, formally or informally, among several species.	Species classifications systems (e.g., Linnaeus);habitat maps	Naturalist, biologist, animal activist (e.g., Charles Darwin, E.O. Wilson, Jane Goodall)

Table 12 MI Theory Summary

Always according to Armstrong (2000) each intelligence belongs to a specific neurological system, has its own time of beginning, and is valued by culture. (The ninth intelligence is not included due to the lack of appropriate literature.)

The following chart offers a clearer view:

Intelligence	Neurological Systems (Primary Areas)	Developmental Factors	Ways that cultures value
Linguistic	Left temporal and frontal lobes (e.g., Broca's/ Wernicke's areas	"Explodes" in early childhood; remains robust until old age	Oral histories, storytelling, literature

Logical-Mathematical	Left frontal and right parietal lobes	Peaks in adolescence and early adulthood; higher math insights decline after age 40	Scientific discoveries, mathematical theories , counting and classification systems
Spatial	Posterior regions of right hemisphere	Topological thinking in early childhood gives way to Euclidean paradigm around age 9-10; artistic eye stays robust into old age.	Artistic works , navigational systems, architectural designs , inventions
Bodily-Kinesthetic	Cerebellum, basal ganglia, motor cortex	Varies depending upon component (strength, flexibility) or domain(gymnastics, baseball, mime )	Crafts, athletic performances, dramatic works, dance forms, sculpture
Musical	Right temporal lobe	Earliest intelligence to develop ; prodigies often go through developmental crisis	Musical compositions, performances, recordings
Interpersonal	Frontal lobes, temporal lobe(especially right hemisphere), limbic system	Attachment/bonding during first 3 years critical	Political documents, social institutions
Intrapersonal	Frontal lobes, parietal lobes,	Formation of boundary between “self” and “other”	Religious systems , psychological theories,

	limbic system	during first 3 years critical	rites of passage
Naturalist	Areas of left parietal lobe important for discriminating “living” from “nonliving” things	Shows up dramatically in some young children; schooling or experience increases formal or informal expertise	Folk taxonomies, herbal lore, hunting rituals, animal spirit methodologies

Table 13 MI Theory Summary

As an attempt to add something original , we would define intelligence as the ability to activate one's brain to improve a talent that already exists within a human being or imitate and develop one which is exhibited by animals or exists in nature. The purpose of this process is to reach perfection. Since perfection is an unreachable goal, improving a talent remains a never-ending operation. Its highest development ends with the end of life on earth.

Needless to say, an improvement constitutes a new starting point for a better improvement, and the process continues this way from generation to another. Examples: Early men wanted to record information; they dug it on rocks with elementary tools (sharp tools). We might call the use of these elementary tools Intelligence- development one (D1). Later, men used the feather of a bird as a writing tool. In some parts of the world, such as in Arabia, they used the 'kalam' to write the holy Koran and the prophet's sayings. This is Intelligence D2 and is an improvement of Intelligence D1. Some time afterwards, the pen was created. This is Intelligence D3, an improvement of Intelligence D2. Next, (nowadays) men created the computer which is replacing the pen (in fact not a substitute, but an improvement). This

represents Intelligence D4 replacing Intelligence D3. Tomorrow, there must be another tool to replace the computer. There must be a new Intelligence to replace Intelligence D4 in order to meet the exigencies of the future. Everything is evolving and so should or are our intelligences!

The ability to imitate animals might be illustrated as follows:

Early men saw birds flying. They wanted to fly like birds.

### 1. Intelligence Development One

For many centuries, humans have tried to fly just like the birds. Wings made of feathers or light weight woods have been attached to arms to test their ability to fly. The results were often disastrous. Abbess Ibnou Farness was one of them.

### 2. Intelligence Development Two

Leonardo da Vinci made the first real studies of flight in the 1480's. He had over 100 drawings that illustrated his theories on flight. The Ornithopter flying machine was never actually created. It was a design that Leonardo da Vinci created to show how man could fly. The modern helicopter is based on this concept.

### 3. Intelligence Development Three

In 1783 the brothers, Joseph Michel and Jacques Etienne Montgolfier, invented the first hot air balloon. They used the smoke from a fire to blow hot air into a silk bag. The silk bag was attached to a basket. The hot air then rose and allowed the balloon to be lighter-than-air.



#### 4. Intelligence Development Four

George Cayley (1799 - 1850's) worked to discover a way that man could fly. He designed many different versions of gliders that used the movements of the body to control. A young boy was the first to fly one of his gliders.

#### 5. Intelligence Development Five

During the 20th century, many new airplanes and engines were developed to help transport people, luggage, cargo, military personnel and weapons.

#### 6. Intelligence Development Six (not yet exhibited)

In the future, there must be new aircrafts which must meet the future needs of the future generations. (Perhaps it does exist somewhere, and it is a top secret, serving the vital interests of its owner). We are sure it will become publicly known in due time.

The ability to imitate things in nature may be illustrated through the following example: When Albert Einstein was four, his father showed him a magnetic compass. The little child was so curious when he saw it. He wanted to know how it functioned in order to create things by imitating it. Later the adult Einstein said that this compass "filled him with a desire to figure out the mysteries of the universe" Armstrong (2000). We may deduce that this experience did activate Einstein genius which made him one of the towering figures of the twentieth century.

Doubtlessly, Gardner is right when he says that there are more than nine intelligences. After careful thought, we added the following intelligences which obey the criteria set by Gardner, mainly the following ones:

1-Potential isolation by brain damage

2-Susceptibility to encoding in a symbol system

### 3-The existence of idiots savants, prodigies and other exceptional individuals

#### 1 Survival Intelligence

This intelligence is a combination of verbal and kinesthetic intelligences. To illustrate this type of intelligences we suggest the following example:

Whenever a man is engaged in a fight he uses his body (kinesthetic) and accompanies it with a cry such as "yaaa !" in Karate .This sound and the body gestures during fight are indivisible, like H<sub>2</sub> and O when forming H<sub>2</sub>O. In Islam, this meaningless wild sound (proximate to animals rather than to humans) was given a meaning to fortify this intelligence and was translated into 'Allahou Akbar!'. In the world of animals this intelligence, most of the time, manifests itself. Whenever a tiger, as an example, is fighting it makes specific war sounds. The tiger's fighting and the sound it makes are indivisible and form one intelligence we have called Survival or Natural Intelligence. This new type of intelligence does obey Gardner's criteria because its two components have already been confirmed as intelligences.

#### 2 Temporal Intelligence

We believe the ability to tell time without referring to technology existed in people before the creation of the clock. This ability was and still is so high in certain people and animals. It is often referred to as the biological clock. First, its role was controlling the wake-sleep cycle, and the flow of activities of early people. Later, with the arrival of Islam, this intelligence was given much importance because people had to observe prayers at prescribed periods of the day: dawn, noon, afternoon, sunset and evening (Fajr, Dhohr, Asr, Maghreb, and Isha). People who had such intelligence were often solicited to take care of mosques and prayers (e.g., El Mouaadhine, or the Muezzin).

How does this new intelligence obey the three criteria cited above?

#### 1-Potential isolation by brain damage

The evidence which strengthens our claims that Temporal Intelligence is in fact a new intelligence is the research findings published by Science Update(May 4, 2007 ).

According to this article, 'each day, a master clock in the brain synchronizes the timing of lesser clocks in cells throughout the body to the rising and setting of the sun, regulating such daily rhythms as sleep, body temperature, eating, and activity'.

Scientists locate this master clock in the brain's hypothalamus.

For more information, connect to (<http://www.nimh.nih.gov/science-news/2007/cell-networking-keeps-brains-master-clock-ticking.shtml> )

#### 2 Susceptibility to encoding in a symbol system

This criterion is respected because Time can be and is encoded in a symbol system. The drawings and shapes in old clocks, numbers in today's ones represent the corresponding symbols.

#### 3 The existence of idiot savants, prodigies and other exceptional individuals

Mastering this intelligence does not require university studies or special training. There are people who have never been to school but possess high level of this intelligence.

Other Intelligences, we believe, dwell in the attributes of God in Islam. According to this religion, God possesses 99 names. They are called ASMÂ ALLÂH UL HUSNÂ. Scholars translated UL HUSNÂ as ' the most beautiful'. This translation seems to us incomplete and inappropriate since it does not convey the true message

and meaning these NAMES hold. They are attributes and perfect qualities that God in Islam possesses and which humans should adhere to in order to solve their daily life problems and lead a 'perfect life'.

Allah in the Quran says:

"He is Allah, The Creator, the Originator, The Fashioner, to Him belong the most beautiful names: whatever is in the heavens and on earth, do declare His praises and glory. And He is the Exalted in Might, The Wise. (Quran 59:24)

"The most beautiful names belong to God: so call on Him by Them;..." (7:180)

Prophet Muhammad (peace be upon him) said: 'To God belongs 99 names, 100 minus 1, anyone who memorizes them will enter Paradise ...'... Boukhari

It is a pity, though we are in the twenty first century, the meaning

is translated as memorize (see the above English translation). has a deeper

meaning. Only very learned people can decode its meaning in its context. The participation of specialists in all domains of Sciences (in neurology, linguistics, ethnography, brain research and so on) is a BIG MUST to unlock the mystery surrounding this word along with the attributes of God (Allah) in Islam . Furthermore, the importance of understanding the true meaning of Allah's names is

conveyed in the saying by Malek bin Dinar , quoted in Elhilia by Abu Naim (no date) :

"The dead left this life without tasting its sweetest taste." "What is it?" his companions asked." "The knowledge of Allah" he replied.

The Arabic version of the above quote is:

a :

a " :

.(358/2)

" \_\_\_\_\_ :

If we look up the word UL HUSNÂ in 'El Kamous El Djadid' (1991) dictionary, we find that its meaning is HUSN EL AKIBA., not 'Most Beautiful', as translated in literature (even in the holy Quran). HUSN EL AKIBA is an output which means good results, and this Akiba is the fruit of an effort and ability we might call intelligence. Hence, ASMÂ ALLÂH UL HUSNÂ are qualities and abilities which when respected, help man solve his daily problems. This is why they are INTELLIGENCES and we believe calling them Allah's Smart Names would be very appropriate. The use of 'Most Beautiful Names' is misleading for those who want to understand Islam.

Referring to Allah's names as Intelligences involves us in a great challenge. Can we demonstrate these Intelligences by evidence of the criteria set by the scientist Gardner? For some, yes but others, the cooperation of specialists in Neurology and Brain research is necessary. (We hope we can get in touch with specialists in the domain and ask for their help).

Allah's names which convey the meaning of ability, capacity or intelligence are exhibited as follows:

Arabic name of Allah	Meaning	Intelligence
AL-KHALIQ	The Creator	Creativity
AL-MUBDI	The Originator	Originality
AL-QADIR	The Able	Ability

All the others, we believe, do answer Gardner's criteria, and we feel it takes a whole research work to discover their true meaning.

The complete list of Allah's names along with their English meaning is exhibited below. However, we must note that it is not possible to perfectly translate the names and attributes of Allah from their original Arabic into English. We suggest only close explanations. When we say close, we do mean it.

1. Allah He who has the Godhood which is the power to create the entities.
2. Ar-Rahmaan The Compassionate, The Beneficent, The One who has plenty of mercy for the believers and the blasphemers in this world and especially for the believers in the hereafter.
3. Ar-Raheem The Merciful, The One who has plenty of mercy for the believers.
4. Al-Malik The King, The Sovereign Lord, The One with the complete Dominion, the One Whose Dominion is clear from imperfection.
5. Al-Quddoos The Holy, The One who is pure from any imperfection and clear from children and adversaries.
6. As-Salaam The Source of Peace, The One who is free from every imperfection.

7. Al-Mu'min Guardian of Faith, The One who witnessed for Himself that no one is God but Him. And He witnessed for His believers that they are truthful in their belief that no one is God but Him.
8. Al-Muhaimin The Protector, The One who witnesses the saying and deeds of His creatures.
9. Al-^Azeez The Mighty, The Strong, The Defeater who is not defeated.
10. Al-Jabbaar The Compeller, The One that nothing happens in His Dominion except that which He willed.
11. Al-Mutakabbir The Majestic, The One who is clear from the attributes of the creatures and from resembling them.
12. Al-Khaaliq The Creator, The One who brings everything from non-existence to existence.
13. Al-Bari' The Evolver, The Maker, The Creator who has the Power to turn the entities.
14. Al-Musawwir The Fashioner, The One who forms His creatures in different pictures.
15. Al-Ghaffaar The Great Forgiver, The Forgiver, The One who forgives the sins of His slaves time and time again.
16. Al-Qahhaar The Subduer, The Dominant, The One who has the perfect Power and is not unable over anything.
17. Al-Wahhaab The Bestower, The One who is Generous in giving plenty without any return. He is everything that benefits whether Halal or Haram.
18. Al-Razzaaq The Sustainer, The Provider.

19. Al-Fattaah The Opener, The Reliever, The Judge, The One who opens for His slaves the closed worldly and religious matters.
20. Al-^Aleem The All-knowing, The Knowledgeable; The One nothing is absent from His knowledge.
21. Al-Qaabid The Constrictor, The Retainer, The Withholder, The One who constricts the sustenance by His wisdom and expands and widens it with His Generosity and Mercy.
22. Al-Baasit The Expander, The Englarger, The One who constricts the sustenance by His wisdom and expands and widens it with His Generosity and Mercy.
23. Al-Khaafid The Abaser, The One who lowers whoever He willed by His Destruction and raises whoever He willed by His Endowment.
24. Ar-Raafi^ The Exalter, The Elevator, The One who lowers whoever He willed by His Destruction and raises whoever He willed by His Endowment.
25. Al-Mu^iz The Honorer, He gives esteem to whoever He willed, hence there is no one to degrade Him; And He degrades whoever He willed, hence there is no one to give Him esteem.
26. Al-Muthil The Dishonorer, The Humiliator, He gives esteem to whoever He willed, hence there is no one to degrade Him; And He degrades whoever He willed, hence there is no one to give Him esteem.
27. As-Samee^ The All-Hearing, The Hearer, The One who Hears all things that are heard by His Eternal Hearing without an ear, instrument or organ.



28. Al-Baseer The All-Seeing, The One who Sees all things that are seen by His Eternal Seeing without a pupil or any other instrument.
29. Al-Hakam The Judge, He is the Ruler and His judgment is His Word.
30. Al-^Adl The Just, The One who is entitled to do what He does.
31. Al-Lateef The Subtle One, The Gracious, The One who is kind to His slaves and endows upon them.
32. Al-Khabeer The Aware, The One who knows the truth of things.
33. Al-Haleem The Forebearing, The Clement, The One who delays the punishment for those who deserve it and then He might forgive them.
34. Al-^Azeem The Great One, The Mighty, The One deserving the attributes of Exaltment, Glory, Extolment, and Purity from all imperfection.
35. Al-Ghafoor The All-Forgiving, The Forgiving, The One who forgives a lot.
36. Ash-Shakoor The Grateful, The Appreciative, The One who gives a lot of reward for a little obedience.
37. Al-^Aliyy The Most High, The Sublime, The One who is clear from the attributes of the creatures.
38. Al-Kabeer The Most Great, The Great, The One who is greater than everything in status.
39. Al-Hafeez The Preserver, The Protector, The One who protects whatever and whoever He willed to protect.
40. Al-Muqet The Maintainer, The Guardian, The Feeder, The Sustainer, The One who has the Power.
41. Al-Haseeb The Reckoner, The One who gives the satisfaction.

42. Aj-Jaleel The Sublime One, The Beneficent, The One who is attributed with greatness of Power and Glory of status.
43. Al-Kareem The Generous One, The Bountiful, The Gracious, The One who is attributed with greatness of Power and Glory of status.
44. Ar-Raqeeb The Watcher, The Watchful, The One that nothing is absent from Him. Hence it's meaning is related to the attribute of Knowledge.
45. Al-Mujeeb The Responsive, The Harkener, The One who answers the one in need if he asks Him and rescues the yearner if he calls upon Him.
46. Al-Wasi^ The Vast, The All-Embracing, The Knowledgeable.
47. Al-Hakeem The Wise, The Judge of Judges, The One who is correct in His doings.
48. Al-Wadood The Loving, The One who loves His believing slaves and His believing slaves love Him. His love to His slaves is His Will to be merciful to them and praise them:Hence it's meaning is related to the attributes of the Will and Kalam (His attribute with which He orders and forbids and spoke to Muhammad and Musa -peace be upon them-. It is not a sound nor a language nor a letter.).
49. Al-Majeed The Most Glorious One, The Glorious, The One who is with perfect Power, High Status, Compassion, Generosity and Kindness.
50. Al-Ba^ith The Reserrector, The Raiser (from death), The One who resurrects His slaves after death for reward and/or punishment.
51. Ash-Shaheed The Witness, The One who nothing is absent from Him.
52. Al-Haqq The Truth, The True, The One who truly exists.

53. Al-Wakeel The Trustee, The One who gives the satisfaction and is relied upon.
54. Al-Qawiyy The Most Strong, The Strong, The One with the complete Power.
55. Al-Mateen The Firm One, The One with extreme Power which is uninterrupted and He does not get tired.
56. Al-Waliyy The Protecting Friend, The Supporter.
57. Al-Hameed The Praiseworthy, The praised One who deserves to be praised.
58. Al-Muhsee The Counter, The Reckoner, The One who the count of things are known to him.
59. Al-Mubdi' The Originator, The One who started the human being.  
That is, He created him.
60. Al-Mu<sup>h</sup>eed The Reproducer, The One who brings back the creatures after death.
61. Al-Muhyi The Restorer, The Giver of Life, The One who took out a living human from semen that does not have a soul. He gives life by giving the souls back to the worn out bodies on the resurrection day and He makes the hearts alive by the light of knowledge.
62. Al-Mumeet The Creator of Death, The Destroyer, The One who renders the living dead.
63. Al-Hayy The Alive, The One attributed with a life that is unlike our life and is not that of a combination of soul, flesh or blood.
64. Al-Qayyoom The Self-Subsisting, The One who remains and does not end.

65. Al-Waajid The Perceiver, The Finder, The Rich who is never poor.  
Al-Wajd is Richness.
66. Al-Waahid The Unique, The One, The One without a partner.
67. Al-Ahad The One.
68. As-Samad The Eternal, The Independent, The Master who is relied upon in matters and reverted to in ones needs.
69. Al-Qaadir The Able, The Capable, The One attributed with Power.
70. Al-Muqtadir The Powerful, The Dominant, The One with the perfect Power that nothing is withheld from Him.
71. Al-Muqaddim The Expediter, The Promoter, The One who puts things in their right places. He makes ahead what He wills and delays what He wills.
72. Al-Mu'akh-khir The Delayer, the Retarder, The One who puts things in their right places. He makes ahead what He wills and delays what He wills.
73. Al-'Awwal The First, The One whose Existence is without a beginning.
74. Al-'Akhir The Last, The One whose Existence is without an end.
75. Az-Zaahir The Manifest, The One that nothing is above Him and nothing is underneath Him; hence He exists without a place. He, The Exalted, His Existence is obvious by proofs and He is clear from the delusions of attributes of bodies.
76. Al-Baatin The Hidden, The One that nothing is above Him and nothing is underneath Him, hence He exists without a place. He, The Exalted, His Existence is obvious by proofs and He is clear from the delusions of attributes of bodies.

77. Al-Walee The Governor, The One who owns things and manages them.
78. Al-Muta<sup>^</sup>ali The Most Exalted, The High Exalted, The One who is clear from the attributes of the creation.
79. Al-Barr The Source of All Goodness, The Righteous, The One who is kind to His creatures, who covered them with His sustenance and specified whoever He willed among them by His support, protection, and special mercy.
80. At-Tawwaab The Acceptor of Repentance, The Relenting, The One who grants repentance to whoever He willed among His creatures and accepts his repentance.
81. Al-Muntaqim The Avenger, The One who victoriously prevails over His enemies and punishes them for their sins. It may mean the One who destroys them.
82. Al-<sup>^</sup>Afuww The Pardoner, The Forgiver, The One with wide forgiveness.
83. Ar-Ra'uf The Compassionate, The One with extreme Mercy. The Mercy of Allah is His will to endow upon whoever He willed among His creatures.
84. Malik Al-Mulk The Eternal Owner of Sovereignty, The One who controls the Dominion and gives dominion to whoever He willed.
85. Thul-Jalali wal-Ikram The Lord of Majesty and Bounty, The One who deserves to be Exalted and not denied.
86. Al-Muqsit The Equitable, The One who is Just in His judgment.
87. Aj-Jaami<sup>^</sup> The Gatherer, The One who gathers the creatures on a day that there is no doubt about, that is the Day of Judgment.

88. Al-Ghaniyy The Self-Sufficient, The One who does not need the creation.
89. Al-Mughni The Enricher, The One who satisfies the necessities of the creatures.
90. Al-Maani^ The Preventer, The Withholder.
91. Ad-Daarr The Distresser, The One who makes harm reach to whoever He willed and benefit to whoever He willed.
92. An-Nafi^ The Propitious, The One who makes harm reach to whoever He willed and benefit to whoever He willed.
93. An-Noor The Light, The One who guides.
94. Al-Haadi The Guide, The One whom with His Guidance His believers were guided, and with His Guidance the living beings have been guided to what is beneficial for them and protected from what is harmful to them.
95. Al-Badi^ The Incomparable, The One who created the creation and formed it without any preceding example.
96. Al-Baaqi The Everlasting, The One that the state of non-existence is impossible for Him.
97. Al-Waarith The Supreme Inheritor, The Heir, The One whose Existence remains.
98. Ar-Rasheed The Guide to the Right Path, The One who guides.
99. As-Saboore The Patient, The One who does not quickly punish the sinners.

These names, we believe, constitute a new raw material which (though they appeared hundreds of years ago), if decoded and applied appropriately, will

revolutionize the world of education. . Their hidden secrets can be unveiled only by the cooperation of savants, true savants, believers and non-believers. This is what is referred to, we believe, in the holy Quran (35: 28):

"And so amongst men and crawling creatures and cattle, are they of various colours. Those truly fear Allah, among His Servants, who have knowledge...." (English version)

"Il y a pareillement des couleurs différentes, parmi les hommes, les animaux et les bestiaux. Parmi Ses serviteurs, seuls les savants craignent Allah. Allah est, certes, Puissant et Pardonneur." (French version)

#### NOTE

There are many versions of the 99 names of Allah in Islam. A careful and specialized study is necessary to bring them closer to their true Arabic meaning. Being a religion chauvinist would never solve the problem. One should approach this topic scientifically and be equipped with the necessary scientific tools to do the job. This is why, as cited before, the participation of all savants is not only a necessity but a MUST. Still, one is strongly recommended to read and search the Bible and the Torah, since they emanate from one same source. These two holy books might contain elements related to our research topic: multiple intelligences. One has but to tackle them using a scientific method. Religion chauvinism is but a big obstacle that discourages scientific research. This obstacle might turn positive if we see it as a

steep climb towards scientific discoveries. We hope that the suggestions we have provided in this section, will spur further research and application of ASMA<sup>ALLÂH UL HUSNÂ</sup> to literary issues.

One of Gardner's research associates and pioneers of MI theory, Armstrong (Thomas Armstrong, Ph.D. is an award-winning author and speaker with over thirty years of teaching experience from the primary through the doctoral level, and over one million copies of his books in print on issues related to learning and human development) asked us in an email :

My biggest question is how MI theory – which is a theory based upon pluralism or the idea that there are many truths or ways of knowing – can be accepted by a culture that is based on one truth (e.g. in the Verse of the Throne (Ayat al kursi): “Allah! There is no god but He”). Are there particular verses in the Qur’ran that give validation to the use of an approach like multiple intelligences?"

Our reply to Armstrong consisted of this very chapter. After reading it, he wrote:

Thank you so much for sending me the information about your dissertation and the accompanying citations. I'm reading your chapter with interest. Your idea of thinking about multiple intelligences in relation to the multiple (99) names of Allah is very interesting to me.



## Conclusion

The ingrained traditional views of intelligence as a singular, fixed capacity determined at birth have resulted in a wide spread acceptance of IQ testing as a valid measure of intelligence. Intelligence tests developed by French psychologist Alfred Binet and his colleague Theodore Simon, have become a generalized measure of intellectual ability. The Theory of Multiple Intelligences, hereafter referred to as MI theory, emerged to offer a new alternative and a dynamic approach: it suggests that intelligence is a plurality of capacities, not a general capacity, referred to as *g*, and that everyone has varying degrees of strengths in the eight different intelligences. Researchers, like Gardner (1983) are exploring a multifaceted model of intelligence. If Gardner was able to question the traditional view of general intelligence and impose his multiple intelligences view, it is because he made extensive use of biology, cross-cultural anthropology, developmental psychology, and neuropsychology. His understanding of brain research made him propose that if *g* was the governing principle of brain function, child prodigies ought to excel in all abilities; and autistic savants or stroke victims would have weak capacities in all areas (Gardner, 1983). Rather than considering but mental tests, Gardner's goal is to substitute these standardized tests with more sensitive ways of assessment that reflect an individual's natural and acquired capacities. In sum, Gardner is looking at intelligence as a psychobiological capacity to solve problems in a cultural context. It should prove effective inside and outside of the school context.

In order to give the reader a time for reflexion, we suggest the following drawing which shows the human brain and the functions of its different parts. One has just to observe and locate Gardner's Multiple Intelligences. The drawing is self-explanatory.

## Anatomy of the Human Brain

Retrieved from: <http://www.whyevolution.com/brain.gif>

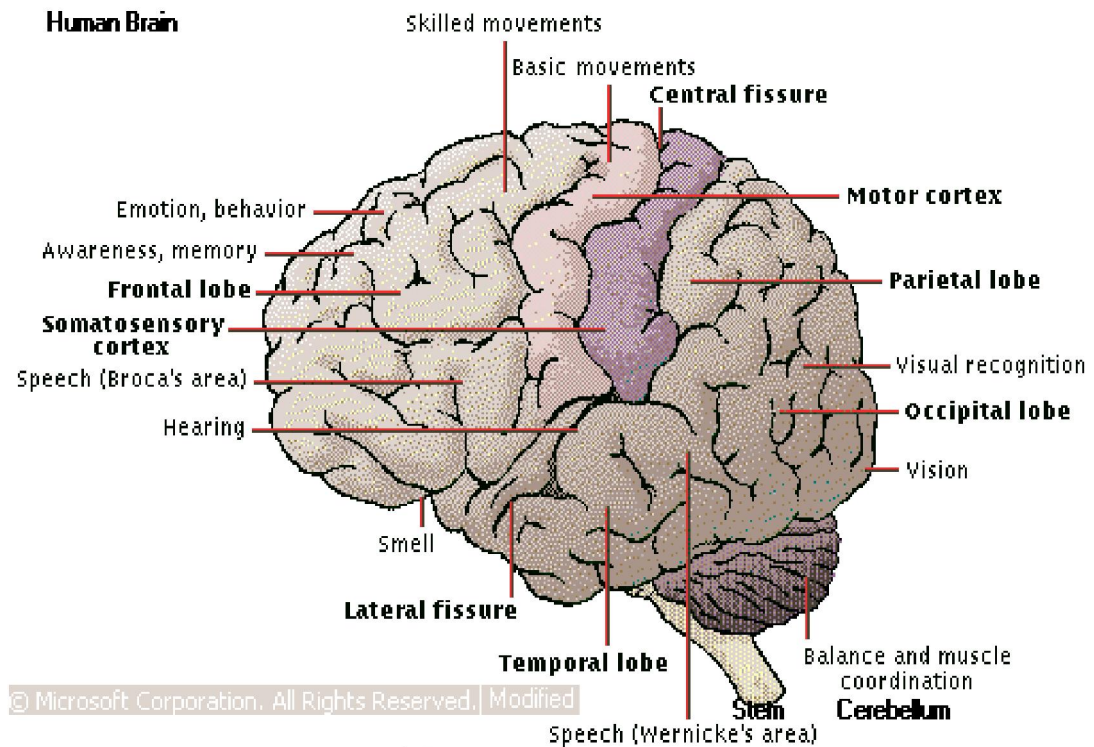


Figure 10 Anatomy of the Brain

## Chapter Three

## Implementing MI in the EFL classroom

## Introduction

Insight into Multiple intelligences can reflate and rekindle the teacher's interest in experimentation. We mean by this, the willingness to respond efficiently and flexibly to the students, and accommodate their diverse needs. Such willingness when translated into acts could provide the impetus to nudge the students and the teachers themselves out of whatever rut they may have fallen into. Urgent is this impetus in the Algerian situation, where everybody is lost (it is our opinion); teachers and students alike are showing dwindling motivation levels. They feel passive and superseded because of the system which is neither challenging nor stretching.

Doubtlessly, learning takes place best when it is individually oriented. Such individualization is going to meet the particular needs and interests of each student, make instruction personal and allow students to retain what they have learned. Assessment is bound to be positive and successful for both the learner and the teacher. Carol Ann Tomlinson (2005: 31-34) in her article entitled *The Differentiated Classroom: Responding to the Needs of All Learners*, reflects the benefits and the roles of a teacher applying MI in a differentiated classroom:

- The teacher appreciates each child as an individual.
- The teacher remembers to teach whole children.
- The teacher continues to develop expertise.
- The teacher links students and ideas.

- The teacher strives for joyful learning.
- The teacher offers high expectations—and lots of ladders.
- The teacher helps students make their own sense of ideas.
- The teacher shares the teaching with students.
- The teacher clearly strives for student independence.
- The teacher uses positive energy and humor.
- And finally, the teacher has created the time and space in which to invite students to step beyond where any teacher can bring them, to the places where they explore, invent, and interpret in new ways, which they, then , teach in return.

Because Multiple Intelligences Theory encourages development of a multitude of paths of instruction for students and ensures better academic results, implementing them in the EFL class is for us the first step towards innovation and success.

### 3.1 Making students aware of Multiple Intelligences

For a novice teacher, we believe, the best way to diagnose students' intelligences is to use an inventory. Inventories are not "mega-tests" but they can provide a fairly comprehensive survey of the students' multiple intelligences. For an expert, inventories come to strengthen what Armstrong (2000) calls, the readily available tool to all of us: simple observation. He asserts that in order to identify students' most highly developed intelligences is to observe the misbehaviours of the students in class. According to him, the student with a strong linguistic intelligence often talks out of turn. The spatial student doodles and daydreams. The interpersonal student socializes. The bodily kinesthetic is usually fidgeting. The naturalistically engaged student might bring with him an animal to class defying school regulations. (Describes my case; when a pupil, I used to bring pigeons with me to class in spite of

the punishments I used to get). Such misbehaviours, for us, are not true misbehaviours. They are signs saying to the teacher: "This is how I learn, teacher, and if you don't teach me through my most natural channels, guess what? I'm going to do it anyway" (Armstrong .2000:.21). `To make his students aware of their intelligences, a teacher should first understand what these capacities entail and how they are related to learning. Armstrong (2000:.22) in the following table gives a clear summary about a student's proclivities, his way of thinking, interests and needs:

Children who are highly	Think	Love	Need
Linguistic	in words	reading, writing, telling stories, playing word games	book, stapes, writing tools, paper, diaries, dialogue, debate, stories discussion
Logical-Mathematical	by reasoning	experimenting, questioning, figuring out logical puzzles, calculating	materials to experiment with science, manipulatives, trips to the planetarium and science museums
Spatial	in images and pictures	Designing, drawing, visualizing, doodling	Art, video, movies, slides, imagination games, mazes, puzzles, illustrated books, trips to art museums
Bodily-Kinesthetic	Through somatic sensations	Dancing, running, Jumping, building, touching, gesturing	Role play, drama, movement, Things to build, sports and physical games, tactile experiences, hands-on learning
Musical	via rhythms and melodies	Singing, whistling, humming, tapping feet and hands, listening	Sing-along time, trips to concerts, music playing at home and school ,musical instruments

Interpersonal	by bouncing ideas off other people	leading, organizing, relating, manipulating, mediating, partying	friends, group games ,social gatherings, community events, clubs, mentors/apprenticeships
Intrapersonal	in relation to their needs, feelings and Goals	setting goals, mediating, dreaming, planning, reflecting	secret places, time alone, self-paced projects, choices
Naturalist	through nature and natural forms	Playing with pets, gardening, nvestigating gating nature, raising animals, caring for planet earth	access to nature, opportunities for interacting with animals, tools for investigating nature (e.g., magnifying glass , binoculars)

Table 13 Eight Ways of Learning

Once knowing the different ways of learning, the teacher can move with steady steps towards diagnosing his students' intelligences using adequate inventories. In this respect, we propose the following inventories which might be of great help to teachers and educators when establishing the students' multiple intelligences.

### MI Inventory for Adults

Downloaded from: <http://www.drexel.edu/dclae/academicresources/mi/armstrong.asp>

PART A: Check ( / ) each statement that applies to you. Write the total checks for each section in the space provided.

Verbal-Linguistic Intelligence

TOTAL: \_\_\_\_\_

\_\_\_ Books are very important to me.



- \_\_\_ I can hear words in my head before I read, speak, or write them down.
- \_\_\_ I get more out of listening to the radio or a spoken-word cassette than I do from television or films.
- \_\_\_ I enjoy word games like Scrabble, Anagrams, or Password.
- \_\_\_ I enjoy entertaining myself or others with tongue twisters, nonsense rhymes, or puns.
- \_\_\_ Other people sometimes have to stop and ask me to explain the meaning of the words I use in my writing and speaking.
- \_\_\_ English, social studies, and history were easier for me in school than math and science.
- \_\_\_ When I drive down a freeway, I pay more attention to the words written on billboards than to the scenery.
- \_\_\_ My conversations includes frequent references to things that I've read or heard.
- \_\_\_ I've written something recently that I was particularly proud of or that earned me recognition from others.

Logical-Mathematical Intelligence

TOTAL: \_\_\_\_

- \_\_\_ I can easily compute numbers in my head.
- \_\_\_ Math and/or science were among my favorite subjects in school.
- \_\_\_ I enjoy playing games or solving brainteasers that require logical thinking.
- \_\_\_ I like to set up little "what if" experiments (for example, "What if I double the amount of water I give to my rosebush each week?")
- \_\_\_ My mind searches for patterns, regularities, or logical sequences in things.
- \_\_\_ I'm interested in new developments in science.
- \_\_\_ I believe that almost everything has a rational explanation.
- \_\_\_ I sometimes think in clear, abstract, wordless, imageless concepts.
- \_\_\_ I like finding logical flaws in things that people say and do at home and work.
- \_\_\_ I feel more comfortable when something has been measured, categorized, analyzed, or quantified in some way.

Visual-Spatial Intelligence

TOTAL: \_\_\_\_

- \_\_\_ I often see clear visual images when I close my eyes.

- ☐ I'm sensitive to color.
- ☐ I frequently use a camera or camcorder to record what I see around me.
- ☐ I enjoy doing jigsaw puzzles, mazes, and other visual puzzles.
- ☐ I have vivid dreams at night.
- ☐ I can generally find my way around unfamiliar territory.
- ☐ I like to draw or doodle.
- ☐ Geometry was easier for me than algebra in school.
- ☐ I can comfortably imagine how something might appear if it were looked down upon from directly above in a bird's-eye view.
- ☐ I prefer looking at reading material that is heavily illustrated.

Bodily-Kinesthetic Intelligence

TOTAL: \_\_\_\_\_

- ☐ I engage in at least one sport or physical activity on a regular basis.
- ☐ I find it difficult to sit still for long periods of time
- ☐ I like working with my hands at concrete activities such as sewing, weaving, carving, carpentry, or model building.
- ☐ My best ideas often come to me when I'm out for a long walk or jog, or when I'm engaging in some other kind of physical activity.
- ☐ I often like to spend my free time outdoors.
- ☐ I frequently use hand gestures or other forms of body language when conversing with someone.
- ☐ I need to touch things in order to learn more about them.
- ☐ I enjoy daredevil amusement rides or similar thrilling physical experiences.
- ☐ I would describe myself as well coordinated.
- ☐ I need to practice a new skill rather than simply reading about it or seeing a video that describes it.

Musical Intelligence

TOTAL: \_\_\_\_\_

- ☐ I have a pleasant singing voice.
- ☐ I can tell when a musical note is off-key.
- ☐ I frequently listen to music on radio, records, cassettes, or compact discs.
- ☐ I play a musical instrument.





- \_\_\_ My life would be poorer if there were no music in it.
- \_\_\_ I sometimes catch myself walking down the street with a television jingle or other tune running through my mind.
- \_\_\_ I can easily keep time to a piece of music with a simple percussion instrument.
- \_\_\_ I know the tunes to many different songs or musical pieces.
- \_\_\_ If I hear a musical selection once or twice, I am usually able to sing it back fairly accurately.
- \_\_\_ I often make tapping sounds or sing little melodies while working, studying, or learning something new.

Interpersonal Intelligence

TOTAL: \_\_\_\_

- \_\_\_ I'm the sort of person that people come to for advice and counsel at work or in my neighborhood.
- \_\_\_ I prefer group sports like badminton, volleyball, or softball to solo sports such as swimming and jogging.
- \_\_\_ When I have a problem, I'm more likely to seek out another person for help than attempt to work it out on my own.
- \_\_\_ I have at least three close friends.
- \_\_\_ I favor social pastimes such as Monopoly or bridge over individual recreations such as video games and solitaire.
- \_\_\_ I enjoy the challenge of teaching another person, or groups of people, what I know how to do.
- \_\_\_ I consider myself a leader (or others have called me that).
- \_\_\_ I feel comfortable in the midst of a crowd.
- \_\_\_ I like to get involved in social activities connected with my work, church, or community.
- \_\_\_ I would rather spend my evenings at a lively party than stay at home alone.

Intrapersonal Intelligence

TOTAL: \_\_\_\_

- \_\_\_ I regularly spend time alone meditating, reflecting, or thinking about important life questions.
- \_\_\_ I have attended counseling sessions or personal growth seminars to learn more about myself.



- \_\_\_ I am able to respond to setbacks with resilience.
- \_\_\_ I have a special hobby or interest that I keep pretty much to myself.
- \_\_\_ I have some important goals for my life that I think about on a regular basis.
- \_\_\_ I have a realistic view of my strengths and weaknesses (borne out by feedback from other sources).
- \_\_\_ I would prefer to spend a weekend alone in a cabin in the woods rather than at a Fancy resort with lots of people around.
- \_\_\_ I consider myself to be strong willed or independent minded.
- \_\_\_ I keep a personal diary or journal to record the events of my inner life.
- \_\_\_ I am self-employed or have at least thought seriously about starting my own business.

Naturalist Intelligence

TOTAL: \_\_\_\_

- \_\_\_ I like to spend time backpacking, hiking, or just walking in nature.
- \_\_\_ I belong to some kind of volunteer organization related to nature (e.g., Sierra Club), and I'm concerned about helping to save nature from further destruction.
- \_\_\_ I thrive on having animals around the house.
- \_\_\_ I'm involved in a hobby that involves nature in some way (e.g., bird watching).
- \_\_\_ I've enrolled in courses relating to nature at community centers or colleges (e.g., botany, zoology).
- \_\_\_ I'm quite good at telling the difference between different kinds of trees, dogs, birds, or others types of flora or fauna.
- \_\_\_ I like to read books and magazines, or watch television shows or movies that feature nature in some way.
- \_\_\_ When on vacation, I prefer to go off to a natural setting (park, campground, hiking trail) rather than to a hotel/resort or city/cultural location.
- \_\_\_ I love to visit zoos, aquariums, or other places where the natural world is studied.
- \_\_\_ I have a garden and enjoy working regularly in it.

PART B: Now create a bar graph by plotting your totals below:

(Students may ask the help of a teacher to create the bar graph)

10								
09								
08								
07								
06								
05								
04								
03								
02								
01								
Intelligence	Verbal-Lin-guistic	Logical Mathe-matical	Visual Spatial	Kines-thetic	Musical	Inter-personal	Intra-Personal	Naturalist

For pupils in primary schools or middle schools we suggest the following survey:

### Multiple Intelligences Survey Grades 4 – 8

Check (x) each statement that applies to you.

Verbal / Linguistic Intelligence

TOTAL = \_\_\_\_\_

\_\_\_\_\_ I love books.

\_\_\_\_\_ I hear words in my head, before I read, speak, or write them down.

\_\_\_\_\_ I am good at word games, like Scrabble or Password.

\_\_\_\_\_ I enjoy playing tongue twisters, rhymes, or puns with my friends.

\_\_\_\_\_ English, social studies, and history are my best subjects.

\_\_\_\_\_ I like to show off what I write.

Logical / Mathematical Intelligence

TOTAL = \_\_\_\_\_

- \_\_\_\_\_ I can add and subtract in my head.
- \_\_\_\_\_ Math and/or science is my favorite subject.
- \_\_\_\_\_ I enjoy brainteasers.
- \_\_\_\_\_ I like patterns.
- \_\_\_\_\_ I like to find out about new things in science.
- \_\_\_\_\_ I like things that are logical.

Visual / Spatial Intelligence

TOTAL = \_\_\_\_\_

- \_\_\_\_\_ I often see pictures when I close my eyes.
- \_\_\_\_\_ I am sensitive to color.
- \_\_\_\_\_ I enjoy doing jigsaw puzzles.
- \_\_\_\_\_ I like to draw or doodle.
- \_\_\_\_\_ I can easily imagine how something might look from overhead.
- \_\_\_\_\_ I prefer to read when there are pictures.

Bodily / Kinesthetic Intelligence

TOTAL = \_\_\_\_\_

- \_\_\_\_\_ I play at least one sport or physical activity on a regular basis.
- \_\_\_\_\_ I like working with my hands to build or make things (like carpentry, model-building, sewing, weaving).
- \_\_\_\_\_ I like to spend my free time outdoors.
- \_\_\_\_\_ I enjoy amusement rides and other thrilling experiences.
- \_\_\_\_\_ I am well coordinated.
- \_\_\_\_\_ I need to practice a new skill not just read about it or see a video about it.

Musical / Rhythmic Intelligence

TOTAL = \_\_\_\_\_

- \_\_\_\_\_ I like to sing and/or have a pleasant singing voice.
- \_\_\_\_\_ I play a musical instrument.
- \_\_\_\_\_ My life would not be good without music.



\_\_\_ I can keep time to music.

\_\_\_ I know the tunes to many different songs and musical pieces.

\_\_\_ If I hear a song a couple times, I can usually sing it fairly well.

Interpersonal Intelligence

TOTAL = \_\_\_\_

\_\_\_ I am the sort of person that others come to talk to when they have a problem.

\_\_\_ I prefer group sports (like softball) rather than individual sports (like swimming).

\_\_\_ I like group games like Monopoly better than playing alone.

\_\_\_ I enjoy teaching others.

\_\_\_ I consider myself a leader, and others have called me a leader.

\_\_\_ I like to get involved in social activities at my school, mosque, or community.

Intrapersonal Intelligence

TOTAL = \_\_\_\_

\_\_\_ I like to spend time alone.

\_\_\_ I have opinions that are different than others'.

\_\_\_ I have a special hobby or interest that I like to do alone.

\_\_\_ I have some important goals for my life.

\_\_\_ I consider myself to be independent minded or strong willed.

\_\_\_ I keep a personal diary / journal to write down my thoughts or feelings about life.

Naturalist

TOTAL = \_\_\_\_

\_\_\_ I have a garden and/or like to work outdoors.

\_\_\_ I really like to go backpacking and hiking.

\_\_\_ I enjoy having different animals around the house (in addition to a dog or cat).

\_\_\_ I have a hobby that involves nature.

\_\_\_ I like to visit zoos, nature centers, or places with displays about the natural world.

\_\_\_ It is easy for me to tell the differences between different plants and animals.

Areas of Strength (4 or more checks in any of the areas listed above):

(From the internet: © Marjorie Hall Haley, PhD – GMU 2003)

## 4.2 Teaching Strategies Based on Multiple Intelligences

The multidimensionality of multiple intelligences allows a wide variety of teaching strategies and fosters the teacher to develop new ones to fit any new educational scene. Because students have different proclivities, a broad range of teaching strategies is necessary to achieve satisfactory results. Such a wide range of teaching strategies will involve the students' most highly developed intelligences in learning.

### 4.2.1 Teaching Strategies for Linguistic Intelligence

Because Linguistic Intelligence has been used for decades, teachers were used to applying a variety of teaching strategies which, most of the time, responded to the needs of both the teacher and the learner. These strategies relied so much on textbooks, worksheets and lectures. Armstrong (2000), states that involving new strategies to enhance this intelligence is a necessity because the traditional ones have been overused. He suggested the following:

- Story telling

Story telling is to be considered as a vital teaching tool since it has been part of our cultures for thousands of years. It was a means of conveying knowledge and developing intelligence in humanity. Using them in class enables the teacher to weave 'essential ideas, concepts and instructional goals into a story ' directly told to students. The teacher's role here is to include the essential elements (language exponents) of the lesson in the story and present it to students. Such strategy sustains interest because it brings not only outputs

though entertainment, but gets students impressed by their teacher's willingness to innovate and create.

- Brainstorming

Vygotsky (quoted in Armstrong 2000) once claimed that a thought is like a cloud shedding a shower of words. Brainstorming is like this cloud, where students produce a lot of thoughts which when collected and put on the chalkboard, gives a clearer idea of the topic being discussed. The general rule of brainstorming is setting students to share whatever comes to their mind that is relevant to the topic under study. The ideas are placed on the board at random. After every student has been given the opportunity to share, students reflect and organize the ideas, and use them in a specific task or project. This strategy encourages original thoughts and creativity.

- Tape

#### Recording

The Making use of the tape recorder results in very satisfactory results. This device is a valuable learning tool, since it offers students an efficient medium through which to learn a foreign language. It helps them develop their linguistic powers and verbal communication skills. When using it for listening, learners, especially where English is learned as a foreign language (as in Algeria), improve their pronunciation and master the phonological system of the target language. When using it as a recorder, students "talk out aloud" and come back to what they said, to revise and correct whatever was recorded. Recording also, gives the students an opportunity to express their inner feelings in a safe and non-threatening environment. We believe a language lab would be a perfect learning tool if appropriately used.

- Journal Writing

A journal in this context, allows students to make ongoing written records related to a given topic. Recording here will be purposeful, not just for the sake of writing. It can be fully private, shared only by the student and his teacher. If the journal holder is willing to share what he wrote with his peers, the teacher allows him to read it to the class. Furthermore, students might incorporate multiple intelligences in their journal. They can put drawings, photos, dialogues and any other nonverbal data.

- Publishing

Writing in class has become a painful experience. Students complete papers and hand them to the teacher, who, in his turn, grades and gives them back to the students. Students very often throw these papers away. A very dreary process has become writing. MI's message concerning writing is different: it is a tool whose role is communicating and influencing people. MI urges teachers to create word-processing programs, school newspapers or magazines where students can have their work published. When students find that their work is exhibited to a wide audience, discussed and argued, they get motivated to do better and become linguistically empowered. Nowadays, a school website is necessary to develop school learning in all its aspects.

#### 4.2.2 Teaching Strategies for Logical-Mathematical Intelligence

Today logical-mathematical thinking is not restricted to math and science. It has affected social sciences and humanities as well. The teaching strategies for developing this intelligence that can be employed in any school subject include:

- Calculations and Quantifications

MI teaches us that math belongs not just in math class. It ought to be



used in literature and related to life as well. In history and geography class, a teacher ought to focus on numbers: populations of countries, lives lost in wars (as in Iraq today or in Algeria during the 1990s). In foreign language class teachers should involve students in mathematical thinking by introducing passages which foster logic and math. Examples include: How many bees live in a hive? Distances, geometric figures in describing objects, and so forth. The same thing can be said for other school subjects.

- Classifications and Categorizing

To empower this intelligence teacher should use this strategy to involve students in ordering items and organization. Getting students used to putting data into a rational framework does stimulate this thinking and ensures better results in any subject. In the EFL class, in a unit dealing with describing places, students might brainstorm a random list of geographic cities in England, then classify them by type of location and put them appropriately on a map. In science, students might classify states of matter under the appropriate category: Gas, Liquid, and Solid. The value of this approach is that divergent fragments of information can be organized around a certain theme, making them subject to discussion and expansion.

- Socratic Questioning

This strategy involves teaching by asking questions to draw out answers from pupils. It is a type of leading out. The questions Socrates used to ask in order to probe rationale, reasons and evidence include:

- Why is that happening?
- How do you know this?
- Show me ... ?

- Can you give me an example of that?
- What do you think causes...?
- What is the nature of this?

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

- Science Thinking

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

#### 4.2.3 Teaching Strategies for Spatial Intelligence

Today's school very often presents information in the form of writing using the chalkboard. Such a practice is linguistic in nature and has nothing to do with spatial intelligence. Visuals as well as auditory modes are a must to satisfy the needs of the learners under this category. The following strategies, we believe, are to be included in the curriculum to activate spatial intelligence:

- Visualization

This strategy consists of involving the learners in creating "movie or TV screen" in their minds. Any information, be it verbal or non verbal should be translated into images or pictures to ensure better assimilation and recall.

Teachers are urged to make use of photos, slides drawings, and graphic symbols to enhance this intelligence.

- Creating charts, posters, graphs, or diagrams

Whenever dealing with purely linguistic information, teachers are asked to translate or set students to translate such information into charts, posters or diagrams.

- Creating a Web page or Power Point project

This strategy when mastered enables the students to the ability to represent the spatial world internally in their mind. It is going to be a difficult time at the very beginning, but turns easy and interesting afterwards.

- Making a videotape or film

Such strategy involves a special training for both the teacher and the learner. It brings the whole class to the heart of nature and links them directly to nature. Thus, instead of learning through words a given topic, students are going to touch and observe it. Learning is bound to be more beneficial.

- Making a map

Maps constitute the core of spatiality. They train the students to transform large areas/spaces into a graphic form to acquire a precise and accurate understanding of a given topic. Their appropriate use stimulates spatial intelligence in many ways.

#### 4.2.4 Teaching Strategies for Bodily/Kinesthetic intelligence

Strategies to enhance this intelligence should develop the capacity to use one's whole body to solve problems. They should include hands, fingers, arms, and feet to make or produce something. To enhance it, teachers should present information through:

- Dance or movement sequences
- Role Playing
- Physical gestures to communicate an idea
- Performing a skit or play
- Making manipulatives
- Building a model
- Making a board or floor game
- Putting together a puzzle
- Creating and/or participating in a scavenger hunt
- Performing a pantomime
- Demonstrating sports games

Such strategies are going to sustain interest and create a funny and entertaining environment conducive to true learning. They will automatically empower this type of intelligence. In our daily life, children and adults are involved in such activities, but unfortunately, educators have not thought of including them in school curricula.

#### 4.2.5 Teaching Strategies for Interpersonal Intelligence

Suitable strategies under this category are the ones which aim at turning the student into a "Socializer". These strategies should provide the learner with abilities to interact with others and interpret their behavior: perceive their moods, temperaments, motivations and intentions. Among the corresponding strategies:

- Co-operative learning for covering subject matter\*
- Interviews to gather information on a given area of study
- Role-play (a famous character to gain understanding about this character, example: playing the role of Romeo (in Shakespeare's Romeo and Juliet) to gain better understanding about Romeo himself.\*
- Group projects and discussions\*
- Reading of multicultural books and materials

Note: The points followed by (\*) have been included in the Algerian Middle School/Secondary School curricula.

#### 4.2.6 Teaching Strategies for Intrapersonal Intelligence

To develop this type of intelligence, a student must have an understanding of himself, of knowing who he is, what he can do, what he wants to do, and how to react to things. Teachers should include in their lessons the following:

- Independent projects ( in the Algerian context, emphasis is put on collective projects)
- Reading illuminating books (does not exist at the Middle /Secondary School level
- Journal-writing (keeping a journal or diary) .This strategy does exist in some Algerian schools.
- Imaginative activities and games
- Involving students' feelings about a subject
- Setting tasks which require quiet places for reflection (or creating a silent time in class for reflection)

#### 4.2.7 Teaching Strategies for Musical Intelligence

Enabling students to think in music or rhythm seems to be a difficult task. But when focusing on this approach, the result will be contrary to our previous assumptions. (We prefer using the term rhythm, because some students abhor the term music due to personal/cultural consideration). Teachers and students alike ought to develop this intelligence to achieve better academic results. The strategies a teacher should adhere to in order to empower this intelligence include:

- Writing or singing a curriculum song in the content area
- Developing and/or using rhythmic patterns as learning aids
- Changing the words to a song
- Finding song titles that help explain content
- Creating a musical game
- Identifying music that helps students study
- Using musical vocabulary as metaphors
- Creating, designing, and building a musical instrument
- Incorporating environmental sounds into a project or presentation

In short, a teacher should engage the students in rhythmic games, singing, dancing and playing musical instruments to stimulate this intelligence. Due to cultural reasons, dancing is to be avoided whenever the atmosphere is inadequate.

#### 4.2.8 Teaching Strategies for Natural Intelligence

Traditional classes today are most of the time held inside the classroom. This arrangement does not fit the students who learn best through nature. These students

feel the pain of being cut off from their favorite and valuable source of learning. MI comes with strategies to remedy the naturalist's problem and suggests the following:

- Collecting objects from the natural world
- Labeling and mounting specimens from nature
- Organizing collections
- Observing nature
- Doing experiments in nature
- Noticing changes in the environment
- Sorting articles from nature
- Categorizing objects
- Classifying information
- Keeping notebooks
- Learning names of natural phenomena
- Learning characteristics of the natural world
- Using magnifiers or microscopes to study nature
- Using binoculars or telescopes to study nature
- Drawing or photographing natural objects
- Nature hikes or field trips in nature
- Gardening
- Caring for pets
- Wildlife protection projects
- Setting up winter feeding stations for wild animals or birds
- Comparing natural observations with others
- Visiting zoos and botanical gardens
- Visiting museums of natural history

Such a menu requires from the teacher to link the school to the outside world and allow students to be on the spot, observing and touching nature.

In an article written in About.com: Education Continuing, Chambers (2009) suggested the following strategies to enhance the various intelligences:

#### Strategy 1 Posters

Objective: Activating visual/spatial, linguistic intelligences

##### Description

Besides having visually appealing images, or are brilliantly written, posters can provide learners with increased opportunities to interact with information. They can also enable learners to assimilate, access, and reinforce concepts on an ongoing basis, rather than during a single learning event, module, or class. Once created, posters can be magnified, scanned and reproduced for future use.

##### Tips

Teachers are advised to

- display posters highlighting key concepts of a subject they are teaching.
- launch a poster contest within the school to generate ideas and to ensure best practices.
- set students to create posters to explain or express concepts

#### Strategy 2 Audio Journals

Objective: Activating verbal/linguistic, intrapersonal and interpersonal intelligences

##### Description

Advances in technology have given birth to a variety of options to shift from text-based to audio-based journals. Hand-held devices along with audio software are capturing unedited thoughts, and feelings, faster and more accurately than traditional writing tools. For EFL students, recording something on a device is less intimidating than writing a journal.



### Tips

- Encourage reflective learning exercises by assigning audio-based journals.
- Record commentaries on chapters, or topics and place them on web sites and ask learners to access on.
- Encourage learners to create and post their personal ideas or commentaries on the web.

### Strategy 3 Simulations

Objective: Activating all intelligences

#### Description

Simulations suit any subject or topic and please learners with any of the intelligences. They are becoming increasingly popular because they are very dynamic and compelling. Instructional designers can depend on user-friendly authoring tools to create simulations to demonstrate the intricacies or basic principles of a computer application, or provide instructions on how to assemble a piece of equipment.

### Tips

- Encourage learners to use the following authoring tools to create simulations: CamTasia, ViewletBuilder, and RoboDemo. These tools enable the learner to edit, create animated content and publish easily. Unfortunately, most of them are often copyright. Teachers can ask help from computer sciences technicians to show them how to proceed.
- Encourage them to create their own simulations.
- Include audio files that provide learners with opportunities for reflection.

### Strategy 4 Music

Objective: Activating musical/rhythmic intelligences

### Description

Songs can evoke images, thought or memory. They can stimulate emotions and captivate audiences. When used appropriately, they add to a learning event resonance and meaning. The song, for instance, "if you're happy and you know it" can enhance many intelligences.

### Tips

- Play music while learners are completing a task or doing activities.
- Use mnemonic devices to help students organize information and assist them with comprehension or memorization.
- Download a selection of educative songs to ensure easy access when needed.

### Strategy 5 Facts/Factoids

Objective: Activating logical/mathematical intelligences

### Description

Knowing how things add up is very appreciated by learners who are strong in logical/mathematical intelligence. The Internet facilitates access to statistics on virtually every concept and do satisfy any need for numerically based explanation.

### Tips

- Use Factoids as icebreakers or energizers (e.g., how many people have home computers? What is the average age of people who use the internet in your house/town/Algeria? )
- Apply statistics on key ideas or concepts (e.g., demographics, timing, distance ranking, and weight or how many years of education does the average Canadian have?)

### Strategy 6 Natural

Objective: Activating naturalist intelligence

### Description

Thinking of ways to acknowledge naturalist intelligences brings to our minds teaching outdoors. This approach is often difficult to attain because of practical issues (especially in third world countries). But there are ways to overcome this handicap.

### Tips

- One way to empower this intelligence is to ensure that learners are getting sufficient natural light to avoid low energy negative mood.
- Teachers should use animal analogies to teach and underscore key concepts.
- Teachers are advised to project images of nature on screens while teaching and during breaks.

### STRATEGY 7 Movies

Objective: Activating all the intelligences

### Description

Like simulations, movies can animate learning content and engage a number of intelligences. In the Algerian context the situation is worse, not because of lack of these materials. It is because teachers along with the administration are not aware of their role in enhancing learning. In developed countries, integrating movies into learning curricula has increased with the emergence of online, video-on-demand services that provide access to multimedia clips and video on a wide range of topics.

### Tips

- Video viewing should never be a passive activity.
- Teachers should use the strategies which involve and engage learners, and activate learning.

### 4.3-Technology and Multiple Intelligences

Today, no one can deny the importance of technology in learning. The arrival of the computer has created a revolution in all our aspects of life. Speed, accuracy, and

efficiency have become the objective of any human endeavor. But how can multiple intelligences be enhanced with the use of technology? An answer to this question is to be found in Dee Dickinson's (<http://www.america-tomorrow.com/ati/nhl80402.htm>) following explanation:

#### 4. 3.1 Technology and Verbal-Linguistic Intelligence

In every field of knowledge, educational systems in western countries are transforming as both teachers and students learn to use multimedia technology. Through worldwide databases and computer networks students have direct access to current information. New programs allow children to write and insert graphics and drawings in a funny way. Other programs, such as Microsoft, make it possible to format writing projects in different shapes; write words in unusual forms and sizes. Such programs are highly motivating for both beginning and more accomplished writers. Such discoveries make learning personal and exciting as students make knowledge their own. The computer encourages students to revise and rewrite compositions and thus develop greater fluency and a more effective style. Some of the most popular word processing programs include Microsoft Word and Word Perfect. Furthermore, just as the computer has enhanced writing skills, so audiotape-recording, video-taping, and video-conferencing are having positive effects on oral fluency. When students observe and hear themselves speaking, they learn to express themselves effectively. Electronic technology is having an enormous impact on the development of speaking skills, as students find it possible to communicate with new friends around the country and world. In short, the remarkable new electronic tools have catalyzed information and communicating, learning, and developing intelligence in unprecedented ways. Along with what preceded, linguistic intelligence can be developed through the use of word processing programs which can help teach language, writing, editing, and rewriting skills. If connected to the internet they

become an invaluable tool in learning languages. Through e-mail, as an example, students can improve their language skills in an atmosphere that sustains interest and triggers motivation to do better.

#### 4. 3.2 -Technology and Logical-Mathematical Intelligence

Logical-Mathematical intelligence has participated a lot in developing multimedia technology. Today technology is repaying. It is offering students the opportunity to learn effectively through a variety of software programs which go beyond drills and practice and provide immediate feedback. The value of these programs is in their ability to develop higher order thinking skills essential for solving any problem. Following are a few examples of these outstanding programs: Edmark's "Millie's Mathhouse" (it costs 14 dollars) is a delightful and successful computer program that introduces number and math concepts to preschool and early elementary children. Thanks to it, children learn about numbers, shapes, sizes, patterns, and problem-solving. This program might also develop sequencing abilities and logical-mathematical thinking through visual-spatial, manipulative tasks that are thought-provoking and challenging. Logical-mathematical intelligence can be enhanced by the use of computer programs that teach logic and critical thinking skills. These programs can be found in game formats that could motivate learners, whatever the age, Math programs that allow drilling and practising. Database programs that help explore and organize data and information.

#### 4.3. 3 Technology and Kinesthetic Intelligence

Learning through technology is a highly active and interactive process when used appropriately. Computers use relies mostly on eye-hand coordination for their operation; the keyboard, the mouse or the screen require an intensive participation of the eye and fingers. This operation which is kinesthetic reinforces learning and makes

the learner an active participant in the learning process. If video games are popular, it is because they engage the player in skillful physical responses to various challenges. We believe, there is no need to cite the websites which include games because these can be found easily in the market or through Google. The only piece of advice we should give to students is to use educative games and avoid playing violent video games because they can them more hostile

#### 4. 3. 4 Technology and Interpersonal Intelligence

Students frequently use technology alone, and for purposes such as remediation or personal exploration, this is often preferable. Current research indicates, however, that when students use computers in pairs or small groups, comprehension and learning are facilitated and accelerated. Positive learning experiences can result as students share discoveries, support each other in solving problems, and work collaboratively on projects. In today's workplace, these skills are increasingly imposing themselves. There are many ways that technology can be used in the classroom to enhance interpersonal skills. For example, students can be videotaped as they give a presentation or performance. They can then observe their facial expressions and body movements to see whether these enhance or detract from what they wish to communicate. Groups of students can discuss their observations of each other, understanding that they should begin and end with a positive observation and that criticism is only to be offered in a constructive manner.

Interpersonal skills can be enhanced through small technology groups in the classroom, as well as through computer networking with students in other classrooms, schools, or countries. Even more dramatic is the increasing frequency of teleconferencing through satellite transmission. The face-to-face contact with learners who can see and hear each other via technology is a highly motivating way to develop

communication skills, as students in different parts of the country or the world join together in problem-solving environmental, economical, or political issues. The Copen Family Fund in New York has been instrumental in fostering the development of school-based computer networks: IEARN (The International Education and Resource Network) links five centers in the United States with projects in fifteen foreign countries. Two persons represent IEARN in Algeria; One in Oran and the other in Algiers. (Contacts were made to establish a center in Sétif but IEARN representative in Oran showed unwillingness). The Global Education Model in Yorktown Heights, New York, links 42,000 students in grades K-12 with students in the several countries round the world. The Albuquerque Public School links 600 users in the district's 120 schools through a district-wide electronic mail network. And the Pacific Northwest Center links Washington State's 34 Schools for the 21st Century. The Copen Fund is piloting on-line, low-cost, computer-teleconferencing for such projects. Among the large numbers of other networks are National Geographic's Kidsnet, ATT's Learning Network, and Peacenet. The Internet, which is a network of computer networks, includes thousands of networks used by millions of people of all ages. For educators, telecommunications networks offer an important resource and support system. Growing numbers of networks such as America Tomorrow have been created to link educators with each other, and offer up-to-the minute educational news and resources on educational innovations and restructuring. Airplane pilots have for some time been learning to handle emergencies and to use new equipment through virtual reality. Medical students can now perform their first surgeries virtually. (This technique, we think, took place in Constantine a few years ago). At Children's Hospital in Tokyo, virtual reality is used to scaffold the learning of disabled and developmentally delayed children. They may, for example, experience for the first time real sports, such as playing football, or experience other physical skills. It takes

little imagination to project what virtual learning experiences might one day offer in schools to students of physics, chemistry, biology or foreign languages.

Distance Learning facilitates communication between teachers and students in different parts of the community, state, or world. This interactive technology develops expanded and enhanced interpersonal skills and breaks through cultural barriers as students and teachers learn to communicate in new ways appropriate to this medium. An Algerian girl, who is not allowed to talk face to face with a man, can do it thanks to the internet.

#### 4. 3. 5 Technology and Intrapersonal Intelligence

Technology use in exploring and expanding the mind is contributing efficiently in the development of intrapersonal intelligence. It is offering students an adequate means to pursue a line of thought in great depth and control their own learning and intellectual progression. Like the human brain, multimedia material makes connections between ideas and images. Individual student learning does encourage intrapersonal intelligence and the computer can facilitate it through a wise use of adequate programs. Fostering learning how to learn through technology means fostering intrapersonal intelligence and learning-to-learn operation is a very essential part of preparation for lifelong learning. Teachers should remember and remind their students that there are powerful multimedia tools which can become an extension of the human brain and facilitate the exploration and expansion of intrapersonal intelligence when used in appropriate and interactive ways.

#### 4. 3. 6 Technology and Musical Intelligence

The The

emergence of technology in the field of music has enabled students to compose music immediately by manipulating notes and graphic representations of musical concepts on the computer. The Musical Instrument Digital Interface (MIDI) in America has



made it possible to compose and orchestrate a variety of instruments on the computer. This program exists in Algeria and many people are using it. Pyware's "Music Writer" and Activision's "Music Studio" are other examples of software programs that enhance musical intelligence. It is worth mentioning that artificial music does help students understand learn harmony, notation, and reading music. Students should but be encouraged to buy CDROM discs, and music technology hardware from the market. Teachers should always explain to their students that the development of musical thinking and creativity will result in an enrichment and expansion of musical intelligence. For further information concerning this topic, one has to connect to "The Association for Technology in Music Instruction (ATMI)" whose directory publishes a list of all the existing music computer programs.

#### 4. 3. 7 Technology and Naturalist Intelligence

Electronic technologies are, however, excellent tools that facilitate scientific investigation, exploration, and other naturalist activities Telecommunications technologies help students to understand the world beyond their own environments, and help them to see how their actions can actually affect their world. Scientific instruments have enabled us to measure soil and water temperature, wind speed, and soil composition. In sum, technology has improved our teaching and learning about nature in the following ways:

- It makes science topics more real (related to nature).
- It enables the learners to observe closely and even touch 'nature'.
- It lends immediacy both to data sharing and the questions learners ask.
- Students make valid contributions to scientific research, participate in saving the environment
- Their notion of research concerning nature expands.

- Students learn that science really involves questions, not answers, and that one question can have several answers.
- New opportunities for dialogue among students and between teachers and students will emerge to assess how well an essential natural process is understood.

Among the many organizations offering exciting on-line learning explorations about nature are:

- The National Geographic Online at <http://www.nationalgeographic.com/> allows students to go on expeditions with famed geographic explorers and photographers.
- Odyssey In Egypt: the Interactive Archaeological Dig takes students in grades 6-8 to the ruins of a Coptic Monastery to work "virtually" alongside archaeologists (<http://www.scriptorium.org/odyssey>)
- "Class Afloat," a virtual cruise for students in grades 3--9, follows the adventures of a crew of students aboard the tall ship Concordia as they circumnavigate the globe (<http://www.teachtsp.com/>)
- Microsoft's Mungo Park, an online adventure magazine, offers chat sessions with expedition parties who also report their experiences via the Internet, relying on satellite communications systems, laptop computers, and digital cameras (<http://mungopark.msn.com/>)

#### 4. 3. 8 Technology and Visual/Spatial Intelligence

Today, no one can deny the fact that our students have grown up watching television and video tapes. Most of them are highly oriented to visual learning, outside and inside school. Unfortunately, in the Algerian context (and may be in most developing countries), students when in front of a visual device, they are but passive observers.

Multiple intelligences, here, intervenes to 'transform' the learners from a passive observer into an active thinker. Slides, movies, and overhead transparencies, turn to be important adjuncts to students' learning when they are sifted and carefully planned. Computers along with printers and copy-machines are also essential support systems for any kind of academic work when wisely used. The VCR, which is an efficient audiovisual support, is bound to lend itself to active learning in numbers of ways. Its being 'toute option' enables the teacher to run a program from beginning to end, stop, and rewind or replay when necessary. These options would enable the teacher and the learner to observe critically, review what needs to, and enable slow learners to follow and assimilate in a more efficient way. In other words, opportunities to discuss what students have already seen and what they will see next make possible the anticipatory and participatory learning that are of paramount importance to the educational process.

Visual peripherals that reinforce topics and skills to be learned are an important part of accelerated learning classrooms, and needless to say the task of changing them frequently can enhance the students' multiple intelligences and make learning an agreeable experience. The availability, as an example, of camcorders makes it possible for students to produce their own videos as an alternative to written reports. Camcorders may also help teachers to produce videos as lesson presentations- this is one way for teachers to clone themselves and make their lectures much interesting and available for different classes at a same time. In the USA, Students with special needs are not neglected and visual media is made at their disposal to develop their learning and intelligences. For example, students with speech difficulties can actually see their speaking patterns through a visual device called IBM's SpeechViewer. This device provides visual feedback, and allows students to learn to make appropriate changes. Students, who cannot move or use their fingers to

write, may talk into the computer and it will print out what they say; others who can move but cannot speak may work with computers that say back what they have written on the screen. Children with delayed speech may find help by using a "Wolf" board with a variety of pictures or words that "say" what they are when touched. These visual-spatial tools might not be essential for the learning process, but they do offer exciting and motivating ways to engage students, normal and disabled, through exercising visual-spatial intelligence and make any subject more accessible. They will surely be of major value to students with physical disabilities or other special needs for they will, in fact, move what might otherwise, for many, remain nonsense and meaningless abstractions into understandable, visible reality.

Another pioneering educational effort which should be encouraged in schools is the internet. This telecommunication system is to be used as a means to link students throughout the world using the target language and share information with each other about topics of concern. Teachers might as well set students to do projects and use the internet as a resource for their research. The nut of the shell for students under this category, the visually oriented student, is that computers and the internet allow them to learn through their preferred channels or strengths. They do interact with technology and will take advantage of opportunities to see, observe and manipulate whatever material they are accessing. They can edit or create a given task in different forms before they make a final copy format of a written project.

#### 4. 3. 9 Integrating Technology in Multiple Intelligences

- Visual/Spatial: Graphics programs that help develop creativity and visual skills. Also browsing the Internet, organizing files, folders will develop some spatial understanding.

Other applications children may benefit from are:

- Draw programs (CorelDraw)
- Image composing programs (image composer)
- Paint programs (Photopaint, Microsoft paint)
- Reading programs with visual clues
- Web page programs
- 3D software
- Software games
- Spreadsheet programs which allow children to see charts, maps or diagrams
- Multimedia authoring programs

Musical: programs that help write or play music.

- Music composing software
- Videodisc player
- Programs integrating stories with songs and instruments
- Reading programs which relate letter/sound with music
- Programs which allow children to create their own music
- CD-ROMs about music and instruments
- Audio CDs
- Tape recorders
- Word processors (to write about a movie or song)

Bodily-Kinesthetic: Using computers will help develop hand-eye coordination.

Working with a computer will allow children to become involved in their learning, actively.

Other applications children may benefit from are:

- Software games that allow contact with the keyboard, mouse, joystick and other devices.
- Programs that allow children to move objects around the screen.
- Word processing programs
- Animation programs

Interpersonal: Students can work in groups of two to four on the computers.

Working in groups will strengthen children's communication and cooperation skills.

Applications children may benefit from are:

- Computer games which requires two or more persons
- Programs that allow to create group presentations (PowerPoint)
- Telecommunication programs
- E-mail
- Distance education
- Chat to discuss ideas
- Help others with any programs

Intrapersonal: The computer can help children build up individual skills. It allows for differences in children's learning styles and abilities. Children may work on their own pace with computers.

Applications children may benefit from are:

- Any programs which allow children to work independently.
- Games involving only one person.
- Brainstorming or problem solving software.
- Instructional games
- Word processors for journaling and recording feelings
- Developing multimedia portfolio
- Video editing (Adobe Premier)

Bloom's taxonomy has also a word to say here. According to Armstrong (2000:117) this taxonomy provides “a kind of quality control mechanism through which one can judge how deeply student’s minds have been stirred up by a multiple-intelligence curriculum”. MI instructions and materials can be designed to incorporate Bloom’s six levels of cognitive complexity. The following curriculum outline suggested by Armstrong (ibid: 118) shows how a teacher can articulate competencies that address most of Gardner’ intelligences.

ology Unit: Local environment- trees in your neighborhood

MI  
intelligences

Bloom’s Levels of Educational Objectives

	knowledge	comprehension	application	analysis	synthesis	evaluation
Linguistic	Memorize names of trees	Explain how trees receive nutrients	Given description of tree diseases suggest causes of each disease	Describe how each part of a tree functions	Write a paper describing the life cycle of a tree from pre-seed to post-seed.	Rate different methods of controlling tree growth
logical	Remember numbers of points on specific trees’ leaves	Convert English to metric in calculating height of trees	Given height of smaller tree, estimate	Analyze materials found in sap residue	Given weather soil and other information, chart	Rate different kinds of tree nutrients based on

			height of larger tree		projected growth of a tree	data
Spatial	remember basic configurations of specific trees	Look at diagrams of trees and tell what stage of growth they are in	Use geometric principles to determine height of tree	Draw cellular structure of tree root	Create a landscaping plan using trees central feature	Evaluate practicality of different landscaping plans
Kinesthetic	Identify tree by the feel of the bark	Given array of tree fruit, identify seeds	Given type of local tree, find an ideal location for planting it	Create different parts of tree from clay	Gather all materials needed for planting a tree	Evaluate the quality of different kinds of fruit
Musical	Remember songs that del with trees	Explain how old tree songs came into being	Change the lyrics of an old song to reflect current issues	Classify songs by issue and historical period	Create your own tree song based on information in this unit	Rate the songs from best to worst and give reasons for your choices
Interpersonal	Record responses to the question “what is your favorite tree?”	Determine the most popular tree in class by interviewing others	Use survey results to pick location for field trip to orchard	Classify kids into groups according to favorite tree	Arrange field trip to orchard by contacting necessary people	Rank three methods to ask others about tree preferences
Intrapersonal	Remember a time you climbed a tree	Share the primary feeling you had while up a tree	Develop “tree climbing rules” based on your experience	Divide up your experience into “beginning», «middle” and “end”	Plan a tree- climbing expedition based on your past experience	Explain what you liked best and least bout your experience
Naturalist	Learn to discriminate different tree leaves by sight	Describe how other living beings (e.g., humans, animals) Benefit from tree	Create a system for classifying different tree leaves	Analyze the function of given tree in terms of te larger ecosystem in which it finds itself	Develop an approach for protecting specific types of trees in your neighborhood from damage or disease	Evaluate which trees in your neighborhood are most eco- valuable to the environment

Table 15 MI Theory and Bloom’s Taxonomy

To conclude this set of activities, we suggest an outline of MI with a complete lesson plan along with related information sent to us by Professor Alison Oswald from Utah University (Wednesday, September 16, 2009 3:52:39 PM). Alison participated in a seminar in Jijel in 2005 and is now working with the Ministry of Education in Rwanda.



# Multiple Intelligences

Key Concepts	<ol style="list-style-type: none"> <li>1) Different learners are intelligent in different ways.</li> <li>2) A multiple intelligence is a field or set of skills in which a learner may have special ability or talent.</li> <li>3) There are eight multiple intelligences.</li> <li>4) It is possible to develop different intelligences.</li> <li>5) Teachers should use a variety of activities that involve different intelligences so that all learners will feel successful and comfortable.</li> </ol>
Key Words	intelligence, multiple intelligence, musical-rhythmical, logical-mathematical, bodily-kinesthetic, visual-spatial, intra-personal, inter-personal, naturalist, linguistic.
Learning Outcomes	<p>Learners will:</p> <ol style="list-style-type: none"> <li>1) Identify their own intelligences using a multiple intelligence quiz.</li> <li>2) Identify intelligences which are most and least used in language classrooms.</li> <li>3) Analyze a lesson plan to determine which intelligences are used, then re-write the plan so that it includes activities for at least five intelligences.</li> <li>1) Write a lesson plan that supports at least five intelligences.</li> </ol>
Teaching Strategies	<ol style="list-style-type: none"> <li>1) Individual writing: What things do you do well? What things do you do poorly? Why do you do these things well or poorly?</li> <li>2) Learners report their answers.</li> <li>3) Teacher writes pre-reading question on the blackboard (What intelligences do you think you have developed? Why do you think so?) and asks learners to think about their answer as they read the text.</li> <li>4) Individual reading The Multiple Intelligences.</li> <li>5) Teacher asks learners to report their answers to the pre-reading questions.</li> <li>6) Learners take the Multiple Intelligence Quiz.</li> <li>7) Think-pair-share: Teacher writes the following questions on the blackboard: Which intelligences are most frequently used in a language class? Which intelligences are least used in a language class? What do you think happens to learners when the teacher only uses activities for a few intelligences? What classroom activities do you think support the different intelligences?</li> <li>8) Individual reading of Menu of Multiple Intelligence Activities</li> <li>9) Learners work in small groups to identify which intelligences are included in the lesson plan on Hotels Go Smoke-Free.</li> </ol>

	<p>10) Groups report their answers to the class (#2 - walking interview: interpersonal, linguistics; #3 – class discussion: linguistic, interpersonal; #4 - dis/advantage of smoking in public places: interpersonal, linguistic, visual-spatial; #5 – scanning: logical-mathematical, linguistic; #6 – reading: linguistic; #7 – pair work: visual-spatial, linguistic, interpersonal, linguistic; #8 – class discussion: interpersonal, linguistic; #9 – review: linguistic; #10 – individual writing: intrapersonal, linguistic.</p> <p>11) Learners write a lesson plan which supports at least five intelligences.</p>
Check Yourself	<ul style="list-style-type: none"> <li>• Which of the intelligences are most difficult to use in teaching a language? Which are the easiest?</li> <li>• Which intelligences are most commonly used in schools and universities?</li> <li>• What intelligences do you use in your daily activities?</li> </ul>
Resources	<ul style="list-style-type: none"> <li>• Outline of Multiple Intelligences</li> <li>• The Multiple Intelligences</li> <li>• Learning Preferences Quiz</li> <li>• Menu of Multiple Intelligence Activities</li> <li>• Hotels Go Smoke-Free</li> </ul>
Resource Center References	<ul style="list-style-type: none"> <li>• Christison, Mary Ann. Applying Multiple Intelligences Theory in Pre-service and In-service Education Programs. English Teaching Forum, April-June, 1998, pp. 2-13 (<a href="http://exchanges.state.gov/forum/vols/vol36/no2/p2.htm">http://exchanges.state.gov/forum/vols/vol36/no2/p2.htm</a>)</li> <li>• Multiple Intelligences: Gardener's Theory, <a href="http://www.ericdigests.org/1998-1/multiple.htm">http://www.ericdigests.org/1998-1/multiple.htm</a></li> <li>• Strategies for Identifying the Talents of Diverse Students, <a href="http://www.ericdigests.org/1998-1/diverse.htm">http://www.ericdigests.org/1998-1/diverse.htm</a></li> </ul>

## Outline of Multiple Intelligences

### I. What's intelligence?

- A. In English, intelligence means the ability to understand and learn well and to make decisions based on reason.
- B. Traditionally, intelligence was considered to be global – either an individual was intelligent or not.

## II. What's a multiple intelligence?

- A. In 1983 Howard Gardner, a psychologist suggested a different theory of intelligence.
  - 1. Gardner believes that every individual can develop intelligence in different ways or fields.
    - a. Gardner has suggested that there are at least eight types of intelligence.
    - b. Other psychologist have suggested that there are many more types of intelligences.
- B. A multiple intelligence is different than a learning preference:
  - 1. An intelligence is a set of skills or abilities that can be used to complete tasks.
  - 2. Every person can develop every intelligence.
- C. Teachers can help learners by using a variety of activities to support and develop different intelligences.

## III. What are the multiple intelligences? How can teachers support or develop them?

- A. Linguistic
  - 1. The ability to use words effectively, in written or oral work.
  - 2. Awareness of language and the way that language is used.
  - 3. Linguistic intelligence can be developed by creating a print-rich context; a classroom with many books and things to look at and read – and then write about and discuss.
- B. Visual-spatial
  - 1. Is aware of colors, shapes and sizes – and the way that things look together.
  - 2. Has the ability to represent things in graphic form, whether in pictures or in graphic organizers.
  - 3. This intelligence can be developed by making posters, graphic organizers, or pictures.
- C. Naturalist
  - 1. Good at classifying natural things like plants or animals, or artificial things like cars or machines.

2. Can identify and describe natural processes (seasonal change, the growth of animals or plants).
3. Teachers can help learners develop their naturalist intelligence by asking them to look at and think about things in nature or to develop systems of categorizing objects or ideas.

D. Interpersonal

1. Can understand other people and perceive their feelings.
2. Works well with other people and is an effective leader.
3. Teachers can develop this intelligence by asking learners to work in groups and take different roles (group leader, speaker). (See the Learner-centered teaching section for information about roles).
4. Activities like problem or conflict solving will help learners develop interpersonal skills.

E. Intrapersonal

1. Is aware of her own feelings and the reason she feels that way.
2. Knows what she does well and what she needs to improve, and works well independently.
3. Teachers can help learners develop their intra-person intelligence by asking them to write in journals or make choices about classroom tasks or homework assignments (“You can choose to work in pairs or alone,” “You can make a poster, a short play, do research about the topic on the internet/library.”)

F. Logical-mathematical

1. Can use and understand numbers effectively.
2. Good at identifying relationships of cause and effect and identifying steps in a process.
3. Learners can develop this intelligence by looking for causes and effects in texts or grammar rules, or using math in the classroom.

G. Bodily-kinesthetic

1. Has a good sense of balance and physical coordination.
2. Can effectively use their body to express ideas or feelings; will be good at drama and non-verbal communication.
3. Bodily-kinesthetic intelligence can be improved by asking learners to move in the classroom, act out dialogs or language processes.

## H. Musical-rhythmical

1. Remembers songs and can make music by singing or using an instrument.
2. Easily identifies the rhythm of a song or poem.
3. Learners can develop their musical intelligence by listening to and making music.
4. They may also listen to and identify the rhythm and intonation of a poem or spoken language.

## The Multiple Intelligences

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Are you intelligent? Can you dance or sing? Do you know a lot about plants or animals? Do you have a lot of good friends? When you're feeling sad, do you know what to do to make yourself feel better?

Traditionally, psychologists thought that intelligence was global; either a person was intelligent or she was not. Intelligence tests were designed to measure this idea of intelligence. But those intelligence tests only measured language and math. They didn't measure the ability to sing or dance or be a good friend.

In 1983, a psychologist named Howard Gardner suggested a new definition of intelligence. He thought that intelligence was the ability to do any activity well. Gardner said that there are many ways to be intelligent – and that traditional intelligence tests didn't measure all of those ways. Gardner has described eight “intelligences,” or ways to be intelligent:

linguistic, naturalist, logical-mathematical, — musical-rhythmical, visual-spatial, bodily-kinesthetic, interpersonal, and intrapersonal. If you're good at dancing, you probably have bodily-kinesthetic intelligence. If you're good at singing, you have musical-rhythmical intelligence. If you know a lot about plants and animals, you probably have naturalist intelligence. And if you know what to do when you're feeling sad, you may have intrapersonal intelligence.

Gardner says that every person has every one of these intelligences. With practice, the intelligences can be developed. Some people are strong in two or three of these intelligences, and a few people have developed all intelligences.

— Here's more information about the eight intelligences:

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### Interpersonal

If you can make friends easily, you probably have a strong interpersonal intelligence. This intelligence includes the ability to work well with other people and be an effective leader. It is important for teachers and managers to develop their interpersonal intelligence.

### Musical-rhythmical

Anyone who can sing or play a musical instrument has this intelligence. But people who are good at writing poetry may also have this intelligence. People with musical-rhythmical intelligence are also good at finding patterns and it will be easy for them to find stress and intonation in a language.

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### Intrapersonal

If you are aware of your own feelings and know what makes you happy or sad, then you've developed your intra-personal intelligence. People with good intrapersonal intelligence also are good at knowing their strengths and weaknesses. They also know what to do to make themselves feel better if they are sad or angry.

### Bodily-kinesthetic

If you're good at dancing or sports, then you've already developed your bodily-kinesthetic intelligence. People who have developed this intelligence will have good balance and physical coordination. They will also be good at using their bodies to express feelings or communicate. Actors, athletes and dancers have good bodily-kinesthetic intelligence.

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### Logical-mathematical

Of course, people who have developed this intelligence are logical and good with numbers and math. They are also good at identifying causes and effects and understanding rules. Scientists, physicist and mathematicians usually have this intelligence. The logical mathematical intelligence is measured by traditional intelligence tests.

### Visual-spatial

If you like to draw or paint – or do anything artistic, then you have a strong visual-spatial intelligence. This intelligence includes the ability to create art using different shapes and colors. It also includes the ability to see or imagine the relationship between the position of different things. Artists and sculptors use this intelligence. So do chess players when they think about how they will move a piece.

will help you entertain your friends when they come to see your apartment.

### Naturalist

If you're good at classifying animals or plants you probably have a well-developed naturalist intelligence. Naturalist intelligence is good at noticing the behavior of animals and the changes that occur when the seasons change or animals and plants grow. Learners with a strong naturalist intelligence are also good at classifying artificial things like cars and houses.

### Linguistic

If you have a talent for language – reading, writing, speaking, and listening – then this intelligence is one of your strengths. The ability to write an effective essay, debate or give a good presentation are all part of this intelligence. Journalists have developed this intelligence and so have lawyers and many politicians. This intelligence is measured on traditional intelligence tests.

Many tasks require use of two or more of these intelligences. For example, if you remodel your apartment, you will need logical-mathematical intelligence to make a budget and decide how much paint to buy. Visual-spatial intelligence will help you decide where to put the furniture. And then interpersonal intelligence

## Multiple Intelligence Quiz

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Write 0 next to the sentence if you disagree. Write 1 next to the sentence if you agree. Write 2 next to the sentence if you strongly agree. Add the points in each section. The highest scores are the intelligences you have developed most.

### Linguistic Intelligence

- ☐ I like to write articles or stories.
- ☐ I read something -- not connected with my work or my studies -- almost every day.
- ☐ I pay attention to billboards and advertisements outside.
- ☐ It's easy for me to learn and remember new words.
- ☐ I like to do crossword puzzles.
- ☐ I like it when the teacher writes on the blackboard or uses posters or charts.
- ☐ I think I am a good writer.
- ☐ If I hear a song a few times, I can usually remember the words.
- ☐ I really like to read and write.
- ☐ I have written something that I like.
- ☐ Total
- ☐

### Musical-Rhythmical Intelligence

- ☐ It is easy for me to find the rhythm of music.
- ☐ When I hear music, it is easy for me to sing with it.
- ☐ I notice when someone is singing the wrong notes.
- ☐ I have a good voice and I can sing many different notes.
- ☐ I play a musical instrument.
- ☐ I listen to music often at work or at home.
- ☐ I know the music for many songs.
- ☐ I can recognize different styles of music.
- ☐ I often whistle or hum music when I am by myself or in a place where I am comfortable.
- ☐ Listening to music makes me feel better if I am unhappy.
- ☐ Total
- ☐

### Logical-Mathematical Intelligence

- ☐ I believe things more easily if they can be measured or proven with math.
- ☐ I can do math easily in my head.
- ☐ I like playing card games or chess.
- ☐ I liked to study math when I was at school.
- ☐ I think that most things are logical.
- ☐ I like games where I have to think and find an answer.
- ☐



- \_\_\_\_\_ I am interested in new ideas in science.
- \_\_\_\_\_ When I make something – a homework assignment, a cake, a dress, a chair or something new for my home, I measure things exactly.
- \_\_\_\_\_ I like to find solution for problems.
- \_\_\_\_\_ I'm a very consistent person; my friends and family always know what to expect.
- \_\_\_\_\_ Total
- \_\_\_\_\_

### Visual-Spatial Intelligence

- \_\_\_\_\_ I pay attention to the color of clothing I wear.
- \_\_\_\_\_ I take photographs or draw pictures.
- \_\_\_\_\_ I like to read books or magazines with lots of pictures.
- \_\_\_\_\_ I like textbooks that have pictures, charts or graphs.
- \_\_\_\_\_ It is easy for me to find my way when I go to a new city or part of the city I don't know.
- \_\_\_\_\_ I like doing puzzles.
- \_\_\_\_\_ I like to move the furniture in a room.
- \_\_\_\_\_ I always use pictures or symbols when I make notes.
- \_\_\_\_\_ I was good at geometry in school.
- \_\_\_\_\_ When I enter a room, I notice how the furniture is arranged.
- \_\_\_\_\_ Total
- \_\_\_\_\_

### Bodily-Kinesthetic Intelligence

- \_\_\_\_\_ I like to go for long walks.
- \_\_\_\_\_ I like to dance.
- \_\_\_\_\_ I like to play some sport.
- \_\_\_\_\_ I like to do things with my hands – sew, knit, build something for my home, fix things.
- \_\_\_\_\_ I like to do a new skill instead of reading about it.
- \_\_\_\_\_ I often get my best ideas when I am walking or moving.
- \_\_\_\_\_ I like to do things outside.
- \_\_\_\_\_ It is hard for me to sit for a long time.
- \_\_\_\_\_ I like classroom activities where I can move around.
- \_\_\_\_\_ Most of my hobbies are connected with a physical movement.
- \_\_\_\_\_ Total
- \_\_\_\_\_

### Intra-personal Intelligence

- \_\_\_\_\_ I often sit and think about my life.
- \_\_\_\_\_ I am independent.
- \_\_\_\_\_ I keep a journal and write down my thoughts.
- \_\_\_\_\_ I don't like to follow what other people do – I prefer to do or make something new.
- \_\_\_\_\_ When my feelings are hurt or I am disappointed I feel better quickly.
- \_\_\_\_\_



- \_\_\_\_\_ My homework assignments are usually original and unusual.
- \_\_\_\_\_ I think and talk about the things that are most important in my life.
- \_\_\_\_\_ I prefer classroom activities where I can work by myself instead of in a group.
- \_\_\_\_\_ I have hobbies or interests that I do by myself.
- \_\_\_\_\_ I know what things make me feel good or bad.
- \_\_\_\_\_ Total
- \_\_\_\_\_

### Interpersonal Intelligence

- \_\_\_\_\_ I prefer going to a party instead of staying home alone.
- \_\_\_\_\_ When I have problems, I like to talk about them with friends.
- \_\_\_\_\_ People often come to talk with me about their problems.
- \_\_\_\_\_ I am involved in social activities several times a week.
- \_\_\_\_\_ I like to invite friends or guests to visit.
- \_\_\_\_\_ I think I am a leader and often have leadership roles.
- \_\_\_\_\_ I like to teach other people – friends, classmates, siblings how to do something.
- \_\_\_\_\_ I have more than one close friend.
- \_\_\_\_\_ I am comfortable in a large group of people or with people I don't know.
- \_\_\_\_\_ I like to work in teams or groups.
- \_\_\_\_\_ Total
- \_\_\_\_\_

### Naturalist Intelligence

- \_\_\_\_\_ I am good at recognizing different kinds of birds.
- \_\_\_\_\_ I like to work in the garden.
- \_\_\_\_\_ I like having pets.
- \_\_\_\_\_ I can recognize different types of cars and the year they were made.
- \_\_\_\_\_ It is easy for me to divide things into groups based on their characteristics.
- \_\_\_\_\_ I can look at the sky and tell about the different types of clouds and what weather they bring.
- \_\_\_\_\_ It is easy for me to see the difference between different types of plants.
- \_\_\_\_\_ I like to spend time outside.
- \_\_\_\_\_ I have plants at home.
- \_\_\_\_\_ I'm good at classifying things and putting them into different groups.
- \_\_\_\_\_ Total
- \_\_\_\_\_

## Multiple Intelligence Menu

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Using a variety of activities is good for learners with different intelligences. It can also help learners develop intelligences they don't practice often. And, it makes the class more interesting! Here are some activities for different intelligences in the language classroom:

### Visual/Spatial

- Make a poster
- Make a mind map, spider map, compare and contrast table, t-table, Venn diagram, cause and effect diagram
- Make an album of pictures or photos.
- Draw or paint a picture of something
- Make a magazine or newspaper advertisement
- Design a book

### Verbal/Linguistic

- Write a story, poem or drama
- Write an essay
- Write a newspaper article
- Conduct a debate
- Make a radio advertisement or program.
- Interview
- Re-tell a story or text
- Write in a learning journal
- Make a book
- Do research at the library or on the internet
- Use a dictionary
- Make a presentation

### Bodily/Kinesthetic

- Act out a short drama or role play
- Go on an excursion
- Use a jigsaw reading
- Look at an information gallery
- Act out new vocabulary

### Logical/Mathematical

- Make a formula to explain new grammar or vocabulary
- Make up analogies to explain
- Describe similarities or differences
- Problem-solving and decision-making
- Measuring or counting
- Analyze numbers from a text
- Classify information into groups
- Predict what will happen next
- Logic games
- Put something in the correct order

- Calculate how much, how long, how many, what percent

#### Musical/Rhythmical

- Give a presentation using background music
- Sing a rap or song that explains
- Find the rhythm or intonation of a sentence or poem
- Explain how the music of a song is similar to
- Transcribe pronunciation or intonation
- Beat out the rhythm of a sentence or poem on a table

#### Intrapersonal

- Individual or independent study projects
- Setting learning goals
- Keeping a learning journal
- Choosing an idea or task
- Assess your work
- Describe yourself
- What is your favorite \_\_\_\_\_ why?
- KWL chart

#### Interpersonal

- Group or pair work
- Cooperative learning
- Discussions
- Debate
- Teach someone about \_\_\_\_\_
- Give feedback
- Get feedback
- Group problem-solving or decision-making
- Make a dialog
- Practice giving and receiving feedback

#### Naturalist

- Make an observation notebook
- Describe changes in the environment
- Draw, paint or photograph natural objects
- Classify objects according to their qualities

## Hotels Go Smoke-free

BASKING RIDGE, New Jersey – Smokers can't find a place to stay anymore.

From New York to California, small and mid-size hotels have gone smoke-free. One major reason is that fewer guests are requesting smoking rooms. But hotel managers point out other advantages: it's cheaper to clean rooms and easier to find customers.

"In all of our advertising we tell about a smoke-free environment. Families with kids like it. It's safer and cleaner," said Chris Canavos, manager of the 98-room Howard Johnson's in Williamsburg, Virginia, which went smoke-free three years ago.

The 79-room Comfort Hotel Midtown, in New York City banned smoking two years ago. For the first seven months of this year, the Comfort Inn has had 96 percent of its rooms occupied.

Leon Bogosian, a salesman from Los Angeles who frequently travels on business, stays at the Comfort Hotel Midtown eight times a year. Of the smoke-free policy, he said: "I come here because of that." "Clean air, that's the main thing for me," he said. When he recently stayed in Detroit, his nonsmoking room was on the same floor with smoking rooms, and "from the elevator to the room, you could smell cigarettes."

Vijay Dandapani, president of the company which runs the Comfort Hotel Midtown, said that maids have to spend an extra five minutes cleaning a smoking room – emptying the ashtrays and cleaning the smoke residue on everything. And, hotel managers point out, curtains, carpets, sheets and pillows have to be replaced more often in smoking rooms, because smokers burn holes in the furniture.

One month ago, the 171-room North Maple Hotel, near New York City dropped rooms for smokers. The North Maple, which targets business travelers and wedding parties, now charges a \$250 cleaning fee to guests who smoke in their rooms -- the amount the hotel says it costs to get rid of the smell.

Audrey Silk of the New York group Citizens Lobbying Against Smoker Harassment does not welcome the change: "A hotel is where you go to relax. If they're telling me I can't smoke in my room, that's not a vacation."

Adapted from CNN.com, Thursday, September 18, 2003 Posted: 11:09 PM EDT (0309 GMT)

Objectives – learners will

- 1) Identify and evaluate information presented in the text that argues for or against smoking in hotels.
- 2) Express opinions in writing about smoking in public places using transition signals to introduce a causes or effects (for, because, since, as, result from, be the result of, because of, as a result of).
- 3) Identify new words in the text and guess their meaning from context (homework assignment).

Materials:

- 1) Photocopies of the text Hotels Go Smoke-Free

1. Class Preview – 5 minutes

- Today we're going to read a text about smoking in public places in the United States.
- You'll identify the advantages and disadvantages of allowing smoking in hotels in the text.
- Finally, you'll write three or four paragraphs arguing for or against smoking in hotels using the transition signals that you learned last week.

2. Walking Interview: Smoking – 7 minutes

- Write the following question on the blackboard:  
§ Should smoking be permitted in restaurants? Why or why not?
- Ask learners to copy the questions into their notebooks.
- Ask learners to stand up and walk around the room and interview five of their classmates and writing down classmates' answers.

3. Class Discussion: Smoking – 8 minutes

- In what places is it permitted to smoke in our country?
- In what places is smoking forbidden in our country? Do people always respect non-smoking signs?
- Ask learners to report their answers to the walking interview.

4. Pair Work: Listing Dis/Advantages of Allowing Smoking in Public Places -- 10 minutes

- I'd like you to work with a partner.
- What are the dis/advantages of allowing smoking in public places?
- Please choose a graphic organizer like a mind map or t-table to organize your ideas.
- You will have ten minutes to work and list your ideas.

5. Individual Scanning: Hotels Go Smoke-Free – 5 minutes

- Quickly look through the text and find all the numbers.
- Do the numbers support the advantages of smoking in hotels or the disadvantages?

6. Individual Reading: Hotels Go Smoke-Free – 10 minutes

- Now read the text again..

7. Pair Work: Dis/Advantages of Allowing Smoking in Hotels – 5 minutes

- I'd like you to work with the same partner as before.
- You should add the information about dis/advantages of smoking in hotels from the text to your graphic organizer.

8. Class Discussion: Dis/Advantages of Smoking in Hotels – 10 minutes

- Does the text present more advantages or disadvantage of allowing smoking in a hotel?
- What do you think is the author's opinion about smoking in hotels? Why?
- Do you think the hotels described in the text made a good decision? Why?
- What do you think would happen if smoking were forbidden in restaurants and hotels in our city?

9. Class Review: Transition Signals for introducing Causes or Results – 5 minutes

- Do you remember when we talked about using transition signals to introduce causes or effects last week?
- Take a minute and find those notes in your notebook.
- Can you make some sentences about the information in the text using these signals?

10. Individual Writing: I'm a smoker/I'm a hotel manager – 15 minutes

- I'd like you to count to two.

- If you are a one, you should imagine that you are a smoker.
- You should write a paragraph to convincing hotels that smoking should be allowed in rooms.
- If you are a two, you should imagine that you are a hotel owner.
- You should write a paragraph explaining why smoking should not be allowed in hotels.
- Remember to use transition signals.

#### 11. Homework Assignment: New Vocabulary in the Text – 1 minute

- While learners are working, write the following assignment on the blackboard
  - 1) Re-read the text
  - 2) Underline new words
  - 3) Try to guess their meaning from the context
  - 4) Check your guesses by looking in a dictionary.
  - 5) Then write two sentences using the words.

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

	Yes Good to excellent	Yes Average to adequate	No, needs improvement	Not applicable
<b>Social Climate</b>				
1. Does the teacher demonstrate interest in and concern for each student?				
2. Does the teacher project friendly positive attitude in the classroom?				
3. Are the students comfortable and relaxed with the teacher and each other?				
4. Do the students know each other				



by name and enjoy exchanging information?				
5. Do the students volunteer and cooperate in carrying out group responsibility delegated by the teacher?				
6. Does the teacher use the physical environment to enhance language learning and social interaction?				
Variety in Learning Activities				
1. Is appropriate use of language skills required in this lesson?				
2. ARE audio-visual aids or realia used to enhance the lesson?				
3. IS there appropriate variation in student grouping? (whole class, pairs, groups)				
4. Is there appropriate variation in input and output?				
5. Is there appropriate variation in pacing?				
6. Is there appropriate variation in the nature of the task?				
Opportunity for Student Participation				
1. Does the teacher delegate tasks to students whenever possible?				
2. Does the teacher distribute turns evenly among all students?				
3. Does the teacher appropriately utilize techniques and drills to maximize student talk time and minimize teacher talk time?				

4. Does the teacher develop appropriate tasks for pairs and groups of students to maximize student participation and lessen teacher domination?				
6. Does the teacher make use of games, songs, competitions to enhance student multiple intelligences?				
Feedback and Correction				
1. Does the teacher help the students to monitor their own output whenever the focus is on form or accuracy?				
2. Does the teacher effectively elicit self-correction of errors whenever possible?				
3. Does the teacher prepare remedial work based on an effective analysis of the student performance in tests?				
4. Does the teacher pinpoint the source of error without actually correcting the error?				
5. Does the teacher strike a happy balance between correcting so much that students become inhibited and not correcting any of the errors that occur?				

Table 16 lesson evaluation checklist

Note: there are other checklists on the market which might yield better results.



## CONCLUSION

The use of multiple intelligences in classrooms is the choice of instructors and their institutions. In Algeria, institutions might not be aware of this theory or because of political reasons they know it but are not allowed to adopt and adapt it. Instructors then, are to play the role and must first recognize the need to go beyond the verbal-linguistic and logical-mathematic intelligences. While these two intelligences have dominated academe traditionally, other intelligences should not be ignored. Once having recognized the need to reach out to learners who favor the other intelligences, instructors need to release and empower their students to use these intelligences to learn and to think. While modern technology is not essential for the utilization of these learning intelligences, technologies can certainly make their demonstration and implementation more accessible in the classroom setting. Institutions must also adapt to the age of information and recognize academic work in iterations other than the traditional 'ink and paper' forms of essays, term papers and exams. Authentic academic work can take many creative forms in the age of information and cyber technology.

## Chapter Five

### Assessment in the EFL Class

#### Introduction

Today, a very significant amount of experimentation in new methods of assessment is in progress. Much of the effort is targeting authenticity or realism of the assessments, the criteria we should take into account when measuring student performance, procedures for marking or scoring the new assessments, and training of teachers in how to use and score these assessments. This work is imposing itself because of the new methodology which is revolutionizing education in the USA and worldwide.

To understand this widespread interest in new assessments, one must understand the concerns about current testing programs. Many arguments against current forms of assessment are echoed hither and thither. Focus on Evaluation and Measurement. OBEMLA (1992) mentioned the following arguments:

1. Current standards for student performance as reflected in our tests are not high enough to meet the needs of the next century (or even today). New standards are needed. New assessments suitable for all students are needed.
2. Current tests and student evaluation procedures do not measure what all students actually know and are able to do.
3. Current standardized tests do not measure what is taught; i.e., they are not aligned with most curricula.
4. Current tests and assessment procedures do not measure adequately the higher order thinking skills and processes needed in today's and tomorrow's world, skills in

which students are demonstrating weakness. Alternative, authentic assessments are needed.

5. Curriculum must be built around real life (authentic) tasks. Only real life, authentic assessments can validly and adequately assess the results of such a curriculum.
6. New assessments that can be used to compare the educational progress of school systems, schools, and individual students both nationally and internationally over time are needed.
7. To be appropriate for all students, assessments must be criterion-referenced; i.e., they must measure gains in knowledge and skills over time.

Of course, we are not supposed to deal with assessment as such, but we feel the need to include in our work the assessment tools we ought to use when implementing the multiple intelligences theory in the EFL Class.

## 5.1 An Overview on Assessment

### a) Definitions

What is the meaning of assessment? What makes it different from test, measurement and evaluation? What are the basic terminologies used in assessments. To get started, it is necessary for teachers and learners to be able to understand the meanings of several terms which will aid them in reading and understanding the class materials related to this topic. The following terminology presented by Palozzi from Indiana University (2002) offers a concise overview.

- Assessment refers to a variety of ways (e.g., tests, quizzes, student assignments, teacher observations) of collecting information on a learner's language ability or achievement. The term 'Assessment' is an umbrella term encompassing many measurement instruments. Some assessment information is gathered throughout a

student's time in a course with the aim of adjusting instruction and some at the end to measure student learning.

- Test refers to an instrument that is used to measure student learning at a particular point in time (e.g., multiple-choice tests, quizzes, cloze tests).
- Evaluation differs from assessment in that it is concerned with the overall language program and not just with what individual students have learned. It could include interviews, examination of curriculum materials and a variety of other information sources to determine how well a program is operating and which of its goals are being met.
- Measurement is defined by McNamara (2000) as a theoretical and empirical analysis of scores and score meaning. Measurement deals with the questions such as “What do the scores tell us about what students have learned?” or “Is the test or assessment matched to the learning goal?”

Furthermore, familiarizing students and teachers with the fundamental theoretical concepts of validity, reliability, practicality and washback effects are of paramount importance. Bachman and Palmer (1996) describe these concepts as the qualities of test usefulness. They should be omnipresent whenever designing an assessment task.

- Validity

This concept refers to whether a test measures what it is supposed to measure.

There are several sorts of validity. These include:

- 1) Content validity: Does the test cover all aspects of what it claims to measure?
- 2) Face validity: Do the test items look like realistic, authentic uses of what is being measured?

- 3) Construct validity: Do all the items seem to be measuring the same thing?
- 4) Concurrent validity: Do students score on other measures of a construct such as listening or reading comprehension the same way they do on the test a teacher is using?

- Reliability

This concept deals with the trustworthiness of the test results. Types of reliability are:

- 1) Test/retest reliability:

If students took the same test twice during a short time-frame with no instruction or feedback between testing, would they score the same way?

- 2) Internal consistency

It is a measure of consistency where a test is split in two and the scores for each half of the test are compared with one another. If the test is consistent it leads the user to believe that the items are most likely measuring the same thing.

- 3) Inter-rater reliability

This concept asserts that two raters evaluating language use should agree with each other. In the Algerian context, especially in large scale examinations such as 'BEM and BAC', inter-rater reliability is ensured by having the exam paper of a candidate corrected by three different teachers.

- Washback

This concept means the effect of testing on teaching and learning. Negative effects include teaching only to the test and memorizing possible test questions. Positive effects, if the test is valid, include focusing teaching upon what is important.



- Practicality

It is a matter of the extent to which the demands of the particular test can be met within the limits of existing resources including time, staff and test administration.

We would add under this concept, the climate atmosphere which we believe influences so much the performance of a candidate: How would we expect from a student living in the Sahara to do well in an exam when scheduled by the end of June? (e.g., the case of BEM or Baccalauréat in Algeria).

To what extent are the above concepts important for designing and evaluating an assessment plan? Generally, these concepts are viewed as basic considerations for constructing a test or an assessment. They will provide the fundamental principles to help you understand research and issues about assessment and make a sound judgment on the usefulness of each type of assessments.

## 5.2 Assessment Purposes

Thinking of assessment purposes constitutes two basic questions: Why do teachers assess? For what purpose do they assess? Assessment is generally divided into three different purposes:

### 5.2.1 Formative Assessment

This type of assessment aims at monitoring the progress of the students' learning, and providing the teacher with relevant information to alter a programme or a course and plan the next teaching points accordingly.

### 5.2.2 Summative Assessment

The purpose of this assessment is recording overall school achievements of students at definite points during an academic year such as at the end of a semester, or a school year. It is normally based on the aims and objectives declared in the official syllabus.

### 5.2.3 Diagnostic Assessment

Teachers often have recourse to such type of assessment to diagnose and identify areas of strength and weakness that students exhibit so that appropriate assistance may be given to such students.

## 5.3 Types of Assessments

Knowing the purpose of each assessment enables the teacher to select the type of assessment that would match the desired aims and objectives. Gredler (1999) introduces a variety of assessments that can be categorized into two distinct parts: qualitative and quantitative.

### 5.3.1 Qualitative Assessments

This type includes teacher observations, teacher questions, interviews and student reflections. We believe, here, (especially in the Algerian context) that this assessment is bound to be a total failure. Its reliability depends so much on the answer to the following questions:

- Does the Algerian teacher have the academic ability to observe and evaluate the students?
- Is the teacher experienced enough to design and ask relevant questions which are bound to give reliable and valid results?

-Does the teacher possess the ability to build appropriate interviews?

-Is the teacher able to involve the students in intelligent reflections and interpret correctly these reflections?

To our mind, in the Algerian context, very few teachers can assume this responsibility. This is mainly due to the lack of adequate teacher training and above all, the lack of intrinsic and extrinsic motivations of the teachers themselves.

### 5.3.2 Quantitative Assessments

These assessments have been dominating the Algerian school for years and are still used up to now. They are concerned with numerical scores and include teacher-created tests, standardized tests and rating scales. As a reminder, rating scales are divided into two types: norm-referenced and criterion-referenced scales. Norm-referenced scale information aims to compare one student to all others who took a test (i.e., what percentage scored above or below the target student?). In Algeria, this assessment is being used in comparing schools themselves especially during large scale examinations such as "BEM" and "Baccalauréat".

Criterion-referenced scales are used to provide the teacher and the administration with information about students compared with a set of performance criteria .It aims at answering the question: How competent is the student? Still, the expected results in Algeria are bound to be misleading and incorrect because of, as mentioned before, the inability of most teachers to use such scales. Worst, the lack of specialized testing services in our country is turning the situation into a higgledy –piggledy. But! We must acknowledge here, that there are some teachers at the university level who are furnishing tremendous efforts to "straighten the skew". Their efforts are clearly mirrored in the Middle and Secondary School course books. Such efforts received a big

bravo from The School of International Training (SIT) lecturers during a seminar held in 2007 in Sétif. 'SIT' head office is located in Vermont, USA.

### 5.3.3 High Stakes Assessments

High stakes assessment are tests (often standardized) associated with high stakes decisions such as employment, graduation or access to further education. In many EFL or ESL contexts, English is a mandatory subject in the syllabus. In order to get into graduate schools, students must demonstrate English proficiency at particular levels.

Placing much emphasis upon high stakes assessments, gives them a larger role in shaping how teachers and students interact during the teaching operation in classes. Such interaction might be described as the “washback effect” because the elements emphasized on a high stakes test can wash back and influence instruction.

The washback effect in Algeria is very often negative. It is so because at the CEM or Secondary school, students' needs in learning English are not fully assessed or analyzed. They are learning it but they are not sure when at the university they will get training in the medium of English; whether they will specialize in English studies or in another specialty where English would be totally absent. Such a phenomenon is omnipresent in many Arab countries. Kandil (2004), in describing his experiences teaching Arab learners, has studied the need analysis and the Arab learners, reported that his students' needs in learning English were ignored and one of the factors that contributed to this phenomenon was the impact of the state-wide, high-stakes test. In this respect Kandil's (quoted in Palozzi- 2002) says:

Students' future depends solely on the scores that they get in the state-wide Thanaweyya Amma (TA) test [ the General Secondary School Test] which students

take at the end of their secondary (high-school) stage and whose scores determine in which university/college students can pursue their education. In other words, students do not know if they will end up studying medicine, law, military sciences, commerce etc. until they check their TA test scores against the minimum score required for their favorite college. This has had a great impact on English language instruction at the high-school level. Preparing students linguistically to be medical doctors is not the same as preparing them to be accountants, army officers, or flight attendants. (Para. 11)

No one can deny the pressure of high stakes assessments which is very often making it difficult for English teachers to deliver appropriate instruction and assessment for learners. Moreover, we should remind our Algerian readers that there are other high stakes, international level standardized tests such as TOEFL, CESL, OPI and SIOP tests which are playing important roles in EFL countries for the purposes of career selection and education placement decision. In order to be admitted into graduate schools in English-speaking countries, students are usually required to have minimum level of English language proficiency preset by these standardized tests.

It is worth familiarizing students and teachers alike with currently used English standardized tests at the international level, focusing on the details of what these assessments are and how they function.

## TOEFL

The Test of English as a Foreign Language (TOEFL) measures the ability of nonnative speakers of English to use and understand North American English as it is spoken, written and heard in college and university settings. The TOEFL test measures English language proficiency in reading, listening and writing and is offered on computer in

most regions of the world. In areas where access to computer-based testing is limited, a paper-and-pencil version of the test is administered.

(<http://www.ets.org/toefl/overview.html>)

## TOEIC

The Test of English for International Communication (TOEIC) measures the everyday English skills of people working in an international environment. TOEIC scores are used for various purposes. For example, learners take the TOEIC test to apply for a new position, Employers rely on the TOEIC test to document progress in English-training programs to recruit, promote, and hire employees.

(<http://www.ets.org/toEIC/overview.html>)

## IELTS

International English Language Testing System (IELTS) is the test of the complete range of English language skills which will commonly be encountered by students when studying or training in the medium of English. All candidates take the same Listening and Speaking Modules. There is an option of either Academic or General Training Reading and Writing Modules. Academic is suitable for candidates planning to undertake higher education study. General Training is suitable for candidates planning to undertake non-academic training or work experience, or for immigration purposes. <http://www.ielts.org/mediacentre/ieltsexplained/default.aspx>

## OPI & SOPI

The Simulated Oral Performance Interview (SOPI) is a performance-based, tape-mediated speaking test. It follows the general structure of the oral proficiency interview

(OPI) used by government agencies and the American Council on the Teaching of Foreign Languages (ACTFL) to measure speaking proficiency. The difference between the two is that OPI is a face-to-face interview whereas the SOPI uses an audiotape and booklet to provide test instructions and elicitation.

### TSE

Test of Spoken English (TSE) is a speaking test developed by Educational Testing Service (ETS). The test is used to measure the ability of nonnative speakers of English to communicate orally in a North American context. The TSE and SPEAK score user guide (in the reading list) provides a comprehensive description about the test including examples of the test items.

### CELS

Certificates in English Language Skills (CELS) are a set of English language examinations that assess English language competence through a variety of tasks. Each skill area (reading, writing, listening and speaking) is covered by a separate certificate. In other words, the test takers will receive the certificate based on their performance achievement in each skill.

How are high stakes tests used beyond admission decisions?

In addition to using test scores to decide who gets into particular schools or jobs, educators sometimes use these tests to make decisions about what sort of education a student first receives. Kim Wilhelm (1997) describes the use of TOEFL scores for placing students into different levels of reading courses in an English Intensive program. She found that the scores from TOEFL highly correlate with Nelson-Denny

Reading Test scores allowing her to make some estimates of what difficulty level of English material international students will be able to comprehend. Wilhelm found that ESL/EFL students in her intensive English Program, though most had completed undergraduate college degrees, had English reading abilities that ranged across 5 to 6 grade levels or from college level down to upper elementary school level. Using this information, Wilhelm was better able to structure her English Intensive program to better match assignments with students' actual English reading ability levels.

#### 5.4 Assessment for Multiple Intelligences

An assessment in the manner which respects MI requires an equivalent adjustment according to the recommendations set by this theory. It would doubtlessly be plain hypocrisy to apply this new theory and set pupils to participate in a wide multispectrum experiences in the nine intelligences then assess them through standardized tests which focus parochially on verbal or logical domains. The MI theory proposes a fundamental restructuring of the manner a teacher assesses his students' learning progress. The MI assessment discourages the use of norm-referenced tests and stresses authentic measures which are criterion-referenced and ipsative. In other words, the assessment is "to compare a student to his/her past performance" and should be related to one's daily life. In this respect, Gardner (1987:189) writes:

I believe that we should get away altogether from tests and correlations among tests, and look instead at more realistic sources of information about how peoples around the world develop skills important to their way of life.

Any authentic assessment should involve a variety of measuring instruments and methods. According to Armstrong (2000), observation is the most reliable assessment.



He explains that "observing students solving problems or fashioning products in real life contexts provides the best picture of student competencies in the range of subjects taught". Besides observation, Armstrong asserts that documenting student performance might include a multitude of ways:

- **Anecdotal Records:** teachers are advised to keep a journal and record the students' accomplishments, their interaction with classmates, and any other relevant information about each student. In the Algerian context, we advise teachers to record the way their students perform in class, be it individually, in pairs or in groups. Recordings of such behaviors might help the teacher identify his students learning styles and plan his teaching accordingly.
- **Work Samples:** teachers should keep a file for each student work including the student productions in language. Such file we believe, will enable the teacher to have a complete understanding of the students as members of the class, and decide what needs to be done to improve their English language proficiency.
- **Audi-Cassettes:** teachers should use cassettes not only to exhibit materials but to record reading samples, jokes, songs, riddles and other samples of verbal expressions. Replaying the recordings enables the students to spot their mistakes and correct them.
- **Videotape:** the use of videotape is to be used with hard tasks, such as acting out a role (role playing) or introducing a project. We would add here the possibility of using the video in class outings especially when a teacher engages in linking the class to the outside world.
- **Student Journal:** teachers should set students to keep an ongoing journal about their experiences with the school, the administration and the teacher. This might include writings, doodles and drawings.

- Student- Kept Charts: students should be fostered to keep their records of academic progress, using not only figures, but charts and graphs. This would help them know where they were and where they are now. For us, these charts might turn into energizers which urge the student to furnish greater efforts.
- Sociograms: these represent a visual record of students' performances while interacting in class, using symbols to "indicate affiliation, negative interaction, show negative interaction and neural contact between class members".
- Informal Tests: here, teachers are urged to create non-standardized tests to elicit information about a student's strength in any given language learning area. Emphasis is to be put on constructing a qualitative picture of the student's assimilation of the material being dealt with rather than exposing the student's ignorance in a given teaching point in the EFL class.
- Informal Use of Standardized Tests: it is by no means a 'sinful thing' to use standardized tests if the teacher knows how to adapt them to the requirements of MI theory. Hoerr (2000:25) says that in a multiple intelligences environment, educators and teachers need to recognize "not only what we assess, but also why and how we assess."

For students, assessments should provide feedback on their achievements and consequently, enable them to "increase their intrapersonal intelligence". According to him, learners can make use of all the intelligences in learning and showing what they have learned. For educators, assessments are tools which enable them to know what a learner has mastered and what still needs more attention. They make it possible for teachers to gain feedback about the job they are doing, and offer an opportunity to see how students' performance change when they are given a chance to use all their intelligences.

For the larger community," assessments generate confidence that students are prepared to succeed in society. In this respect, it is the responsibility of educators and teachers to inform the community that there are "other, richer ways of measuring student progress".

Hoerr (2000:26) suggested several ways of assessment in a multiple intelligences school:

- Projects, Exhibitions, and Presentations

Students are asked to show their understanding of the lectures by creating projects, organizing exhibitions and presentations. PEPs involve complex acts which require learners to use all intelligences. Students, in addition to being knowledgeable about their topic, have to use their personal intelligences. While making presentations, they have to "work on making eye-contact, enunciating and pacing their speech, projecting their voices and reading their audiences". PEPs are often achieved as collaborative activities involving students' interpersonal intelligences and team work.

- Progress Reports

These are formal communications about student progress which are generally shared with coworkers and family members. They contain rubrics for all intelligences along with narrative reports about the student's progress. The narrative reports often describe what the learner or the class has achieved during the reporting period. They also provide "a way to document the learner's efforts in demonstrating knowledge through Peps. Figure 4.1 (p.30) shows a full text of a progress report at New City School- USA. Furthermore, a progress report includes information about a student's strengths and areas of weaknesses .It is sent home twice a year to enable the parents to have a rich

understanding of their child's growth at school. This process constitutes an ongoing communication between parents and the school.

- Portfolios

A portfolio, according to Hoerr (2000:27) is but "a collection of work and artifacts that give a picture of the child's growth- a way of capturing progress without using paper and pencil measures". Reviewing portfolios allows both parents and teachers to view the student's progress in all of the intelligences. Very often, the role of the teacher is simply meeting the parents and answering their questions. The true value of the portfolio is the student reflection. The key role of the learners is reviewing and discussing their portfolios with their parents.

Portfolios contain reflection sheets. They are to be completed by students, teachers or both. Any accomplishments that capture students' progress should be included in the portfolio. These might be photographs, three dimensional accomplishments, audiotapes and videotapes. Sometimes, portfolios should contain evidence of any accomplishments that happen outside the school. This happens whenever there is an attempt to link the school to the outside world.

- School Displays

Setting the students to exhibit their accomplishments on the walls is an efficient way to assess their work through multiple intelligences. They can send a powerful message: students are working in earnest! A multiple intelligences school wants halls and walls for educating and improving students' performance, not just for decorating. However, the hanging on the wall of students' work, though well done and attractive, is not sufficient. Students are assigned to explain to the audience- classmates, parents and

visitors- the purpose and meaning of their work. Such task should involve all the multiple intelligences.

## New City Progress Report

Grade: 5<sup>th</sup>

Teacher: .....

Name: .....

Date: .....

### Theme

This semester we delved deeply into a study of the country of Uruguay and the Uruguayan culture .We cooked some typical dishes, such as biscuits and fried bread, while exploring some other traditions such as drinking tea. A major focus of this theme study was for the students to learn that although our cultures are different in many ways, they are alike in so many other ways.

As part of our theme study we watched a video about Uruguay and read about the geography, economics and human resources of this country. The students also worked on projects ranging from cooking typical dishes to others that explain the patriymbols .We used these opportunities for the students to compare their life in the United States with one that a typical Uruguayan student would experience.

In addition to this focus on Uruguay, the students also explored the native language learning vocabulary related to sports, time, feelings, and different stores in which they might shop.

INTRAPERSONAL DEVELOPMENT		SKILLS ASSESSMENTS	
Can self-assess; understands and shares own feelings			
CONFIDENCE		Exhibits knowledge of Spanish-speaking cultures introduced in class.	
Engages in appropriate risk-taking behaviours			
MOTIVATION		Shows interest in learning Spanish	

Is actively involved in the learning process			
<b>PROBLEM SOLVING</b> Shows good judgement		Exhibits knowledge of vocabulary.	
<b>RESPONSIBILITY</b> Accepts responsibility for own actions and materials.			
<b>EFFORT and WORK HABITS</b> Follows written and oral directions			
<b>INTERPERSONAL DEVELOPMENT</b> Can successfully interact with others		<div style="border: 1px solid black; padding: 10px;"> <p><b>Key:</b>  AC = Area of Concern  DA = Developing Appropriately  ED = Exceeding Developmental Expectations  * = Needs Added Attention</p> </div>	
<b>APPECIATION FOR DIVERSITY</b> Respects the individuality of others			
<b>TEAMWORK</b> Cooperates with peers and adults			

### New City School Portfolio Reflection

Name \_\_\_\_\_

Title of work \_\_\_\_\_

(or description)

Date \_\_\_\_\_

Grade level \_\_\_\_\_

Teacher \_\_\_\_\_

This work exhibits my efforts in the following Multiple Intelligences area(s):

- |                          |                      |
|--------------------------|----------------------|
| <input type="checkbox"/> | Bodily-Kinesthetic   |
| <input type="checkbox"/> | Interpersonal        |
| <input type="checkbox"/> | Intrapersonal        |
| <input type="checkbox"/> | linguistic           |
| <input type="checkbox"/> | Logical_Mathematical |
| <input type="checkbox"/> | Musical              |
| <input type="checkbox"/> | Naturalist           |
| <input type="checkbox"/> | Spatial              |

Reflection and comments:

---

#### 5-4.1 Performance Assessment in Verbal/Linguistic Intelligence

As a reminder, verbal/linguistic intelligence is the ability to use with clarity "the core operations of language". The significant components of this intelligence include reading, writing, listening and speaking. After these skills are learned, students engage themselves in distinguishing the different formats a language offers, such as poems, stories and essays. Ultimately, "the peaks of language development are reached by those who combine sounds and sense in unique patterns to express universal thoughts and to speak to the hearts of many"( Bellanca,1997:69)

The standards a teacher may use to develop a rubric for verbal/linguistic intelligence include:

- Precision

By precision we mean the accurate use of language to help students develop their linguistic skills. Students' strive to enrich the spoken and written language when expressing themselves should result in a considerable growth in vocabulary and communication strategies.

- Logic

This standard is set to prevent students from being carried away with "the sound of words alone". Students have to learn how to create the logic of a beginning, middle and an ending. When more adept, they should be able to create oral or written work for a variety of audiences. Thanks to the logic of sequence, students learn to exhibit formal logic by writing arguments, giving supportive evidence and providing an argument with examples and illustrations.

- Flexibility

This standard aims at making the learner proficient in reading and writing in multiple ways. Flexibility is attained when the students experiments a variety of reading and writing formats across a curriculum .In this respect, flexible thinking is of paramount importance –when a student examines a linguistic problem, he needs to explore the many possible answers to be able to think about new possible arrangements.

The most useful tools for verbal/linguistic intelligence are the ones which not only assess, but develop this very intelligence. Among the tools we may use to assess verbal /linguistic intelligence are the ones cited by James Bellanca et al (1997) which include:



- Demonstrations

Demonstrating one's oral skill in the verbal/linguistic intelligence might occur through a variety of options to demonstrate specific abilities such as tone, emphasis, or interpretation. Students may select their favorite movie scene, situations from novels or plays, political speeches and historic events. The teacher's role is looking for the student's ability to replicate the language patterns appropriate to the situations being modeled. Verbal demonstrations must use a framework in which the teacher and the students discuss and then agree on which verbal/linguistic behavior should be modeled. Together, they set the criteria which should be omnipresent throughout the role-play. They should establish:

- Purpose of the demonstration
- Verbal/linguistic characteristics to be demonstrated
- Student portrayal of the different verbal/linguistic structures

Generally, demonstrations involve role-plays and dramatic reading where students are to perform for a live audience. Recording students' performance on audio or videotape is another alternative. Students' performance might be given much more efficiency when the teacher uses a check list of some criteria such as, facial gestures, arm movements, volume control for emphasis, and so forth. The check list might look like the following:

## CHECK LIST

Student Name \_\_\_\_\_ Date \_\_\_\_\_ Event \_\_\_\_\_

Strong  
Demonstration

Good  
Demonstration

Not yet

-Strong voice projection

-Clear eye contact with  
Audience

-Facial gestures fit  
feeling of text

-Appropriate gestures

-Multiple inflections

Table 17 Check list

- Group projects

Whenever a group project results in individual accountability, it becomes a positive assessment tool for verbal/linguistic intelligence. Group projects enable the students to glean the best thinking for the group members and then translate this thinking into their own understanding. The course of action is to be decided by the whole group; "how to tackle the assignment, how to formulate it and how to present it". Needless to say, as students work together on any group project, they talk, combine their ideas and hone their verbal/linguistic skills. While preparing group projects, the teacher monitors the whole work by moving from one group to another. Monitoring aims at providing the teacher with insight into the student's capability in verbal interaction.

- Logs and journals

Verbal/linguistic intelligence can be enhanced and assessed by setting students to write in their journals or thinking logs about any interchanges among their peers. When students reflect on class exchanges or conversations that help shape pair work or group activities, they gain and develop the skill of verbalizing paper. Giving students an opportunity to write in logs or journals teaches and trains them how to transform the spoken word into prose. These two tools give students a chance to reflect about their own verbal /linguistic interaction, and offer a valuable opportunity to monitor what was going on during students' classroom interaction.

- Observation check lists

Another way to assess this intelligence is the use of observation check lists. This tool helps the teacher measure the quality of verbal interchange among the students. Focus is often on the interchange which promotes social skills growth and the activities that enhance higher-order-thinking skills development.

Before designing an observation checklist, the teacher first decides what verbal/linguistic skill he expects from students, e.g., encouragement or higher order questioning. Second, the teacher designs an observation checklist which includes the above skills. Third, the teacher informs the students about the verbal cues that he or she is listening for during whole group instructions. Examples of cues may include:

### PRIMARY EXAMPLES

What a good idea!

Thank you for sharing that with me

I like that idea

What do you think?

Why do you think that?

Why do you think we should do it that way?

### MIDDLE GRADE EXAMPLES

Tell me more about .....

That's a great idea because.....

Can you give some more detail?

How can we work on this together?

### SECONDARY EXAMPLES

Explain how you see the difference between.....

What do you think would happen if.....

This seems to be similar to .....

It is worth mentioning that thanks to an observation list, the teacher can evaluate the quality of the interactions his students are developing.

- Interviews

Interviews were and remain one of the strongest techniques a teacher can use to develop his students verbal/linguistic intelligence. If well exploited, they provide an insightful opportunity to find out where a given student believes he or she is as a reader

and what his personal reading outcome might be for the academic year. Example of interview:

#### PRIMARY EXAMPLES

James, what kind of stories do you like reading?

What is your goal as a reader?

What kinds of things do you like to write about?

What would be a fun writing experience for you?

#### MIDDLE GRADE EXAMPLES

Rebecca, tell me about your reading habits?

What kind of letter writer are you? Explain.

What fictional character would you like to be and why?

What reading goals have you set for yourself this year?

#### SECONDARY EXAMPLES

Steve, tell me about your reading habits.

What kind of books do you read for pleasure?

What kind of an essay writer are you?

What reading and writing goals have you set for yourself this year?

At the same token, we must remember that verbal/linguistic intelligence gives much importance to verbal communication which is so central to culture. The easiest and most efficient method to develop this intelligence is the high-order-open ended questions which not only check students' understanding but encourages them to develop their thinking and ideas. Such questions might be like the following:

-what would happen if .....?

-How did you arrive at that idea?

-What do you already know about ...?

-How is that like .....?

-How is that different from.....?

The verbal or written answers to these questions enlightens the teachers and shows them where the students are in their understanding of a given teaching point as well as their skill level in the verbal/linguistic intelligence.

#### 5.4.2 Performance Assessment in Musical/Rhythmic Intelligence

Before tackling the different ways we can use to assess this intelligence, we feel it is important to make the reader aware of its standards. Among these standards:

- Originality

The history of music is replete with scores that involve different sounds or rhythms which attract the hearer and pleases his ears. Music might start from simple to complex and generally makes the hearer "laugh ,cry, sing or move" The originality standard involves making up a song and seeking new ways to express one's emerging feelings of love or happiness.(This is not the case for everybody, since there are cultures which believe music is "the devil's sound", there are people who abhor music).

For a composer, it is concerned with creating a novel way "to communicate powerful melodies". In other words, the element of originality is reflected in the different ways a composer organizes rhythms and sounds to create unique original melodies.

- Accuracy

This standard is concerned with the ability to practise rhythm and melodies in an accurate way. When practising a musical instrument, for instance, accuracy relates to how well a performer follows the symbols for speed, pitch and beat. Very often, accuracy comes after repetition and practice.

- Comfort

When starting singing, especially before an audience, one feels frustrated, uneasy and uncomfortable. Achieving with musical intelligence becomes a hard task. However, with adequate training and repetition, the performer acquires progressively comfort with his own singing and rhythm.

- Persistence

This standard means "never giving up" the musical task. If composing a song and this song does not rhyme, the performer should stick to the task and try new combinations. Over and over, when he revives edits and persists in furnishing efforts, he reaches the perfect sound. Persistence is the road to perfection.

The assessment tools we may use for this intelligence include:

- Check lists

The development of this intelligence can be assessed through an observation list. To achieve this task two lists are to be used. One aims at observing attitudes and feelings about rhythm or music. The other is used for noting developmental changes. To make it clearer we suggest the following example:

### OBSERVATION CHECK LISTS

#### Attitudes and Feelings (teacher or peer)

1. Participates in musical/  
rhythmic activities eagerly
2. Enjoys and responds to the beat
3. Willing to try musical/  
rhythmic experiences
4. Likes music time

#### Attitudes and feelings (self)

1. I like it when we sing.
2. when my group performs to the  
beat, I feel good about participating.
3. Background music being played  
during independent work time helps  
me concentrate
4. I use the (title) song to help me  
remember the facts.

### DEVELOPMENTAL CHECK LIST

- Uses music or dance as a way to recall information
- Solves problems using the musical/rhythmic intelligence
- Plays an instrument
- Moves a body part (e.g., taps toes) to a beat
- Identifies sounds
- Responds to sound and beat
- Comprehends what is read during independent reading time with  
background music being played

Table18 Observation check list



- Audiotapes and videotapes of performances

To show progress and development over a period of time, we could record a student playing an instrument or singing. For instance weekly or a monthly recording would enable the teacher to know if there is a progress and improvement during this period.

- Anecdotal observation

The anecdotal notes are often placed in the student's folder. Adhesive notes may be used because they are more convenient. When identifying a student's musical strengths or weaknesses, the teacher writes down on the adhesive note the significant event along with the date and the name of the student.

#### 5.4.3 Performance Assessment in Logical/Mathematical Intelligence

This intelligence which involves the ability to use reasoning, solve abstract problems and understand scientific progress, obeys a variety of standards:

- Problem solving

This standard calls for the teacher, whatever the subject he or she is teaching, to determine to what extent a student can analyze a problem, develop a plan to solve this problem, and then evaluate whether the plan is successful or not after actually solving the problem.

- Precision

The precision standard aims at helping the teacher determine "how accurate and detailed" a learner can be when performing a task related to this intelligence. For example, in math, a teacher should know how accurate and detailed a student was in performing some mathematical calculations.

- Metacognition

This standard refers to awareness of and control of one's thinking process. Metacognition in our context involves the student's ability to plan, monitor and assess his or her thinking through a task. In class, this standard mark the quantity and the quality of a student metacognition .The criterion, for instance, might read: each time a student approaches a problem solving task, he reviews what he "already knows about that type of problem" and notes what additional knowledge is needed before he can tackle the problem.

- Logic

This standard is concerned with the teacher's assessment of the quality of the students' reasoning skills. It is concerned with how well a student applies the rules of logic to solve a mathematical problem. For instance, when supporting a point using examples, the student should align his examples with the points being contended.

The assessment tools which fit this intelligence include:

- Teacher-made tests

The teacher-made tests are used to assess students' knowledge and application of math concepts, skills and information in a lesson or a file. The teacher should remember that the test questions are to align with the standards of this intelligence. For example, if the teacher intends to measure problem-solving ability, the test must check (a) appropriate knowledge about how to solve the problem, (b) the student's ability to solve a variety of problems at different levels of difficulty, and (c) the learner's ability to note down relevant instructions on how to solve the problem. The task however, should provide

the student with opportunities to show both precision and ability in solving the problem.

- Demonstrations

Demonstrations involve students in modeling or showing how to do a task. We may compare this task to a television cook who demonstrates how to prepare a special meal. The student who models the logical/mathematical intelligence shows the teacher and the class how to do a mathematical task in a logical sequence. He should explain what he is doing and why. To assess demonstration, the teacher can use demonstration check list which might look like this:

Student	Name:_____	Class:_____
Date:_____		
<input type="checkbox"/> explained purpose of demonstration		
<input type="checkbox"/> explained steps in demonstration		
<input type="checkbox"/> made accurate calculations		
<input type="checkbox"/> showed each step		
<input type="checkbox"/> explained reasons for each step		
<input type="checkbox"/> explained difficulties		

The teacher or other student observers are to complete the check list using a preestablished code. When the demonstration comes to its end, the observers give the student the check lists along with their remarks.

- Group and individual projects

Group and individual projects are practical assessment tools when the projects are completed by cooperative groups but tested for individual accountability. When working, the students learn together in the project but are assessed individually. Assessment focuses on (a) the results and the thinking process used in the group problem-solving project and (b) on the individual's ability to complete a similar problem-solving on his or her own.

- Logs and journals

Logs and journals are a very useful assessment tool for the logical/mathematical intelligence. These tools provide the students with an opportunity to think about their logical thinking and promote their reflection about the problem-solving processes they are learning. Structured journal assignments before and after any mathematical task enable the learner to reflect on and assess his/her own work. An example of what a journal might include:

-today I learned.....

-I can do better when.....

-I can improve my problem-solving by.....

-I need to improve----- because -----

#### 5.4.4 Performance Assessment in Visual/Spatial Intelligence

Like the previous intelligences, visual/spatial intelligence has some standards a teacher should take into account to develop it:

- Spatial reasoning

This standard refers to the ability to "determine how visual elements connect in proportion". It is based on "if.....then" statements. Example: if I draw this shape at this size, then the next shape must be -----size to be in proportion. Spatial reasoning is considered as the foundation standard for this intelligence.

- Flexibility

Flexibility refers to the student's ability to make a visual representation from multiple perspectives. Flexibility can be achieved when a student, for instance, can show a same scene with a variety of light effects.

- Originality

Originality in this intelligence is the most difficult standard to measure because it is concerned with a work that has never been achieved before. It is the standard of "the first time in history". Since this standard might be unrealistic for a classroom, the teacher should encourage students to accomplish a given task by taking a different approach from what they or their peers have previously attempted.

- Persistence

This standard is mirrored in the stories of starting artists who worked for years to perfect their craft. A high performance criterion would compare this standard to student's willingness to revise and restart a given project each time the technique fails. The criterion might note that the student never complains if his/her projects fail.

The assessment tools which are most useful for the visual/spatial intelligence include:

- Product portfolios

For the artist, the portfolio is to comprise finished or completed pieces he/she believes might attract a buyer. In schools, it is also a possible way for the students to gather samples or examples of their best work they prepare to graduate. This portfolio is often reviewed by a committee which judges whether the portfolio owner deserves a diploma or not. This tool involves the students in including in their folio their teacher's summaries of work in progress. It emphasizes the evaluation of the process. At key times in the year, for example, each month or after completing a file, the students and their teacher review these process evaluations to prepare a final evaluation.

- Exhibitions

Exhibitions range from "show and tell" to presentations of post graduate degree defense. During an exhibition, the student or a collaborative team should present evidence of the work to a reviewer. This latter assesses the worth of presentation using a standard-based assessment. In this intelligence, common exhibitions are to emphasize the use of video previews, charts and graphs; poster presentations of materials drawn from other subjects such as science or social sciences.

- Journals

An example of this tool is the most famous diary of Leonardo da Vinci .His diaries were used to include not only his thoughts but mathematical calculations, sketches and drawings. His notes enabled him to check his successes and assess his ideas and works.

The diary was for him a valuable record of his work that prompted his floor of inventions.

#### 5.4.5 Performance Assessment in Bodily/Kinesthetic Intelligence

As previously mentioned, this intelligence aims at enabling the learner to control and interpret motions, manipulate physical objects and building a harmony between the body and the mind. Many cultures around the world do value this intelligence because it keeps both the body and mind sane. Islam, for instance, builds its culture around the importance of one's body, its look as well as its performance. The prophet's saying: "teach your sons swimming, shooting and horse riding" comes to confirm this intelligence.

Among the standards a teacher could use to develop this intelligence, we mention the following:

- Originality

Originality focuses on novel performances when students are set to solve a problem with bodily/kinesthetic intelligence. If we take dancing in the American scene, for instance, we are noticing from time to time new ways which involve new, gestures and body movements. These new types of dancing never occurred before which make them original and attracting.

- Consistency

This standard involves the ability to perform one physical activity uniformly every time. An example of the consistency shown by the best skaters is when they land their jumps over and over.

- Perseverance

This standard accounts for the experiences that are student centered and "hands-on". It requires from the learner to stay on task, and never give up easily if the going turns difficult. It encourages the students to try other ways or seek if the initial way does not work. Training and practice do help students develop their motor skills, and these two elements require much perseverance.

- Flexibility

In this intelligence, flexibility requires teachers and students to assess the different approaches one may take to perform a skill. Flexibility can be shown when for example; a skater uses different ways to interpret music during a free-skate exhibition. It might also be shown in the different approaches a football team takes when with an opponent. The assessment tools most useful for this intelligence include:

- Journal entry

This tool is very important because it is student centered. After a given physical activity has been completed, the student should write journal entries such as:

-Today I learned.....

-What I found most difficult to do in this activity was.....

-What I found easiest to do in this activity was .....

-It is important for me to improve.....

Of course the teachers should review these entries and take them into account when evaluating the student. They can then reteach what is needed to be retaught, shift to the next step or give more of the same (more practice).



- Observation check lists

It goes without saying that active performances do lend themselves to observation check lists. Using a video camera, student groups may record each other while doing a physical activity. Afterwards, the teacher and the students can use a check list to assess the quality of the performance. Example:

Students performing Romeo and Juliet or "Haiziya and her lover"

\_\_\_\_\_ Historically accurate costumes \_\_\_\_\_ Feeling tone in speaking role  
 \_\_\_\_\_ Clear articulation \_\_\_\_\_ Gestures fit the words  
 \_\_\_\_\_ Other .....

#### 5.4.6 Performance Assessment in Intrapersonal Intelligence

This intelligence is concerned with one's ability to know himself and assume responsibility for his life, development and learning. This intelligence is the most private because it deals with introspection, reflection and self evaluation.

The standards a teacher can use to enhance this intelligence might include:

- Self-awareness

The encouragement of self-awareness is a vital key to establishing this intelligence. The teacher should introduce the students to the multiple intelligences and let them find out which intelligence they have the most. He/she should have them think about the things they like doing: drawing, singing, playing with computers and so forth. The main objective for the student is to know which one of his intelligences is the strongest. A multiple intelligences inventory would be very helpful in such situation.

- Reflection

Reflection is in a way a kind of introspection. But this skill can be displayed outwardly. Students' reflections can be demonstrated through the comments they write in their reflective journals, through their self-assessment of their team work, and through the selection they make for their portfolios.

- Synthesis

The amount of reflective time in the intrapersonal situations fosters students to synthesize information. For example, setting students to answer open-ended questions in their reflective journals helps them fashion information so they better grasp it. The use of graphic organizers does help enormously students synthesize information visually. Among the assessment tools which have proved to be very useful for intrapersonal intelligence, we have:

- Logs and journals

Thinking logs along with reflective journals often demonstrate a learner's self-awareness, capacity for reflection and analyzing or synthesizing. These two tools should be created by students for students use because of the reflective nature of this intelligence. The students must control what they allow a teacher or a peer to read. Teachers should respect "confidentiality" and avoid invading the student's privacy. However, students should understand that these tools are not the adequate place where they could "lay bare their private selves". They are tools in which they can plan and assess their school work and their thinking about how they accomplished their school work.

- Teacher-directed assignments

The teacher's role, here, is to construct tests that help students demonstrate their ability in analyzing and synthesizing. By involving students in an analyzing and synthesizing operation, teachers encourage learners to show what they understand. It is an operation which helps students grasp the content of a given teaching point and triggers at the same time the intrapersonal intelligence. It is worth mentioning that the teacher-directed assessments should promote thoughtful, creative and critical thinkers. They should involve the student in higher order thinking. When for instance, students are asked to put together information so that it makes sense to them, and when the information makes sense, it is learned.

#### 5.4.7 Performance Assessment in Interpersonal Intelligence

Unlike the inward focus of intrapersonal intelligence, the interpersonal intelligence focuses outward to other people. A highly complex interpersonal skill is an adult's ability to read and understand the hidden intentions of others. There are many standards which could be used to develop this intelligence:

- Teamwork

Teamwork represents the essence of the interpersonal intelligence. The team influences and encourages development of the individual talents of its members. It represents united efforts that can accomplish assigned tasks. There should be no loafers on a team. There should be cooperation and respects for the individual talents. What matters most in teamwork is an outstanding product or performance that shows the quality of team interdependence.

- Cooperative problem solving

When there is a cooperative problem solving, the interpersonal intelligence is bound to manifest itself. A group of students which functions well is the one which shares different ideas about the possible ways to approach a task or a problem. We can say that students are successful in demonstrating cooperative problem solving when they are capable of creating a low-risk environment; when they can share as many options as possible to reach the best solutions.

- Consensus seeking

Students with this intelligence are not prepared to work alone. They prefer to collaborate on tasks. They are convinced that in order to accomplish a task, they need to reach an understanding about how to achieve a goal. In this respect, consensus is achieved by having the group exchange ideas and talk things over, laying out the options and establishing how the team performance will be presented. The assessment tools which are most useful for interpersonal intelligence include:

- Observation check lists

At the outset, the teacher is to use informal group sharing to introduce cooperative skills. These may include attentive listening and looking at the speaker. It is while working with students to grasp the guidelines for cooperative team behavior, that the teacher assesses the level of the students' interpersonal skills. The skills students need for cooperative learning often include attentive listening, team work, giving encouragement (positive reinforcement), and celebrating accomplishments. The most advanced cooperative social skills are clarifying, solving conflicts and creating consensus. Along with these social skills the students need to develop, there should be

observation check lists to help validate growth in the use of the concerned skills.

Example of check lists (James Bellanca: 179):

<u>PRIMARY EXAMPLES</u>	
•	Listen to partners
•	Stays with the group
•	Looks at the speaker
•	Is sensitive to others' feelings
<u>MIDDLE GRADE EXAMPLES</u>	
•	Uses quiet voice
•	Does not interrupt others
•	Helps others
•	Performs the role assigned
•	Listen to all ideas
•	Looks for more than one answer
•	Encourages others
<u>SECONDARY EXAMPLES</u>	
•	Control voice level
•	Respect others' opinions or ideas
•	Help the group stay on tasks
•	Is a responsible group member/Helps explore different views .

Table 19 Belanca Check List

- Demonstrations

Demonstrations constitute a very efficient way for students to show the fruitful outputs of cooperative interaction. To ensure better results, teachers should understand what is expected from them to achieve high performance. In this respect, teachers and students should agree on the criteria to make their performance successful. These criteria might

include the length of the demonstration, the appropriate visuals, the content of the dialogue and the props that will be needed. While the students are involved in their preparations, the teacher should watch and monitor to be sure that the students are clear on their roles and each of them is sharing in the task. It is worth mentioning that in the interpersonal arena, both direct and indirect demonstrations of social skills are valuable and important. A direct demonstration is the one which uses a direct approach where the students are set to demonstrate a real-life task situation. For instance, students might role play how to resolve a disagreement with a customer who shows dissatisfaction in a department store. An independent demonstration is the one which uses the indirect approach, where the teacher is to structure his or her assessment of a content demonstration to make the students aware of the fact that both their knowledge of the content demonstration and their ability to use the target social skill are being assessed. For example, a teacher would note what the students know about the technique and how they go about giving encouragement.

- Journals

In an environment where the interpersonal learning is omnipresent, journals are effective as process tools. Their importance appears at the end of a cooperative activity.

The teacher may ask the students to refer to their journals and consider:

-How their team went, what team-work skills they believe they are developing. And questions they still have to get things clearer.

When some questions remain unanswered, they are encouraged to review with a learning buddy and, if necessary, with the entire class. In a here- and- now context, the teacher should give a feedback to make all the students meet the highest performance standard.

#### 5.4.8 Performance Assessment in Naturalist Intelligence

This intelligence is so essential to high performance when studying science. We might find it omnipresent in studies of biology, earth science and chemistry. The standards which should be taken into account to enhance this intelligence include:

**Accuracy:** The accurate observation of detail is the basis of effective scientific thought. It springs from an intense concentration of our senses in noting whatever can be seen, heard or smelled.

**Logic:** Logic is related to the development of convergent, logical thinking through identifying and classifying the common attribute, categorizing species and deductive reasoning.

**Persistence:** Persistence is reflected in the scientist's ability to thrive and try over and over to find an answer to a question or a problem. It teaches the naturalists to never give up and reminds them that a slight alteration of a single element in a given experiment might bring a great success. The assessment tools which are most useful for this intelligence include observation check lists and logs.

## Conclusion

Combining authentic assessments with multiple intelligence strategies provides students with the appropriate opportunity to meet high performance standards. Thanks to them, students' attention switches from mastery of facts and contents to a genuine understanding of the process of learning. Facts and figures are mastered not for a test but as efficient tools for solving problems, achieving projects and above all, exploring new dimensions of learning. Assessment, according to the theory of multiple intelligences begins with a focus on problem-based learning. This type of learning begins with the assumption that students, whatever the grade, may know a little about a particular problem, but thanks to the appropriate use of the different intelligences, the students can solve the problem. This strategy helps the teacher forget the "memory tests" and urges him or her to help students assess their knowledge of any subject as well as their problem solving logic. Knowing how they solve a given problem, students grow rich in the development of their multiple abilities to solve any problem they might encounter in any other domain. In this context, assessment, instead of focusing on memory, encourages students to promote insight and challenges them to make creative use of their many intelligences not only in class but in their daily life as well.



## Field Work

### 6.1 Focus of the Study

Among the various questions we set ourselves to answer in this work, we focused on three central questions:

- 1- How can a teacher diagnose his pupil's predominant intelligences and make use of them to prompt teacher change and enhance English language learning?
- 2- Is there a relationship between verbal intelligence and English language proficiency?
- 3- How can we improve poetry comprehension through MI theory and use it as a means to enhance English language learning?

The study was directed by implementing the following general procedures:

1. Obtaining permission to conduct the study from the educational authorities (Direction de l'Education de Sétif), Head of Malika Gaid lycée, and teachers in the classrooms.
2. Randomly selecting the participants and obtaining their parents' consent and their own assent to participate in the study.
3. Permission to video the pupils in class
4. 5.  
Permission to use related video pictures during seminars and conferences

### 6.2 Limitations of the Study

Since the study is based on collecting data by means of an inventory (measuring instrument), the validity of the findings will be influenced by many factors:

- 1- The adequate return of the inventory by the informants.
- 2- The mood of the informants while completing the inventory.
- 3- Since the respondents are human beings, we cannot really control them or know if what they say is really what they feel.
- 5- The Hawthorne effect is omnipresent in our study since pupils might improve or modify an aspect or aspects of their behavior being experimentally measured simply in response to the fact that they are being studied.
- 4- The marks pupils get during the academic year may be misleading and may not mirror the true value of the students if the corresponding tests/exams are not valid and reliable.
- 5- The scholar orientation (orientation scolaire) could be biased and not empirically done. A pupil might have been good at literary subjects but oriented to science streams just because his parents are "friends" to the headmaster or to the orientation counselor.

Note: We must remind the readers, as we did in our previous research work, that ‘The Walter McKenzie’s Multiple Intelligences Survey’ along with the scoring instructions that accompany it are not meant to be used for major life decisions. We believe it is efficient since it is being used worldwide, but we are sure there are more recent and efficient inventories which should be used by specialists to ensure more valid and reliable results. They are often copyrighted. Furthermore, according to the most recent information received from the outstanding German scientist, Georg Ruckriem (2009), many developed countries do not rely only on inventories. They use very modern electronic devices to study brain functions. Georg Ruckriem (2009), in an email sent to us, says:

The outcome is that psychological research on visual, acoustic and sensorial types of learning stems from differential psychology from the 1920s and is right now special subject of physiological research not by questionnaire but by big and most expensive electronic devices.

### 6.3 Methodology Design

A research work is “an ongoing activity which is never totally completed because each piece of research raises additional questions for more research.” (Helbert W.Seliger.2000).This reveals the cyclical aspect of any research work. It is generally displayed in the form of a circle and should include several different events necessary for the completion of a study. To illustrate this, we suggest the following figure from Seliger and Shohamy (2000: 25):

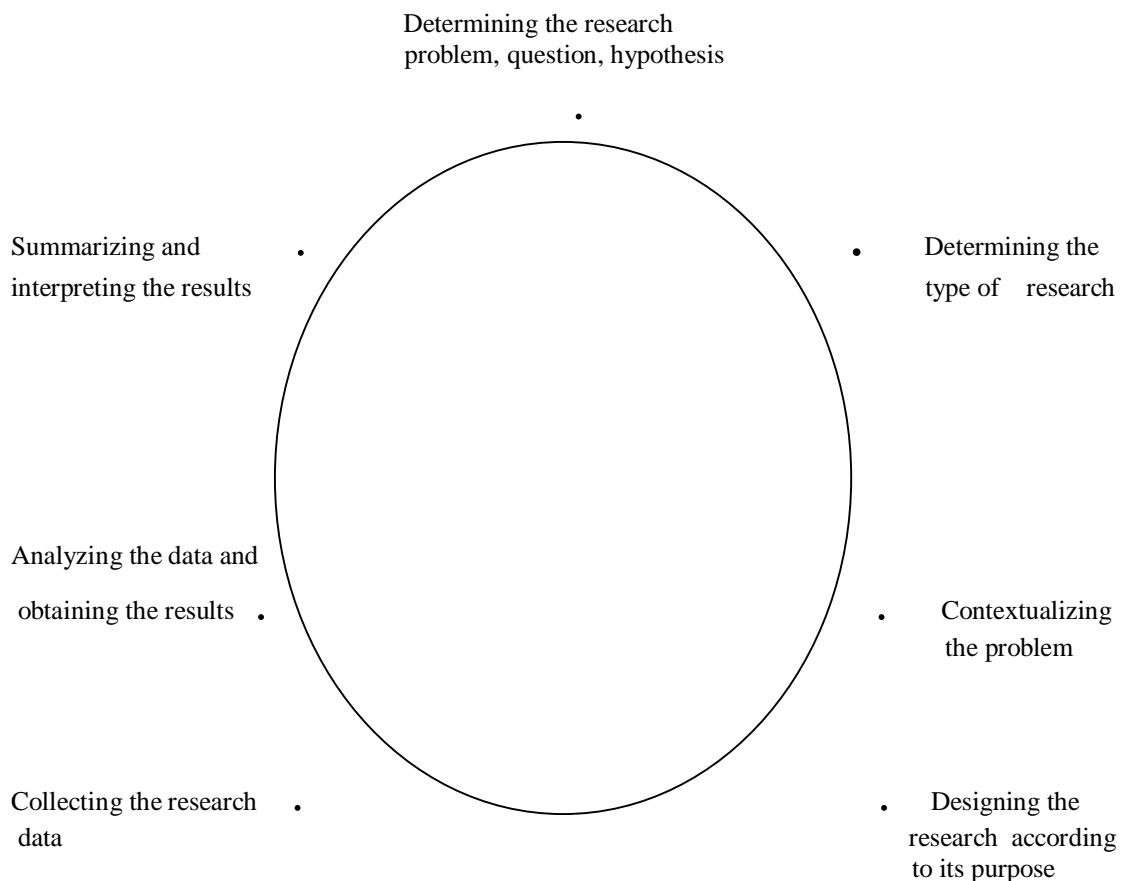


Figure 1 The Research Cycle

In an attempt to make our working procedure go along with the research cycle lines (see above) we proceeded as follows:

1. When we first begin our research study, our research question is: is there a relationship between Verbal/Linguistic Intelligence and the learning of English as a foreign language?
2. Any type of problems requires a different way of getting appropriate solutions. Since the focuses on the qualities and characteristics that are unique to each student, we thought of applying a case study approach within a descriptive method. A range of quantitative, qualitative and comparative techniques are used to corroborate or invalidate the hypotheses put forward. Quantitative, because we have to "uncover and understand thoughts and opinions, to provide a basis for further decision making". Quantitative, because we have to "measure and predict in order to reach a final course of action".
3. The main topic of this research work will be contextualized within a large body of knowledge: the learning process, Multiple Intelligences, learning English as a foreign language, and Second-Year Secondary School pupils.
- 4 The research study will be designed according to an analytic deductive research. The validity, here, is more than a question of the quality of the measuring instruments. If the inventory is made by experts, it will doubtlessly yield valid and reliable results.
- 5 Collecting data: In any research work, collecting data requires procedures which elicit high quality information. Well-thought-out procedures will inevitably lead to valid research findings. In this context, the procedures to be followed are:
  - a- The abstract variable which needs to be studied is "Multiple Intelligences".

b- In the first stage, we shall have to operationalize the variable by identifying the specific traits which exemplify this variable: Verbal/Linguistic, Logical/Mathematical, Visual/Spatial Bodily-Kinesthetic, Musical, Interpersonal, Intrapersonal, Naturalistic, and Existential. Any of these traits will be considered as the data of study because they are elicited by means of a specific data collection device. Here, we shall apply Walter McKenzie's Multiple Intelligences Survey. It evaluates to what degree a student is Verbal/Linguistic, Logical/Mathematical, Visual/Spatial, Bodily-Kinesthetic, Musical, Interpersonal, Intrapersonal, Naturalistic, or Existential. Concerning our second purpose which examines the role of Multiple Intelligences in enhancing students' comprehension of the English teaching materials, we have relied on an experimental method. Pupils were set to attend some MI based lessons and evaluate the contents of these lessons along with their teacher's performance through a questionnaire. The teacher herself had to evaluate her own performance, the pupils' participation and the contents of the lessons presented. It should be noted that the concatenative approach imposed itself while dealing with the implicate research question: "to what extent do MI based activities enhance English language learning?" .

#### 6.4 Walter McKenzie's Survey

Before starting describing this instrument, we thought of including a complete CV of its originator to make the reader understand that the inventory is the product of an expert in the matter with a long experience in education.

##### Education

- George Mason University, Fairfax Virginia, M.Ed. in Instructional Technology
- Ohio State University, Columbus, Ohio, B.S. in Early and Middle Childhood

##### Education

## Employment

Assistant Superintendent, Information Services, Arlington Public Schools

- Director of Technology, Northborough-Southborough Regional School District
- Director of Information Systems, Salem Public Schools
- Instructional Technology Coordinator, Arlington Public Schools
- Senior Technology Training Specialist, Advanced Technology Systems
- Teacher and Technology Trainer, Spotsylvania Public Schools
- Teacher and Gifted Coordinator, King George Public Schools
- Teacher, Fredericksburg Public Schools

## Professional Affiliations and Achievements

- Biographee, Who's Who in America
- Certification, Information Technology Infrastructure Library
- Founder, New England Regional ISTE Affiliate
- Judge, ThinkQuest
- Member, Association for Supervision and Curriculum Development
- Member, International Society for Technology in Education
- Member, National Staff Development Council
- Member, CoSN Green Computing Advisory Panel
- Member, ISTE Technology Leadership Program
- Member, Virginia Educational Technology Advisory Commission
- Member, Virginia Society for Technology in Education
- Participant, The Arts in Every Classroom, The Annenberg Project
- Participant, Changing Education through the Arts, The Kennedy Center
- Participant, ED's Oasis, Teacher Resources
- Recipient, MassCUE Pathfinder Award



- President, Massachusetts Computer Using Educators

#### Online Activities

- Editor, Innovative Teaching Newsletter
- Editor, Digital Dozen Newsletter
- Editor, onCue
- Editor, Perspectives
- Feature Writer, Educast
- Feature Writer, Education World
- Online Teaching and Course Development, Connected University
- Online Teaching and Course Development, Mary Washington University
- Online Teaching and Course Development, Pepperdine University
- Online Teaching and Course Development, Surfaquarium Digital Community of Practice
- Project Sponsor, Art & Architecture Project
- Project Sponsor, Build a Better Mousetrap Project
- Project Sponsor, Digital Community of Authors Project
- Project Sponsor, electronic Iditarod Project
- Project Sponsor, National CyberConvention Project
- Project Sponsor, Presidents' Project
- Webmaster, The One and Only Surfaquarium
- Webmaster, Innovative Teaching
- Webmaster, Multiple Intelligences Pages
- Webmaster, Massachusetts Association for Supervision and Curriculum Development
- Webmaster, Massachusetts Computer Using Educators

## Published Work

- Author, Multiple Intelligences and Instructional Technology, 2nd edition, ISTE
- Author, Standards-Based Lessons for Tech-Savvy Students: A Multiple Intelligences Approach, Linworth
- Contributing Author, NETS •S Curriculum Series - Science Units for Grades 9 – 12, ISTE
- Contributing Author, NETS •S Curriculum Series - Multidisciplinary Units for Grades 6-8, ISTE
- Contributing Author, NETS •S Curriculum Series - Multidisciplinary Units for Grades 3-5, ISTE
- Editor and Contributing Author, NETS •S Curriculum Series - Social Studies Units for Grades 9 – 12, ISTE
- Connected Newsletter: “Mapping Learners to Technology”
- Learning & Leading with Technology: “Find the Best Software: Using Bloom's Taxonomy and Multiple Intelligences”
- Library Media Connection: “Integrating Literature and the Arts into Technology-Based Instruction: A New Unit Model for Educators”
- Library Media Connection: “New Approaches and New Tools for Web Searching”
- New Horizons for Learning: “MI, IT and Standards: The Story of Jamie”
- On Cue: “Blogs: A New Tool for Instruction”
- VSTE Journal: “Media Selection: Mapping Technologies to Intelligences”
- On Cue: “What Makes Online Courses Work?”

## Course Development

- Build Your Own WebQuest
- Building Bridges: Unit Development in the Information Age
- Characteristics of Successful Schools



- Creative Assessment Strategies
- Design Your Own Virtual Field Trip
- Developing a Standards-Based Professional Development Program
- Improving Assessment Results of Low-Performing Students
- Leadership Development
- MI Immersion: A Survey of Nine Intelligences
- Middle School Curriculum and Technology
- Selecting K-12 Software
- Using Data to Boost Student Achievement
- Ways of Knowing: Multiple Intelligences and Technology

#### Presentations

- ASCD Annual Conference
- Building Global Communities
- Building Learning Communities
- Classroom Connect Conferences
- Delaware Valley Association for the Education of Young Children Conference
- Georgia Educational Technology Conference
- Iditarod Teachers Conference
- Massachusetts Computer Using Educators Conference
- Michigan Association for Computer Users in Learning Conference
- National Educational Computing Conference
- Ohio Association for the Education of Young Children Conference
- Virginia Department of Education Conference
- Virginia Society for Technology in Education Conference

Schools and school districts for which Walter has presented include Bayshore Consortium (Hazlet Township, New Jersey), Chestnut Hill Academy (Philadelphia, Pennsylvania), The Congressional School (Alexandria, Virginia), East Hampton, New York Union Free School District, Georgetown, South Carolina Public Schools, Gloucester County, Virginia Public Schools, Kamehameha Schools (Honolulu, Hawaii), McKinney, Texas Independent School District, Prince George's County, Maryland

## 6.5 Description of the Inventory

Walter McKenzie Multiple Intelligences Survey, a non-copyrighted instrument, was designed by Walter McKenzie in 1999. It aims at assessing individuals multiple intelligences. Thanks to it we can know the predominant intelligence in any human being. It consists of nine sections. Each section comprises ten (10) questions. All the ninety questions are mixed up to avoid student intelligence identification during answering the questions. The learner is to place a check on the appropriate line of each question. After answering all the nine sections, one has to refer to the scoring instructions (which are included in the survey) to know her/his predominant intelligence (see appendix A).

## 6.6 Administration of McKenzie Multiple Intelligences Survey

Mrs. Khenchouche, a Secondary-School teacher, and I administered and interpreted the Multiple Intelligences Survey to pupils in three of their Second-Year classes. It was on Monday, November 3<sup>rd</sup>, 2008. The instrument, as mentioned before, (see appendix A) was used in order to assess to what degree a pupil is kinesthetic, musical, mathematical, spatial, interpersonal, intrapersonal, linguistic or naturalistic.

While explaining the content of the survey, we had to use the mother tongue and, sometimes, French language to be sure all the pupils understood the questions.

### 6.7 Population and Sample

Participants in this study consisted of second-year secondary school pupils at Malika Gaid Secondary- School, located in the center of Sétif. A total of 97 pupils from a population of 100 completed the questionnaire (97%; 74 females, 23 males,).The one hundred students taken as the sample belonged to literary, scientific and math streams.

### 6.8 Procedure

The pupils had to answer ninety (90) questions which constitute the nine sections of McKenzie Multiple Intelligences Survey by placing a “1” next to each statement they feel accurately describes them. Then total the column in each section

Example: Section 1

- \_\_\_\_\_ I enjoy categorizing things by common traits
- \_\_\_\_\_ Ecological issues are important to me
- \_\_\_\_\_ Hiking and camping are enjoyable activities
- \_\_\_\_\_ I enjoy working on a garden
- \_\_\_\_\_ I believe preserving our National Parks is important
- \_\_\_\_\_ Putting things in hierarchies makes sense to me
- \_\_\_\_\_ Animals are important in my life
- \_\_\_\_\_ My home has a recycling system in place
- \_\_\_\_\_ I enjoy studying biology, botany and/or zoology
- \_\_\_\_\_ I spend a great deal of time outdoors
  
- \_\_\_\_\_ TOTAL for Section 1

### 6.9 Data Analysis and Scoring

This step consisted of distributing the questions along with their corresponding points under the nine headings suggested by the inventory:

Naturalistic, musical, Logic, existentialistic, interpersonal, verbal, intrapersonal, and visual

The last step was to add the points of each heading separately. The heading which got the highest score represented the predominant intelligence of the respondent.

## 6.10 Summary of Results

### Population

Population	Age	Girls	Boys
97	16 to 23 years	74	23

Table 20 Population

### Distribution of the different intelligences

Name	Nat	Musi	Log	Exis	Inter	Kin	Ver	Intra	Vis	Stre
1. .	05	06	07	08	06	07	08	07	07	Kinest
2. .	09	08	08	09	04	07	07	10	09	intrap
3. .	05	06	09	07	06	07	05	06	08	kinest
4. .	08	08	07	08	06	09	08	08	08	kinest
5. .	03	06	06	04	04	06	04	04	02	logic



6. .	05	05	08	08	05	06	07	07	05	logic
7. .	06	06	07	07	08	07	07	08	07	interp
8. .	04	02	05	06	03	05	02	02	03	exist
9. .	06	09	09	08	09	09	08	10	09	intrap
10. .	07	08	05	08	06	08	07	06	07	kinest
11. .	07	07	05	08	07	08	07	06	07	kinest
12. .	06	07	06	07	06	09	06	06	05	kinest
13. .	06	07	06	07	06	09	08	06	07	kinest
14. .	06	07	06	07	06	09	09	06	07	verbal
15. .	05	07	08	09	08	08	06	06	07	exist
16. .	06	06	05	07	07	06	06	07	04	interp
17. .	08	04	05	06	03	07	04	10	04	intrap
18. .	06	08	08	07	04	09	07	07	05	kinest
19. .	06	09	08	09	10	09	10	07	09	verbal
20. .	07	05	02	09	03	09	06	09	09	visual
21. .	04	02	06	06	06	05	05	05	07	visual
22. .	07	05	08	09	06	05	07	06	07	exist
23. .	07	08	08	09	07	10	07	09	08	kinest
24. .	05	07	08	08	06	10	05	08	07	kinest
25. .	04	04	04	08	05	05	06	06	10	visual
26. .	03	06	06	04	04	06	04	04	02	music
27. .	05	07	08	09	08	04	09	08	07	verbal
28. .	08	06	07	10	04	07	06	07	07	exist
29. .	05	04	07	06	06	07	07	05	06	verbal
30. .	05	07	06	07	08	08	05	06	05	interp
31. .	09	09	08	08	05	09	07	07	05	music
32. .	08	06	06	08	07	10	09	07	06	kinest
33. .	06	07	06	08	05	07	06	06	07	exist
34. .	04	08	05	09	08	08	07	06	06	exist
35. .	06	09	08	09	10	09	09	09	06	interp
36. .	05	03	03	03	02	04	04	05	06	visual
37. .	07	06	09	07	08	06	03	10	07	logic
38. .	07	07	06	05	09	05	04	09	05	intrap
39. .	08	09	06	09	07	08	07	07	09	visual
40. .	08	09	07	07	07	08	08	09	07	music
41. .	07	08	09	08	06	08	04	10	07	intrap
42. .	06	08	07	07	07	07	04	07	06	music



43. .	07	08	09	07	09	07	04	09	06	logic
44. .	04	06	04	05	03	07	07	05	02	verbal
45. .	08	06	07	08	08	09	09	10	08	verbal
46. .	03	06	06	07	04	08	04	09	07	intrap
47. .	07	04	05	07	05	07	07	06	02	verbal
48. .	07	08	04	09	08	05	06	06	07	exist
49. .	08	07	08	04	05	10	09	09	08	verbal
50. .	08	09	08	09	09	10	10	08	09	verbal
51. .	06	08	07	08	07	09	09	07	09	verbal
52. .	06	06	07	08	07	07	07	06	04	verbal
53. .	02	04	03	05	04	05	02	04	02	kinest
54. .	03	02	05	04	01	03	05	08	04	intrap
55. .	08	08	09	08	06	08	07	08	10	visual
56. .	03	04	06	06	04	04	06	04	05	verbal
57. .	04	03	01	04	06	04	03	05	02	interp
58. .	07	05	05	05	07	06	06	06	05	interp
59. .	05	04	05	05	04	04	06	05	05	verbal
60. .	05	04	04	06	04	04	07	04	08	verbal
61. .	07	06	06	07	04	06	06	08	06	intrap
62. .	07	09	07	07	06	08	07	08	06	kinest
63. .	05	05	08	07	01	09	04	10	05	intrap
64. .	07	06	06	08	06	08	08	07	08	verbal
65. .	06	07	09	07	05	09	08	08	07	logic
66. .	05	05	03	07	05	06	08	07	08	verbal
67. .	06	08	06	09	06	08	10	07	09	verbal
68. .	05	04	05	07	04	05	06	07	04	intrap
69. .	04	04	07	07	06	05	06	06	05	logic
70. .	06	06	07	09	06	05	07	05	06	exist
71. .	07	08	07	07	08	09	08	08	08	kinest
72. .	03	03	08	05	02	07	07	06	06	logic
73. .	03	03	02	04\	07	05	04	05	03	interp
74. .	03	03	03	05	04	03	04	05	04	intrap
75. .	04	02	01	05	06	06	04	06	03	kinest
76. .	07	08	08	08	05	06	07	04	06	logic
77. .	05	08	09	07	07	09	07	08	09	visual
78. .	06	08	05	07	07	08	06	03	05	music

79. .	04	05	08	09	07	09	05	08	05	kinest
80. .	07	07	07	07	07	09	07	08	07	kinest
81. .	05	07	09	09	05	08	08	10	07	verbal
82. .	05	05	04	08	05	05	04	07	06	exist
83. .	04	04	03	07	04	05	06	06	05	verbal
84. .	06	07	07	07	05	10	07	08	08	music
85. .	08	07	08	10	07	10	09	09	08	kinest
86. .	08	07	06	07	04	05	05	08	06	natural
87. .	04	05	08	08	07	07	07	08	06	logic
88. .	04	06	05	06	02	09	05	10	06	intrap
89. .	05	06	05	04	02	09	07	06	05	kinest
90. .	10	09	09	08	04	07	06	07	06	natural
91. .	07	08	09	07	07	07	07	09	06	music
92. .	10	09	09	08	04	07	06	07	06	natural
93. .	06	04	05	07	04	07	05	07	06	intrap
94. .	08	07	05	07	05	06	05	06	08	visu
95. .	06	06	07	07	03	04	09	08	07	verbal
96. .	06	08	08	07	08	10	08	09	09	visu
97. .	07	06	100	09	02	09	09	08	08	logic

Table 21 Distribution of the different intelligences

Distribution of the different intelligences

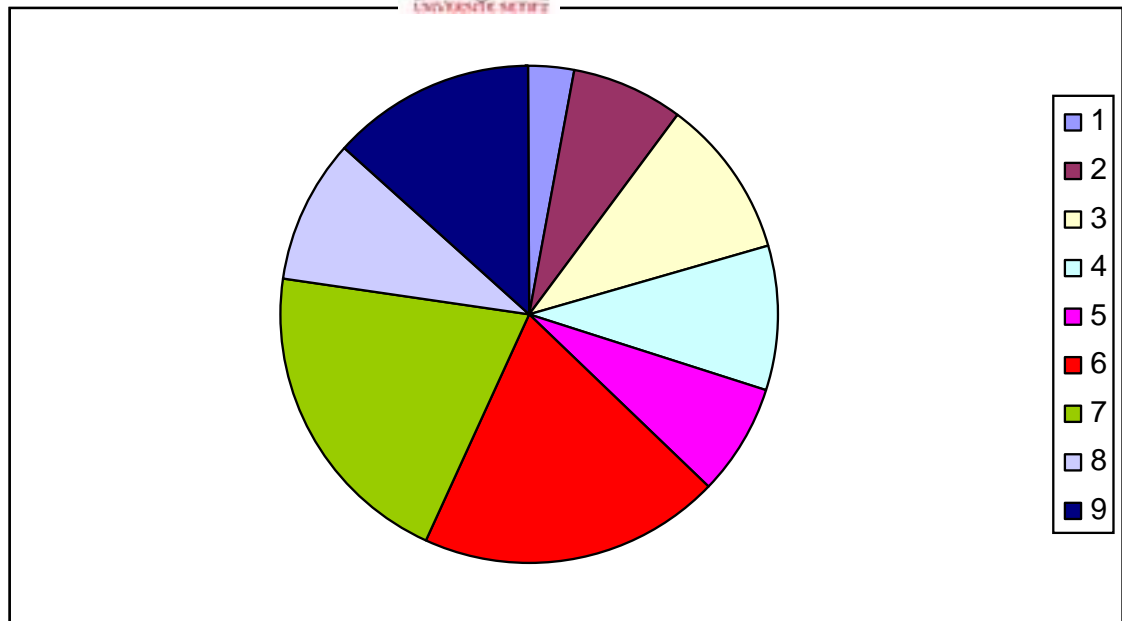


Figure 11 Distribution of the different intelligences

- 1 represents the pupils who have Naturalistic Intelligence
- 2 represents the pupils who have Interpersonal Intelligence
- 3 represents the pupils who have Musical Intelligence
- 4 represents the pupils who have Visual Intelligence
- 5 represents the pupils who have Existential Intelligence
- 6 represents the pupils who have Logical Intelligence
- 7 represents the pupils who have Intrapersonal Intelligence
- 8 represents the pupils who have kinesthetic Intelligence
- 9 represents the pupils who have Verbal Intelligence

#### Pupils' Predominant Intelligences

Predominat Intelligence	Girls	Boys	Total
-------------------------	-------	------	-------



Naturalistic Intelligence	05	00	03
Musical Intelligences	05	02	07
Logical Intelligence	06	04	10
Existential Intelligence	06	03	09
Interpersonal Intelligence	07	00	07
Kinesthetic intelligence	13	06	19
Verbal Intelligence	17	03	20
Visual Intelligence	06	03	09
Intrapersonal Intelligence	11	02	13
Total	74	23	97

Table 22 Pupils' Predominant Intelligences

Percentages of the various intelligences

Predominat Intelligence	Girls	Boys	Total
Naturalistic Intelligence	03.09 %	00 %	3.09%
Musical Intelligence	5.15 %	02.06 %	7.21%
Logical Intelligence	06.18 %	04.12 %	10.30%
Existential Intelligence	06.18 %	03.09 %	9.27%
Interpersonal Intelligence	07.21 %	00 %	7.21%
Kinesthetic intelligence	13.40 %	06 %	19.58%
Verbal Intelligence	17.52 %	03.09 %	20.61%
Visual Intelligence	06.18 %	03.09 %	9.27%
Intrapersonal Intelligence	11.34 %	02.06 %	13.40%

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Table 23 Percentages of the various intelligences

### Percentages of the various intelligences

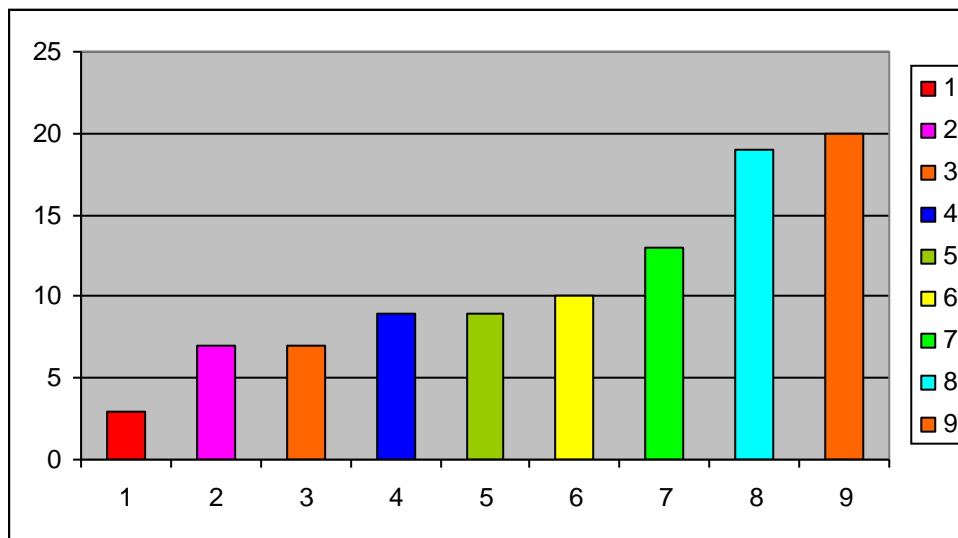


Figure 12 Percentages of the various intelligences

- 1 Naturalistic Intelligence percentage
- 2 Interpersonal Intelligence percentage
- 3 Musical Intelligence percentage
- 4 Visual Intelligence percentage
- 5 Existential Intelligence percentage
- 6 Logical Intelligence percentage
- 7 Intrapersonal Intelligence percentage
- 8 kinesthetic Intelligence percentage
- 9 Verbal Intelligence percentage

The above figures revealed that 20.61% of our population had verbal intelligence. 19.58% had kinesthetic intelligence. 13.40% had intrapersonal intelligence. 10.30% had

logical intelligence. Existential Intelligence and Visual Intelligence got 9.27%. Musical Intelligence and interpersonal intelligence got 7.21%. Naturalistic intelligence got 3.09%

Distribution of the different intelligences along with English language marks

Name	Eng M	Nat	Musi	Log	Exis	Inter	Kin	Ver	Intra	Vis	Stre
	11.60	05	06	07	08	06	07	08	07	07	Kinest
	17..90	09	08	08	09	04	07	07	10	09	intrap
	14.10	05	06	09	07	06	07	05	06	08	kinest
	13.50	08	08	07	08	06	09	08	08	08	kinest
	08.40	03	06	06	04	04	06	04	04	02	logic
	07.10	05	05	08	06	05	06	07	07	05	logic
	14.60	06	06	07	07	08	07	07	08	07	interp
	14	04	02	05	06	03	05	02	02	03	exist
	14.30	06	09	09	08	09	09	08	10	09	intrap
	11	07	08	05	08	06	08	07	06	07	kinest
	14	07	07	05	08	07	08	07	06	07	kinest
	09	06	07	06	07	06	09	06	06	05	kinest
	06.40	06	07	06	07	06	09	08	06	07	kinest
	16	06	07	06	07	06	09	09	06	07	verbal
	15.70	05	07	08	09	08	08	06	06	07	exist
	13	06	06	05	07	07	06	06	07	04	interp
	17.70	08	04	05	06	03	07	04	10	04	intrap
	12.40	06	08	08	07	04	09	07	07	05	kinest
	16	06	09	08	09	10	09	10	07	09	verbal
	12.80	07	05	02	09	03	09	06	09	09	visual
	16.30	04	02	06	06	06	05	05	05	07	visual
	14	07	05	08	09	06	05	07	06	07	exist
	07.70	07	08	08	09	07	10	07	09	08	kinest
	05.50	05	07	08	08	06	10	05	08	07	kinest
	07.90	04	04	04	08	05	05	06	06	10	visual
	12.80	03	06	06	04	04	06	04	04	02	music
	11.60	05	07	08	09	08	04	09	08	07	verbal
	10	08	06	07	10	04	07	06	07	07	exist

09.90	05	04	07	06	06	07	07	05	06	verbal
12.40	05	07	06	07	08	08	05	06	05	interp
14.80	09	09	08	08	05	09	07	07	05	music
15.70	08	06	06	08	07	10	09	07	06	kinest
12.5	06	07	06	08	05	07	06	06	07	exist
13.80	04	08	05	09	08	08	07	06	06	exist
15.60	06	09	08	09	10	09	09	09	06	interp
12.50	05	03	03	03	02	04	04	05	06	visual
11.60	07	06	09	07	08	06	03	10	07	logic
10	07	07	06	05	09	05	04	09	05	intrap
07..90	08	09	06	09	07	08	07	07	09	visual
06.60	08	09	07	07	07	08	08	09	07	music
06.60	07	08	09	08	06	08	04	10	07	intrap
11.10	06	08	07	07	07	07	04	07	06	music
9.30	07	08	09	07	09	07	04	09	06	logic
15.90	04	06	04	05	03	07	07	05	02	verbal
15.90	08	06	07	08	08	09	09	10	08	verbal
16.40	03	06	06	07	04	08	04	09	07	intrap
13.43	07	04	05	07	05	07	07	06	02	verbal
13.5	07	08	04	09	08	05	06	06	07	exist
15	08	07	08	04	05	10	09	09	08	verbal
08	08	09	08	09	09	10	10	08	09	verbal
18.20	06	08	07	08	07	09	09	07	09	verbal
14	06	06	07	08	07	07	07	06	04	verbal
12.60	02	04	03	05	04	05	02	04	02	kinest
13.80	03	02	05	04	01	03	05	08	04	intrap
14	08	08	09	08	06	08	07	08	10	visual
08	03	04	06	06	04	04	06	04	05	verbal
10.80	04	03	01	04	06	04	03	05	02	interp
13	07	05	05	05	07	06	06	06	05	interp
13.80	05	04	05	05	04	04	06	05	05	verbal
15.80	05	04	04	06	04	04	07	04	08	verbal
18.20	07	06	06	07	04	06	06	08	06	intrap
14	07	09	07	07	06	08	07	08	06	kinest
11	05	05	08	07	01	09	04	10	05	intrap
15	07	06	06	08	06	08	08	07	08	verbal

14.80	06	07	09	07	05	09	08	08	07	logic
11.06	05	05	03	07	05	06	08	07	08	verbal
15.60	06	08	06	09	06	08	10	07	09	verbal
14	05	04	05	07	04	05	06	07	04	intrap
12.53	04	04	07	07	06	05	06	06	05	logic
08.40	06	06	07	09	06	05	07	05	06	exist
08.40	07	08	07	07	08	09	08	08	08	kinest
16.60	03	03	08	05	02	07	07	06	06	logic
12	03	03	02	04\	07	05	04	05	03	interp
13.66	03	03	03	05	04	03	04	05	04	intrap
14.73	04	02	01	05	06	06	04	06	03	kinest
13.60	07	08	08	08	05	06	07	04	06	logic
13.60	05	08	09	07	07	09	07	08	09	visual
13.80	06	08	05	07	07	08	06	03	05	music
05.20	04	05	08	09	07	09	05	08	05	kinest
1070	07	07	07	07	07	09	07	08	07	kinest
18	05	07	09	09	05	08	08	10	07	verbal
14.60	05	05	04	08	05	05	04	07	06	exist
15.70	04	04	03	07	04	05	06	06	05	verbal
14.20	06	07	07	07	05	10	07	08	08	music
15.70	08	07	08	10	07	10	09	09	08	kinest
12.60	08	07	06	07	04	05	05	08	06	natural
18.30	04	05	08	08	07	07	07	08	06	logic
12.60	04	06	05	06	02	09	05	10	06	intrap
18.30	05	06	05	04	02	09	07	06	05	kinest
13.13	10	09	09	08	04	07	06	07	06	natural
15	07	08	09	07	07	07	07	09	06	music
13.5	10	09	09	08	04	07	06	07	06	natural
11.	06	04	05	07	04	07	05	07	06	intrap
14.30	08	07	05	07	05	06	05	06	08	visu
19.30	06	06	07	07	03	04	09	08	07	verbal
13..90	06	08	08	07	08	10	08	09	09	visu
17	07	06	100	09	02	09	09	08	08	log

Table 24 Distribution of the different intelligences along with English language marks



Comparison of the marks of the high English language achievers with their Verbal/Linguistic Intelligence level

Name	Verbal Intelligence	English Language Mark
1. .	08	11.60
2. .	07	17..90
3. .	05	14.10
4. .	08	13.50
5. .	04	08.40
6. .	07	07.10
7. .	07	14.60
8. .	02	14
9. .	08	14.30
10. .	07	11
11. .	07	14
12. .	06	09
13. .	08	06.40
14. .	09	16
15. .	06	15.70
16. .	06	13
17. .	04	17.70
18. .	07	12.40
19. .	10	16
20. .	06	12.80
21. .	08	16.30
22. .	07	14
23. .	07	07.70
24. .	05	05.50
25. .	06	07.90
26. .	04	12.80
27. .	09	11.60
28. .	06	10
29. .	07	09.90
30. .	05	12.40
31. .	07	14.80
32. .	09	15.70



33. .	06	12.5
34. .	07	13.80
35. .	09	15.60
36. .	04	12.50
37. .	03	11.60
38. .	04	10
39. .	07	07..90
40. .	08	06.60
41. .	04	06.60
42. .	04	11.10
43. .	04	9.30
44. .	07	15.90
45. .	09	15.90
46. .	04	16.40
47. .	07	13.43
48. .	06	13.5
49. .	09	15
50. .	10	08
51. .	09	18.20
52. .	07	14
53. .	02	12.60
54. .	05	13.80
55. .	07	14
56. .	06	08
57. .	03	10.80
58. .	06	13
59. .	06	13.80
60. .	07	15.80
61. .	06	18.20
62. .	07	14
63. .	04	11
64. .	08	15
65. .	08	14.80
66. .	08	11.06
67. .	10	15.60
68. .	06	14

69. .	06	12.53
70. .	07	08.40
71. .	08	08.40
72. .	07	16.60
73. .	04	12
74. .	04	13.66
75. .	04	14.73
76. .	07	13.60
77. .	07	13.60
78. .	06	13.80
79. .	05	05.20
80. .	07	10.70
81. .	08	18
82. .	04	14.60
83. .	06	15.70
84. .	07	14.20
85. .	09	15.70
86. .	05	12.60
87. .	07	18.30
88. .	05	12.60
89. .	07	18.30
90. .	06	13.13
91. .	07	15
92. .	06	13.5
93. .	05	11.
94. .	05	14.30
95. .	09	19.30
96. .	08	13..90
97. .	09	17

Table 25 Comparison of the pupils'marks

From the figures above we noticed that 51 pupils of our population (52.57 %) have a high level of verbal intelligence (7 marks and more on McKenzie's MI inventory).The number of pupils whose English language marks match with their predominant intelligence is 41.This means that 41 out of 51 verbal pupils (80.39%) have marks that



do match with their predominant intelligence. This shows that there is a strong relationship between English language achievement and verbal intelligence.

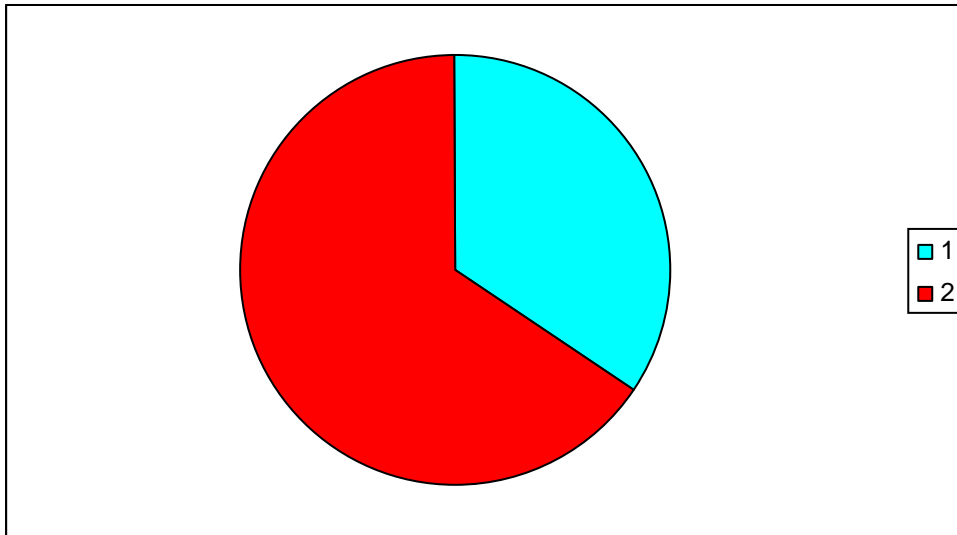


Figure 13 Verbal intelligence

1 represents the students who have strong verbal intelligence.

2 represents the rest of the population.

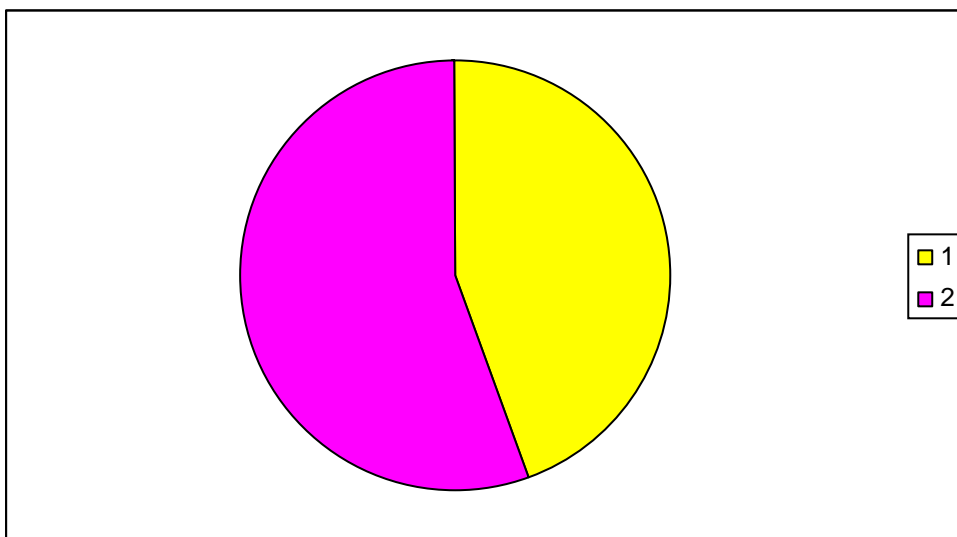


Figure 14 English Marks Vs Predominant Intelligence

1 represents the students whose English marks match with their predominant intelligence.

2 represents the students who have strong linguistic intelligence.

## 6.11 MI and Poetry in the Algerian Secondary School

The second part of the research is an attempt to prove that poetry, especially fables, can facilitate the comprehension of MI materials and enhances multiple intelligences. We provided a secondary-school teacher with original MI lesson plans and set her to implement them with her pupils to check their efficiency. Two questionnaires were designed to support the operation.

### 6.11.1 The Purpose behind the Use of Poetry in Algeria

Traditionally and still up to now, very few poems are included in the textbooks for secondary- school students in Algeria. Nonetheless, most of the teachers would not give much importance to this teaching point and would skip the lesson in a very short time. Some teachers simply ignore the poem and shift to something else for they tend to believe poetry is less important than the four traditional skills. The role of poetry is unfortunately underestimated.

As we know, most of the materials written for Algerian EFL classes focus on some topics for grammar or for communicative competence and are backed up with the competency based approach. Being exposed to the kind of material for a long period of time, pupils are bound to become tired of them for lack of intellectual inspiration and personal interest. But poems, especially fables, are terrific materials for the EFL class. They can turn the dullness into excitement, for they can offer many benefits: pleasures of sound, rhythm and meaning, imagery and symbolism, feeling, thoughts and morals. With the teaching of fables, students can be motivated not only to learn English but also 'to appreciate the deeper dimension and exquisiteness of the language.' Poetry in general does foster the aesthetic sense of students and develop their intelligences. Reading them

would broaden the pupils' minds make and urge them to look deep into themselves. It is the kind of the intellectual process that boosts the brain, enhances one's multiple intelligences and makes the lifelong reader. Therefore, the poems in textbooks should not be regarded as empty teaching points; on the contrary, they should be tackled with care.

As an attempt to enlighten the Algerian teacher about poems, we have included in this work a series of fables along with original MI oriented activities entitled ' Develop your intelligences with the piercing star' (Appendix E).

### **6.11 .2 Description of the Questionnaires**

To achieve our work, we designed two questionnaires in order to get feedback from the pupils and their teacher. The first questionnaire is a pupil feedback survey framed quantitatively so as to allow for statistical analysis of the Responses. We thought of getting anonymous feedback on the lessons because pupils naturally are anxious about giving frank comments to a person in a position of authority. The questionnaire consists of fifteen questions (appendix C) which aim at evaluating the fable MI based lesson and their teacher's performance as well. The second questionnaire (Appendix D) is a teacher feedback survey which aims at getting a commentary on the part of the teacher about the lesson she presented.

### **6.11.3 Administration of the Questionnaires**

A Secondary School teacher and I administered and interpreted the pupil feedback questionnaire to thirty four pupils. The instrument, as mentioned before, was used in order to collect information about the efficiency of the materials taught and the performance of the teacher. While explaining the content of the survey, we had to use the mother tongue to be sure all the pupils understood the questions.

#### 6.110.4 Population and Sample

Participants in this study consisted of second-year secondary school pupils at Malika Gaid Secondary School, located in the center of Sétif. A total of 34 students answered the questionnaire.

#### 6.11.5 Procedure

The students had to answer fifteen questions which constitute the questionnaire by placing a check on the appropriate line of each question and in the right column.

Example:

Pupil Feedback Questionnaire

	Strong agreement	Some agreement	Little agreement	No agreement
1-The content of the poem is interesting.				

#### 6.11.6 Summary of Results

The pupils' responses to the questionnaire are as follows:

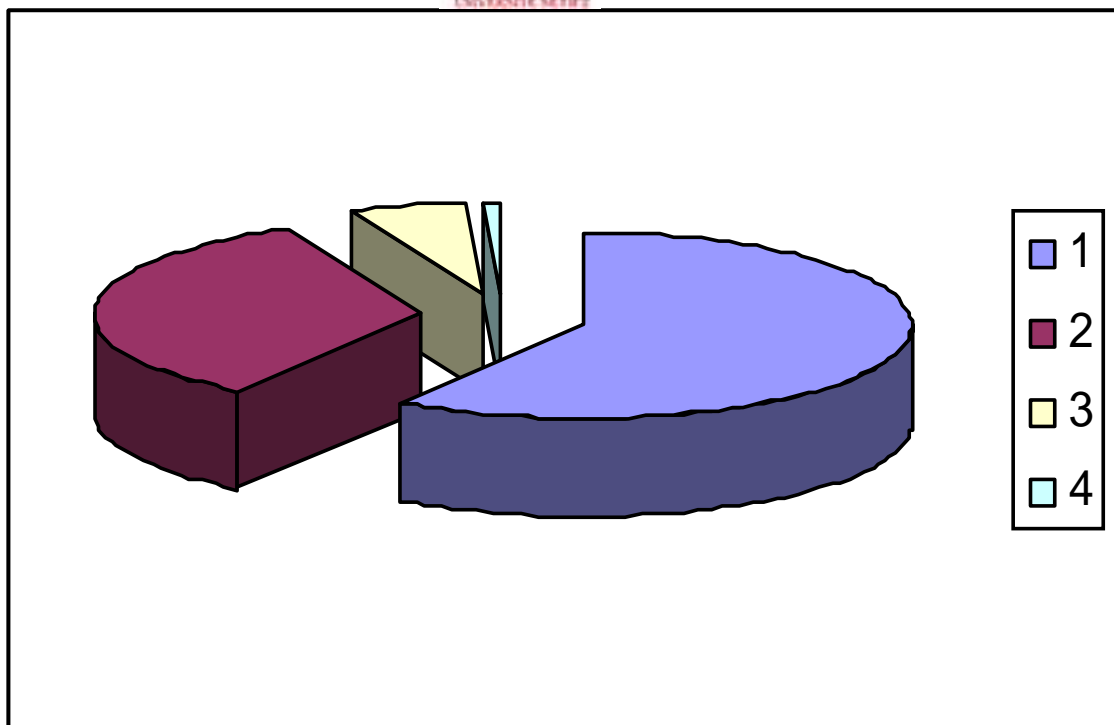


Figure 14 pupils' responses to the questionnaire

1 = Pupils who responded with 'strong agreement' to the questionnaire

2= Pupils who responded with 'some agreement'

3= Pupils who responded with 'little agreement'

4= Pupils who responded with 'no agreement'

In percentages we get:

Strong agreement	60.38
Some agreement	29.72
Little agreement	06.86
No agreement	02.54

Note: These figures represent the degree of appreciation of the teacher's performance and the comprehension of the lesson. Detailed figures are to be found in appendix C

Concerning the teacher feedback questionnaire, the teacher point of view was as follows:

The MI materials proved to be very efficient. Pupils were very motivated because the teaching environment was totally new: they worked in groups, moved around and exchanged ideas. The fable along with the pictures sustained interest the pupils and created a relaxing atmosphere. The moral behind the fable might be difficult to grasp. Pupils are not used to such material. The teacher's answers can be found in Appendix D.

### Suggestions and Recommendations

Theoretically speaking, learning is more productive when pupils' multiple intelligences are taken into account. In the Algerian context, it is doubtlessly very difficult to match a teacher's instructions to every pupil's needs and strengths. This may be explained in terms of available teachers, rooms and administrative considerations – not in terms of the teacher's competencies. Then, how can we use the information revealed by McKenzie's inventory? We would advise teachers to provide a variety of learning experiences to accommodate the various multiple intelligences that exist in the average classroom. Then, all students will have at least some activities that appeal to them based on their multiple intelligences, and they are more likely to be successful in these activities. The feeling of success is bound to turn into a motivating factor for additional learning of English.

Teachers are to bring some practical changes in their classrooms. They should bear in mind that:

-visual learners learn primarily with their eyes. Thus, the use of resources that must be read or seen is strongly recommended: posters, the chalkboard, books, transparencies

and computer monitors if available. written assignments are the preferred mode of evaluation for such type of learners. It is wise for teachers to take this into account. In Algeria, the problem does not exist at all since almost all the evaluation (unfortunately) is done in writing.

-For the kinesthetic learner, teachers should design hands-on activities. When provided with manipulative materials that are touchable and moveable, these learners will achieve very satisfactory results .These learners are physical people who need to take breaks and move around. This type of learning combines physical actions with linguistic responses and are very helpful for tying language to actions.

-Interpersonal involves group learning and this latter is based on interpersonal skills. Not only do students learn while speaking to others in a "true and authentic" setting, they do develop English speaking skills while reacting to others.

-Logical / Mathematical involves grammar analysis which falls into this type of learning style. Many teachers believe that in the communicative approach we are not allowed to teach grammar. It is wrong; grammar analysis which has little to do with communicative ability is to be dealt with from time to time.

-Musical is the ability to recognize and communicate using melody, rhythm, and harmony. This type of learning is sometimes underestimated in the Algerian EFL classrooms. If we keep in mind that English is a very rhythmic language because of its tendency to accent only certain words we will recognize that music plays a role in the classroom as well.

-Intrapersonal is learning through self-knowledge leading to the understanding of motives, goals, strengths and weaknesses". This intelligence is essential for intrinsic motivation and long-term English learning. Students with this intelligence are able to deal with underlying issues that can improve or hamper English learning.

-Naturalistic is the ability to recognize elements of and learn from the natural world around us. It is similar to visual and spatial skills; Environmental intelligence will help students master English required to interact with their environment.

-Verbal / Linguistic is the explanation and understanding through the use of words. In Algeria, it is the most common means of teaching. While teaching to other types of intelligences is extremely important, this type of teaching focuses on using language and will continue to play the primary role in learning English. However, teachers are urged to encourage their pupils to broaden their favorite learning channel by applying the other channels (intelligences) whenever possible. Teachers are to provide materials that appeal to the various intelligences .Hence, as an example, the kinesthetic learner should engage in activities that involve environmental or musical processing.



## Chapter Seven

### Pedagogical Implications

The significance of this study can be summarized as follows:

1. To make policy makers, teachers, inspectors, textbook writers and parents understand that individuals have different intelligences and aptitudes for learning.
2. To Apply MI theory requires from educators the use of a variety of teaching methods to accommodate and stimulate pupils' multiple intelligences.
3. To use Multiple Intelligences Theory as (a) a guide to develop classroom activities that address various ways of learning and knowing, (b) a tool to help learners identify and better understand their own strengths and learning preferences, and (c) a guide to provide our pupils with different ways to learn and to demonstrate their learning

The pedagogical implications of our research are practically and socially oriented. The practical implications answer the following questions:

- 1-What outcomes and implications for teaching practice have we reached?
- 2- What changes to practice should be applied as a result of this research?

In our theoretical part of this research, we dealt in detail with the term "learning". We decided it is not just a quantitative increase in knowledge, memorization or the acquisition of facts and procedures which can be retained and / or used in practice. It is not acquiring just skills as advocated by the competency approach used nowadays in Algeria. Learning is greater than that, and deserves a respectful, genuine and appropriate definition. It is because of this traditional definition that parents, teachers and learners alike, fail to

accomplish their tasks appropriately. In our research we have tried to redefine this concept and give it its deserved value in order to enable teachers to correct their teaching methods to meet the needs of effective teaching and learning. We have defined the term "learning" as " the maximal activation of the human intelligences to discover the systems and rules that govern the natural and human resources and make use of them for the benefit of mankind. Learning is natural curiosity which leads to creativity. It is a research operation".

The words in this definition, such as: "the maximal activation, human intelligences, to discover, natural curiosity, creativity and a research operation" constitute the key to true learning. They redirect the learner and teacher to the following concepts which provide effective teaching guidance:

- § Learning is related to intelligence and thus, to the brain. Teachers are not to spoon-feed it or make their students memorize it. They have to set their students to engage their brains, to activate them to the maximum and search for meaning. Learning becomes learner, not teacher centered.
- § Since the "nest" of learning is the brain, teachers should remember that this brain is equipped with the necessary means to learn. It is naturally curious and "designed" to discover new facts. Teachers with their teaching methods are turning it passive and lazy. They should orient their teaching toward providing students with a methodology and environments which urge the learner to respond to their curiosity with critical thinking and innovation.

Furthermore, teachers should bear in mind that learning is a systematic process which is described as follows:

## LEARNING

1. Curiosity: Before starting his lesson, teachers should provide students with an atmosphere/environment conducive to curiosity. They should remember that learning is enhanced by challenge and inhibited by threat
2. Experience: Teachers should involve the students in this environment and foster them to gain experience. Involvement and experience are a crucial part of the learning process.
3. Knowledge/Skills: Students with the help of their teacher are going to elicit knowledge and skills from experience. The role of the teacher becomes a guide and a co-learner.
4. Memory: The teacher sets pupils to practise knowledge/Skills through intelligently designed activities so that students can memorize them. These activities should be in the form of brain exercises to improve memory. They should include novelty, neurobics (using one's faculties in an unusual way) and learning new skills. Healthy Habits that improve memory might include regular exercise and managing stress.
5. Eruditeness: This step represents profound scholarly knowledge. It is reached only when the above mentioned steps are met

6. Effective Action and Creativity: This element represents the ultimate goal of education and learning.

This implies that, to be fruitful, any teaching operation should go through the above steps. If teachers take care of them, lessons will take care of themselves.

While dealing with learning methodology we clarified that the different approaches which have been used since the 20th Century do complete one another. We suggested "A Weatherall Approach to Foreign Language Teaching"; an original approach we called "ECPTA" (Ending Classroom Prescribed Teaching Approaches". It focuses on the teacher's flexibility, autonomy, imagination and creativity. Its main implications include:

§ Before allowing teachers to face the class, Educational Authorities should provide them as much information as possible about education findings of those who study language scientifically: linguists, psychologists, sociolinguists and neurologists. An appropriate training (pre-service and in-service trainings) will allow the teacher to understand himself, his students and the materials he is to deal with. He will be able to do research and solve the pedagogical problems he would meet in class.

§ The well trained teacher should remember be the only person to decide what method/technique to use when in class. His role should not be limited to presenting lessons. He should not be a slave of the textbook or the syllabus. He should play his full role as responsible for the language teaching operation: understanding students ( their learning styles), presenting lessons according to his students' level and preferences, guiding evaluating, and improving. He is not to rely so much on the inspector or Headteacher's recommendations No one can deny the fact this teacher knows his students and their preferred channels of learning better than the most efficient scholar in the world.

He is the only one who knows what motivates his students, what demotivates them; what they like and what they dislike. He is part of his students and the students are part of him. They are all co-learners.

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

§ .The MI nine intelligences are so much needed to productively function in schools. As discussed in our theoretical part, traditional education systems typically place a strong emphasis on the development of verbal and mathematical intelligences. The implementation of MI implies that teachers should recognize and teach to a broader range of talents and skills. We have suggested new intelligences such as temporal, survival and the 99 names of Allah. These can be incorporated in lesson plans or syllabus design to cover the maximum of learners and ensure better results.

§ Another implication is that teachers should identify their student's multiple intelligences using the inventories we suggested or the ones we can find online. Knowing student's preferred channels of learning will allow the teacher to better understand them. In addition to that, the teacher will be in a better position to structure the presentation of material in a style which engages most or all of the intelligences. For example, when teaching about the Algerian revolutionary war, a teacher can make use of battle maps (visual intelligence), play revolutionary war songs (musical intelligence), organize role plays, and have the students read a book/story about life during war (linguistic intelligence) period. This kind of presentation does excite students about learning and at the same time enables the teacher to reinforce the same material in a variety of ways. It is only by activating a wide assortment of intelligences that teaching can facilitate and ensure a deeper understanding

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

§ Assessment was one of our main concerns because its misuse is causing "disaster" in class. We asserted that a significant amount of experimentation in new methods of assessment is in progress and much of the effort is targeting authenticity.

- Very significant amount of experimentation in new methods of assessment is in progress. Much of the effort is targeting authenticity. The Algerian education system has stressed the importance of developing and evaluating mathematical and linguistic intelligences. Most teachers test memory instead of understanding and often base student success only on the measured skills in those two intelligences. We explained that this emphasis is unfair. As students do not learn in the same way, they cannot be assessed in a uniform fashion; it is illegal. Teachers must seek to assess their students' learning in ways which will give "an accurate overview of their strengths and weaknesses". They should design an assessment which assesses the nine intelligences a student might possess. Teachers can use Armstrong's assessment tools while dealing with this skill. Among these tools we would cite: anecdotal records, work samples, audio-cassettes, videotape and student journal. Emphasis is to be put on constructing a qualitative picture of the student's assimilation of the material. The variety of activities suggested below is meant to guide the teacher in designing an authentic assessment.

In our practical part, we have demonstrated that linguistic intelligence plays an important role in learning languages. This implies that teachers are to develop it in students to reach better results. They can activate it by the spoken word, by reading (novels and poetry), and by writing their own thoughts and ideas. We have also demonstrated that MI theory can enhance English learning. So the teacher is urged to design instruction around this theory. This entails an analysis of the lesson plans to ascertain which intelligences are being utilized within the different activities. The teacher should create a balance within these activities so no one of the multiple intelligences is over emphasized. Review or remedial work should include different intelligences to give the students another way of practising the material. Hence, giving the student an opportunity to develop his weak intelligences.

Teaching poems, especially fables, constitute terrific materials for the EFL class. They can turn the dullness into excitement and offer many educational benefits: pleasures of sound, rhythm and meaning, imagery and symbolism. Our research has confirmed the fact that teaching fables does motivate students to learn and reach better English proficiency. The implication of this finding is to foster teachers to make intermittent use of poetry whenever planning lessons. Fables, as we suggested, would be more appropriate to secondary school pupils. The series of fables along with the original MI oriented activities included in the Appendix would be an effective example to follow.

Besides the above lines, our research has also some social implications and answers the following question:

- 1-What will be the impact of this research on society, particularly on parents?
- 2-How should parents consider their children's school achievement and how to get involved in its improvement?

Parents should understand that there is no bright and stupid pupil. If they happen to get angry while teaching their children at home and accuse them of stupidity and ignorance, they are totally wrong. They must understand that if their children do not understand, it is because the parents' teaching style does not match with their children's. These parents are to identify their children's preferred channels of learning and dispense their instructions accordingly. They should get in touch with their pupils' regular teachers and exchange ideas. Their role is so important because the teacher with more than forty five students in class has little chance to succeed. Educators should remember that the quote " if the pupil is bad the teacher is worse" does apply very well in this context.

Before tackling ways of fostering our findings along with multiple intelligences typology of activities which caters for Gardner's nine ways of knowing, and back up the research implications, we should remind teachers and educators that performance objectives are to be carefully expressed. They constitute the platform of and the sine qua non for any successful teaching operation whatever the approach or method which supports class instructions. Ellen Weber (2005:143) suggested that several critical elements typically do characterize clear performance objectives. E. Weber cited some inquiries for good learning objectives:

- 1.Are objectives measurable? \_\_\_\_\_
- 2.Do objectives state observable learner performances? \_\_\_\_\_
- 3.Do objectives outline conditions under which behaviors occur? \_\_\_\_\_
- 4.Are objectives stated with prescribed learner performances in mind? \_\_\_\_
- 5.Are objectives written with an action verb such as: list, compare, illustrate? \_\_\_\_
- 6.Do objectives describe the minimum expectations for all students? \_\_\_\_\_
- 7.Are objectives stated in as few words as possible? \_\_\_\_\_
- 8.Do objectives begin with "The learner will..." (TWL)?



9. Are objectives listed in brief bullets? \_\_\_\_\_
10. Does each lesson plan/file use one, two or three well stated objectives? \_\_\_\_\_
11. Does each objective describe one performance only? \_\_\_\_\_
12. Will objectives be followed by specific, appropriate assessment activities? \_

Now that we have clarified the MI objectives, we believe it is necessary to equip the teacher with adequate information to help him or her deal with MI based activities in an efficient way. We suggest Rolf Palmberg's eight-step activity plan for teachers (Wednesday, April 01, 2009 Developing Teachers.com) A website for the developing language teacher which should imperatively be discussed in pre-service and in- service training sessions to ensure satisfactory results.

### Step One

Identify your own intelligence profile. There are several questionnaires available, one of the most comprehensive ones being Walter McKenzie's Survey published on the internet (McKenzie 1999). Another fairly comprehensive one (specifically aimed at language teachers) is the one by Rosie Tanner (2001).

### Step Two

Identify your learners' intelligence profiles. Again, there are several questionnaires to be found for this purpose, e.g. the one in Berman (1998). Another way of identifying learners' intelligence profiles is through observation, using e.g. Thomas Armstrong's checklist which is available on the internet (Armstrong 2000).

### Step Three

Study the list of activities, (methods of work, types of practice, classroom techniques), presented in Berman's book (1998), and try to categorize them according to the intelligence they cater for. Which of them are best suitable for foreign-language teaching in general and which are best suitable for your learners in particular?

#### Step Four

Study the language-skills activities chart suggested by Tanner (2001). Select one of the four language skills (e.g. reading) and cut out the list of suggestions made for that particular language skill for each of the eight different intelligences contained in the chart. Next, prepare a similar list of activities for each intelligence, but this time concentrating on another language skill (e.g. listening). When you have finished, compare your list of activities with Tanner's list of suggested activities.

#### Step Five

Examine some foreign-language teaching workbooks. Try to identify a number of typical exercises or activities for each of the nine intelligences. How many can you find that cater for five or six different intelligences at the same time? Are there specific intelligences that are often linked to one another, or, to put it differently, are there specific intelligences that can often be catered for through a single type of exercise or activity?

#### Step Six

Reflect on your most recent foreign-language lesson. Assuming that you had to do the same lesson again, this time with a class consisting of, say, only bodily-kinesthetic learners, what would you do differently? Why?

#### Step Seven

Select a teaching topic for a specific learner group. Write down the topic on a large sheet of paper and draw a circle around the word. Make notes of all tasks, texts, exercises, methods of work, aids, activities, songs etc. that relate to the given topic and that you come to think of. Do not mind if they appear unrealistic or impracticable. Next, arrange your ideas according to the intelligence you think they cater for the best. (If you are a spatial learner yourself, you might want to draw nine new circles around the central circle and draw lines from the central circle to each of the new circles. Label the new circles according to each intelligence, and write down your ideas into the appropriate circles; idea based on Armstrong 1999). Now take an overall look at your sheet of paper. Are there activities that can be combined? Are there activities that can be modified to fulfill the teaching objectives more efficiently? Are there activities that for some reason do not seem suitable for the present context? Next, rearrange the remaining, possibly modified ideas and activities into a logical order (from old to new; from easy to more difficult).

### Step Eight

Plan a new language lesson the way you normally do, using, if applicable, the ideas you came up with during Step Eight. Then answer the following questions (modified from Nicholson-Nelson 1998) and make adjustments into your lesson plan wherever necessary:

- (a) Have you provided the learners with opportunities to speak, listen, read and write?
- (b) Have you included numbers, calculations and/or activities requiring critical thinking?
- (c) Have you included pictures, graphs and/or art?
- (d) Have you included activities involving movement?
- (e) Have you included music and/or rhythms?
- (f) Have you included pair work and/or group work?
- (g) Have you provided the learners with private learning time and/or time for reflexion?

- (h) Have you included categorization tasks and/or arranging exercises?
- (i) Have you helped the learners consider the topic/theme/grammar point(s) of today's lesson in relation to a larger context?

### 7.1 Linguistic Intelligence

Students who display a fascination for words and their manipulation, who enjoy expressing themselves orally and in writing as well as listening to stories are likely to have well developed linguistic intelligence. Story telling provides the ideal means of catering for these students in class. In our attempts to reduce «Teacher Talking Time» (TTT), we tend to overlook this and put emphasis on the students doing all the talking. Stories are above all for enjoyment. As teachers of English we should exploit them for language but 'we must take care not to milk them dry and kill the joy.' Dealing with new lexical items (vocabulary) as they arise gives us the chance to present it in context, elicit its meaning, and then give the students the opportunity to transfer it to another setting. It helps to break the story up into more manageable chunks and enables them to involve the class more actively in the story telling process. Moreover, a few words unknown to the reader can "add effectiveness and local color to a narrative".

As a post-reading activity, we can cut up the story into paragraphs for the students, working in groups or pairs, to put it in order. Another possibility is to omit the ending of the story when telling it to the class, then to invite the learners, again in groups or pairs, to predict the conclusion. After listening to the various suggestions they come up with, students can compare their suggestions with the original ending which teachers can display on an overhead transparency. Activities which foster this intelligence may include:

#### 1-Heart Idioms



Match the idioms on the left with the explanation on the right. There are more explanations than idioms, so make sure you select the correct ones!

- |   |   |
|---|---|
| 1- You are a man after my own heart.                              | a-Don't be discouraged.                                       |
| 2- I see you've had a change of heart.                            | b-Don't stop loving me.                                       |
| 3-My heart goes out to you.                                       | c-I can see you tried very hard.                              |
| 4-You've got a heart of stone.                                    | d-I feel you genuinely care for me                            |
| 5-Please don't lose heart   | e- I know you're determined to let nothing stand in your way. |
| 6-You clearly put your heart and soul in it.                      | f-I love you from a distance.                                 |
| 7-You've clearly set your heart on it.                            | g-It's clear you no longer feel the same way.                 |
| 8-the trouble with you is that you wear your heart on you sleeve. | h-We have the same taste.                                     |
| 9-I feel your heart's just not in it.                             | i-We both love the same person.                               |
| 10-I know you've got my best interests at heart.                  | j-You can't hide your feelings.                               |
|   | k-You can't show your feelings.                               |
|   | l-You don't seem to be well motivated                         |
|   | m-You don't seem to have any feelings                         |
|   | n-You have my sympathy.                                       |

Answers:

1-h / 2-g / 3-n / 4-m / 5-a / 6-c / 7-e / 8-j / 9-h / 10-d /

2-Complete the following expressions:

- 1- As black as ..... coal
- 2-As blind as ..... a bat
- 3-As brave as..... a lion
- 4-As busy as ..... a bee
- 5-As cheap as ..... dirt
- 6-As clear as ..... crystal
- 7-As clear as ..... day
- 8-As cold as ..... any stone
- 9-As cunning as ..... a fox
- 10-As deaf as ..... a stone
- 11-As different as ..... chalk and cheese
- 12-As dry as..... a bone
- 13-As easy as..... ABC
- 14-As gentle as..... a lamb
- 15-As green as..... grass
- 16-As happy as..... a lark
- 17-As hard as..... a rock
- 18-As hard as ..... iron
- 19-As light as..... a feather

20-As miserable as ..... sin

21-As proud as.....a peacock

22-As quiet as .....a mouse

23-As stubborn as.....a mule

24-As white as..... snow

25-As wise as..... an owl

## 7.2 Kinesthetic Intelligence

The activity presented below is designed to cater for those of our students who learn through movement. First of all, here are six ways of starting a lesson or providing a break half-way through:

1- "Everybody stand up please. I'd like you to organize yourself according to the size of your shoes. The smallest foot on my left, the largest foot on my right... Now sit down and form a pair with the person next to you to work on the following activity..."

2-"Everybody stand up please. I'm going to read a list of adjectives and I'd like you to sit down when you hear an adjective that describes the way you are feeling".(If anyone is still standing when you come to the end of you list, then ask them to produce an adjective of their own.)

3-"Everybody stand up please. I'd like you to organize yourselves according to how many brothers and sisters you have. The smallest family on my left and the largest on my right....Now sit down and form a pair with the person next to you to work on the following activity."

4- "Everybody stand up please. I'd like you to sit down when I come to the time you went to bed last time." (Start calling out the time in fifteen-minute intervals from 8 o'clock onwards until everyone is seated.).

5- "Everybody stand up please. I'd like you to find the person whose birthday is closest to yours....Next sit down with that person to work on the following activity."

6- "Everybody stand up please. I'd like you to organize yourself alphabetically according to your first names (or family names).A on my left and Z on my right....Now sit down and form a pair with the person next to you."

We can also use songs or Jazz chants where students working in pair, clap or beat the rhythm of the utterance for each other as they repeat the song or the chant. This activity brings together word stress, sentence stress, contractions, linking and intonation.

The following activity FINDS SOMEONE WHO reinforces kinesthetic intelligence and is designed to practise phrasal verbs:

Circulate round the room to find people who can answer the following questions. Then make a note of their names and any extra details you can obtain to share with the rest of the group.

1-Who has bumped with someone famous (Find out who)?

2-Who could do with a holiday?

3-Who has recently taken a new hobby (find out what)?

4-Whose studies get them down (find out why)?

5-Who can't get by the money they earn each month?

6-who turned up late for school today (find out why)?

7-who has recently broken off a relationship?

8-Who was brought up by the sea (find out where)?

9-Who has turned down a marriage proposal?

10-Who has given up smoking?

11-Who can take off someone famous (find out who)?

12-Who puts off going to the dentist?



An ideal way, we believe, of catering for the kinesthetic intelligence (we would say all the intelligences) is through role- play. There follows a lesson plan based on a fable which contains an example of one such role- play.

- 1- Is it your duty to obey and believe what others say? Discussion.
- 2- Narrate the story (the poem, eg., Born to be Smart)
- 3- Pause after a given stanza and ask the students to predict what follows. What do you think the donkey is going to say?
- 4- Arrange the students in groups so that each student takes the part of an animal.

Such activity sets the kinesthetic learners to benefit from movement in the classroom and thus learn best.

### 7.3 Musical Intelligence

The use of songs in the classroom is a popular activity, particularly suitable for the end of a heavy working day or week. Teachers should vary the approach to make the activity a regular feature of their programme. To make it learner centered, let the students choose which songs they would like to cover instead of improving your own musical tastes. Three possible approaches are presented below:

#### 1 A Close Test

- a- General questions to test general comprehension
- b- Play the song
- c- Go through the answers
- d- Hand out the close test
- e- Play the song a second time

- f- Check the answers
- g- Sing the song together (optional)
- h- Discussion if the issues raised

## 2- Spot the Mistakes

- a- Hand out copies of the lyrics with deliberate mistakes
- b- Play the song for students to make the corrections
- c- Check the answers
- d- Sing the song together

## 3- A Dictation

- a- Pre-questions
- c- Play the song
- d- Go through the answers
- e- Play the song a second time pausing after each line
- f- Students call out the words and you board them
- g- If there are any missing words, repeat the process
- h- Sing the song together
- i- Follow- up activity (discussion or role play)

## 7.4 Interpersonal Intelligence

Whenever you introduce pair work or group work into the classroom, you cater for interpersonal intelligence. To avoid boredom, try to avoid a pair work activity followed by another pair work activity unless the learners change partners in between.

Activity:

Work in pairs, choose five questions from the list below to ask your partner, and then report back to the rest of the class with the findings. What single thing would most improve the quality of your life?

- 1- What is your greatest regret?
- 2- What are your readings at present?
- 3- When and where were you happiest?
- 4- What are your favorite musicians?
- 5- Who or what is the greatest love of your life?
- 6- What is the trait you most deplore in others?
- 7- If you could buy anything you wanted, what would you choose?
- 8- Where would you love to go on holiday, and why?
- 9- Which living person do you most despise?
- 10- On what occasions do you lie?

### 7.5 Logical-Mathematical Intelligence

Students who enjoy science subjects and working with computers are likely to have a high degree of logical-mathematical intelligence. Those people are problem solvers capable of both deductive and inductive reasoning. They appreciate precision and like organizing information by sequencing and prioritizing it. Guided discovery activities can be employed to elicit spelling rules instead of providing them. An example of this is presented below:

The -ing Ending Use the examples to work out the rules:

adding	budgeting	coping	digging	dyeing
dying	expecting	falling	fastening	feeling



forbidding	forgetting	lunging	marrying	marveling
meeting	offering	propelling	reading	robbing
sitting	swinging	wrecking	worrying	

- The infinitive remains unchanged when.....
- The final consonant of the infinitive is doubled when.....
- In two-syllable words the doubling only occurs when .....
- When the infinitive ends in -e, .....

Answers :

- When it ends with two consonants or two vowels followed by a final consonant.
- When it ends with one vowel followed by one consonant.
- When the stress falls on the second syllable.
- When the infinitive ends in -e , the -e is dropped

### Ordering Activities

Very often most of the ordering activities involve reasoning and logic. The following example will illustrate this:

How many mistakes?

Each sentence contains one, two or three deliberate mistakes. Circle the number of mistakes you can find, and then compare your answers with those of your partner to see whether you agree with each example .Example:

- |  |           |
|--|-----------|
| 1-Do professional player merit being paid a huge sums of money | 1/ 2 / 3  |
| 2-This new come to you from the BBC.                           | 1/ 2 / 3  |
| 3-You should given him an advice.                              | 1 / 2 / 3 |
| 4- A friends in needs are a fiend indeed.                      | 1 / 2/ 3  |

## 7.6 Spatial Intelligence

Students with a high degree of spatial intelligence tend to think in pictures more comfortable with maps, charts and diagrams enjoy drawing and /or doodling and are likely to make use of colored markers.

### Activity:

#### Lifelines

Lifelines can be used to provide an enjoyable and personal way of practising the past simple. Invite the students to draw a line and mark against it the key events in their lives, as in the example below. The lifelines can be drawn and illustrated to go on the classroom notice board. The notes can be used for an exchange of information in class or as the starting point for a short written autobiography which could be complete for homework .

'51	born
'56	started primary school
'60	secondary school-hated every minute
'65	first kiss-on holiday in Spain
'73	first teaching job
'78	first book published
'81	Brazil
'84	father died
'85	job in Spain
'91	a new flat in London
'96	married Kelevan

In a familiar way, family trees can be drawn and can be used as a starting point for asking and talking about relationships. Gaps can also be left in the family trees. The learners then, exchange family trees with their neighbors, and they question each other to fill in the missing information.

### 7.7 Intrapersonal Intelligence

Intrapersonal intelligence indicates the ability to look within for causes and to find solutions to problems. Among the activities which cover this intelligence we suggest:

#### Creative writing

Creative writing, especially poetry, involves within and appeals to the interpersonal type. A haiku is a Japanese poem that consists of three lines –with five syllables and seven syllables. When you have a class of students who are interested in poetry, you might invite them to produce "haiku" on a particular topic with one line containing zero article, one line with the indefinite article and one line with the definite article. Three examples are presented below:

True love is a myth

For it has no existence

Except in the mind

---

Friendship is precious

Like raindrops caught in the hand

Of a dying man

---

Writing poetry can be done individually or collectively. After writing the following Adrian Henry poem to the class, you can invite everyone to write one line expressing their own interpretation of what love is. The title "Love Is...." Could be changed to "Happiness Is ...." or anything else that suits your purpose.

Love Is... ([http://www.andyrobertsmusic.com/adrian\\_poetry.html](http://www.andyrobertsmusic.com/adrian_poetry.html))

Love is.....

Love is feeling cold in the back of vans

Love is a fan club with only two fans

Love is walking holding paintstained hands

Love is.....

Love is fish and chips on winter nights

Love is blankets full of strange delights

Love is when you don't put out the light

Love is.....

Love is the presents in Christmas shops

Love is when you're feeling Top of the Pops

Love is what happens when the music stops

Love is.....

Love is white panties lying all forlorn

Love is pink nightdresses still slightly warm

Love is when you have to leave at dawn

Love is.....

Love is you and love is me

Love is prison and love is free

Love's what's there when you are away from me

Love is.....

## 7.8 Naturalist Intelligence

Naturalist intelligence can be catered for in the ELT classroom by noticing relationships, categorizing or classifying. Two topic categorizing activities are presented below to practise the use of tenses, dealing with how couples first met each other. The first contrasts the use of the Past Simple with the Past Continuous and the second includes a whole range of tenses.

### A- How We Met

1- Separate the sentences into two stories. There are seven parts in one and eight in the other. Label each part "a" or "b" as in the examples:

a-We were both students at University College London.

b-We first met each other at a party-in the bathroom to be exact.

A-He was a second year geology student and I'd just come back from a year in France to start my final year in the French department.

-Our memories of our first meeting differ. He thinks he first saw me sitting at an Open Window Smoking Gauloises.

-It was really embarrassing because he'd forgotten to lock the door and I walked in to find him doing up his trousers.

-In fact, we'd met a few days earlier. I noticed him one morning when I was jogging through Hyde Park.



- It was a fancy dress party and I was dressed as a belly dancer.
- Anyway, after I'd apologized he introduced himself and we started chatting to each other.
- Our first date was in October, on the night the clocks went back.
- then we heard someone banging on the door.
- "Who's there? It's been occupied for ages!"
- We made the most of the extra hour by going to a late night film.
- Too embarrassed, to walk out together, we decided to climb out of the window and re-entered through the front door where nobody was looking.
- I think it was "The Titanic".
- Also we've had our ups and downs since the party, surprisingly we are still together.

### B-How We Met

Separate the sentences into two stories. There are seven parts in one and eight in the other. Label each part "a" or "b" as in the examples:

a-My sister had just found a room to rent in a house with three other people.

b-I met my girlfriend when I was working as a teacher.

B-She came to the school to improve her English.

-when I returned home late from a week end in Manchester, she put me up for the night.

-she's a bilingual secretary and she comes from Brazil.

-The house is in the suburbs of London where she's is a medical student.

-At first she didn't seem to be very interested in me.

-After she'd been in the school for a couple of weeks, I finally plucked up enough courage to invite her to a party.

- I was so uncomfortable sleeping on the floor that as soon as my sister got up to work, I immediately jumped into her bed and went back to sleep.
- Suddenly there was a knock on the door and one of her flatmates walked in.
- We soon discovered we had a lot in common and we've been going out together ever since.
- He'd woken me up so I agreed to have a coffee with him downstairs.
- We ended up spending the whole year together.
- At the moment she's studying for the Cambridge first Certificate Exam.
- Although we've been happily married for some time now, I am the one who always makes the coffee.
- Fortunately she isn't in my class and we've managed to avoid any embarrassment.
- My husband's been a GP since he left medical college but he's studying to become.
- Now look at the following account of how two people met and change the verbs into the correct tenses:

A couple of years ago I (go) to Switzerland on holiday. It (be) the first time I (ever go) skiing and I (look) forward to it .However, the first day on the skiing slope I (break) my leg and (end up) in hospital. As you can imagine, I (feel) really depressed until I (meet) the nurse who (be) later to become my wife! The moment she (enter) the hospital ward it (be) love at first sight. at the moment we (live) with my parents but we both (work) hard to save up enough money to buy a home of our own. We (be) married for just over a year and for our first wedding anniversary my wife (buy) me a pair of skis!

- Write a short account, true or imaginary, of how you and partner first met. Use as many different tenses as you can.

## Activity 2

## Word Groups

Make five groups of five words and give each group a name. Example:

SCHOOL	-a lesson
	-a students
	-homework
	-a teacher
	-a classroom

Leg	a student	daughter	a tree	green
A lesson	blue	homework	foot	elbow
Uncle	parents	grandfather	a classroom	a park
A garden	arm	shoulder	white	cousin
Red	a teacher	yellow	a flower	grass

Answers:

-Schools

-Colors

-Relations

-Parts of the body

-Plants

In his book "MI strategies in the classroom (2005:01) Weber Ellen insisted that we should "build unique environments so that secondary or college students want to be there and will learn and prosper". She designed a brain-friendly tactics (adapted) which cover Gardner's intelligences:

Bodily- Kinesthetic Domain

Key questions for this group might include:

1. Who are three well known dancers in Algeria who would appeal to your friends?
2. For what are these three known in addition to dance?
3. Learn and dance one or more of their dances.
4. How does Algerian dance (Kabyle, Chaoui ,Wahrani, K'santini ,Staifi ...) compare to other dances you know about ?
5. What are the famous carnivals in Algeria? What challenges people to support them?
6. Reproduce a dance carnival that might be performed in Algeria.
7. What are two well known athletes in Algeria?
8. Can you represent their sports using several Gardner's eight ways of knowing?
9. Why has football become famous in Algeria? Describe the game as they play it.
10. Can you describe the art of horse racing in Algeria as it is done for fun and competition?
11. Describe or represent the sport you most enjoy as it would be played in Algeria.

### Mathematical-Logical Domain

Key questions for this group might include:

1. What are the most popular math-related careers in Algeria? What training do they require?
2. For what purposes are computers used in your area? Who owns them?
3. In what ways, if any, do Algerian schools use computers?
4. What is the average salary of secondary school teachers in Algeria? Graph some comparative wages.
5. Using graphs or posters, indicate the industries that have helped Algeria most?

6. Using recent statistics, show where Algerian wealth is concentrated and why.
7. Where are the greatest concentrations of people in Algeria?
8. How has the demography influenced prosperity and poverty in Algerian communities?
9. Represent some of the most innovative scientific Algerian inventions.
10. Who created these inventions? How?
11. Using only numbers, create a poster showing how you would describe Algeria.

### Verbal-Linguistic Domain

Key questions for this group might include:

1. In five hundred (500) or fewer words relate the history of Algeria.
2. In what ways have events in Algerian history influenced other parts of the world?
3. Describe any progress in education and literacy over the past ten years.
4. Represent a day in the Algerian Secondary-School through role play, poetry or debate.
5. In what ways has Algerian education influenced other parts of the world?
6. What types of people receive education in Algeria? Write a one-act play about the most educated people.
7. What people tend to be illiterate in Algeria? Stage a mock interview to show why this is so. Report your results and suggest solutions to the literacy problem.
8. Describe the news media in Algeria. What TV, radio, magazines and films are popular?
9. Create a newspaper that illustrates one day in the life of an Algerian.
10. Using photography or photographs from magazines create a scrapbook; add one or more stories for each illustration.
11. Interview a Secondary-School Algerian teacher. Ask him or her to describe Algerian educational concerns and highlights. Include the interview in a report.

12. Discuss the community's involvement in education and compare or contrast parental involvement in your own community.

### Musical-Rhythmic Domain

Key questions for this group might include:

1. Write a song in the style of the most popular music teens enjoy in Algeria.
2. What Algerian classical musicians are well known?
3. What Algerian folk musicians are well known?
4. How is music taught in Algerian secondary schools?
5. Identify Algerian music in a film and show its influence on the story.
6. What would a typical middle-class family in Algeria eat in one day?
7. Create music to describe a menu for a typical poor family in Algeria.
8. Where are Algerian oranges grown, and to what countries are they exported? Describe the process through music.
9. Write a song that describes a typical day in Algeria for a secondary school student.
10. Use music to describe an important aspect of Algerian life, from your perspective.

### Visual-Spatial Domain

Key questions for this group might include:

1. What are Algeria's best known artists, from your perspective?
2. How has Algerian art influenced art in other parts of the world?
3. What Algerian events honor artists and celebrate art?
4. Where are Algeria's art institutions? What do they offer artists?
5. Describe two well known architects in Algeria.
6. In what ways do the works of these two architects differ? How are they similar?

7. Represent some of the architectural designs popular in Algeria.
8. Design three typical Algerian homes- one for the poor, one for the middle-class, and one for the wealthy.
9. Using any art form, describe one day in the life of an Algerian teen from a wealthy family.

### Interpersonal Domain

Key questions for this group might include:

1. Using Gardner's eight ways of knowing, represent an Algerian family and describe its class privileges and disadvantages.
2. Role-play several key Algerian historical people, put on (as if) on a radio talk show and discuss how family life relates to politics.
3. Describe Algeria's story through the lives of each member of one imaginary Algerian family.
4. What are the major religions in Algeria? Who leads them and why?
5. How have Algerians influenced and be influenced by other parts of the world?
6. What do Algerians wear? What do they care about? What do they want for their future?
7. How do Algerians relate to teenagers?
8. How do Algerians relate to women? How do Algerian women relate to men?
9. To what countries do Algerian exports go? Who exports to Algeria?
10. In what ways have Algerian people changed over the past ten years?

### Interpersonal Domain

Key questions for this group might include:

1. Write your personal reflections on one Algerian leader.
2. What would you experience if you were to spend two weeks in a foreign country?
3. What would you eat if you lived in a foreign country?
4. What would you like to say to Algeria's current leaders?
5. Pretend you are a well known Algerian philosopher being interviewed on TV.  
Write out the interview using the word processor.
6. What would you like to say to Algerian teens about life, education, values, art, and music?
7. Create a diary that illustrates one week in an Algerian secondary school
8. If you could help one very poor Algerian community by improving lifestyles in a realistic, what would you do?

### Naturalistic Domain

Key questions for this group might include:

1. From the perspective of a camel, tell why Algerian people would benefit from your position as a symbol that represents strength, success and patience.
2. Describe a day in the life of an Algerian camel.
3. Illustrate the problems in Algeria that threaten the camel's existence.
4. How would the camel improve the Algerian lifestyles so that humans and nature could both benefit and prosper?
5. How is the camel a symbol of patience?
6. Relate a myth, a story or a play in which the camel plays a central role.



7. In your opinion why is the camel considered by many to be a sacred animal?
8. Illustrate the camel as a sign or symbol of native right.

To be valid, efficient and reliable, Ellen Weber (2005:.43) insisted that the above domains should meet the following criteria:

- Provide rich contexts as backgrounds to the study.
- Relate to real-life situations in Algeria.
- Display knowledge, skill and understanding about the topic.
- Exhibit the strengths of each participant's abilities.
- Encourage community building among students, teachers, and parents.
- Encourage reflection about controversial issues.
- Culminate in a meaningful domain to explore complex questions.
- Demonstrate an integration of ideas and skills.
- Demonstrate creative and original work.
- Lead to further interaction among students, teachers, and community members.

If students or teachers decide to incorporate more than one country in each domain, the questions should differ from the one asked about Algeria. Questions might include the following:

1. How does each of these countries contribute to other parts of the world?
1. Describe and compare a musical event in each country.
2. In which country would you prefer to live as a teen? Why?
3. How could you represent these countries using any art form?
4. List the similarities among these countries.

5. How does family life differ among these cultures?
6. How would people from each country enjoy life in the other countries?
7. How would a typical menu in one country differ from menus in the other countries?

Under the subtitle "Applying the Multiple Intelligences Approach", Ellen Weber (2005:84) suggested that the teacher and the students can consider possible group or individual expressions that accord with the multiple approach. This strategy should occur through a brainstorming session. The output should be something like:

### 1-Verbal Linguistics

- Write a letter to your newspaper editor suggesting a solution to one current natural resources management problem in your community.
  - Interview a well known conservation expert on a mock radio program.
  - Write a poem, play or essay or produce a brochure to show some aspects of resource management.

### 2 Mathematical –Logical

- Report statistics on the resource management programs in your community; show how the statistics can be interpreted.
  - Prepare a cost analysis statement of a good resource management educational program for the public.
  - Present a statistical report that would encourage more interest in conservation.
- How can big business help?

### 3 Musical-Rhythmic

- Prepare a musical play for the class involving some aspects of resource management. Express your story, mood and setting through carefully selected or created music.
- Use humor, tragedy history, or biographical material put to music in order to tell your story.
- Write a song that expresses your ideas about the problems and solutions.
- Choose background music that reflects the problem; then present music that reflects an ideal solution.

### 4 Visual-Spatial

- Draw a blue print for a center to educate the public on source management.
- Create posters for teaching and expressing key issues.
- Create a school newspaper, with cartoons and diagrams, to increase awareness among young peers about one major controversy. Use art or graphs to show various perspectives of the issue.
- Preset a slide show or create a photo album to show problems and solutions.

### 5 Bodily-Kinesthetic

- Videotape the neighborhood resources and use your tape to create a classroom discussion. You might include scenes from family activities or from created role-plays.
- Organize a dance to express your ideas about natural resources and their future management in your community.

## 6 Interpersonal

- As a radio talk show host, interview four experts on resource management and get their opinion of best solutions.
- Interview members of your class for their ideas about the problems and the solutions.
- Prepare a debate with others in your group and present this debate to the class.

## 7 Intrapersonal

- Write an essay for a local magazine about who owns the problems and what should be done to manage the resources.
- Pretend you are a logger, an antilogger, a green peace leader, and a fisher. Keep a diary as each person for one week.
- Observe your school resource management and chart your observations. What is your opinion of the school management? What improvement do you suggest?

## 8 Naturalistic

- Write about problems and possibilities to avoid them in a natural disaster.
- Interview a naturalist about the problems and solutions.
- Create a natural museum or display to organize and exhibit your findings.

The purpose of this unit, according to Ellen Weber (2005:85), in addition to learning new material, is to set the students to reflect on impressions, create new understanding, and be aware of the ideas of others. New ideas will emerge from their outputs. The idea of this file is "to consider more than one perspective of all key issues and to apply knowledge to new situations and challenges in the community". Learning significant facts about any resource problem is important unless we apply these facts to our real-life situations.

## 7.9 Proposed Foreign-Language Lessons

As a follow up to all the typology of activities we have presented so far, we have judged it very beneficial to include two coherent MI based lesson plans to give the reader a clearer idea about the topic

### LESSON ONE                      OUR HOUSE    (Tefl.net/teacher-training/)

Phase 1: Share the goals of the lesson with the learners. Tell them that after the lesson, they will be able to recognize the names of common rooms and other words related to houses. Furthermore, they will be able to use most of the vocabulary items productively or, more precisely, to be able to describe houses and name the various rooms that houses may hold, to ask questions about houses, and to argue in favour of their own as well as against other people's opinions.

Next, invite them to suggest real-life situations in which they may have to discuss or describe houses in a foreign language.

Phase 2: Read out the text entitled "Our House" to the learners. Ask them to listen carefully and to pay special attention to the various types of rooms mentioned in the text. You could also invite one of the learners to do the reading.

Our House

I live in a big yellow house near the main road. Our house has eight windows and two balconies that overlook a big garden. On the ground floor there are a kitchen, a hall, a living-room with many paintings on the walls, a dining-room where we have all our meals, a bathroom, a toilet, a computer room with lots of books in a giant bookcase that fills the whole wall, and a garage. In front of the house there are a garden, a swimming-pool, and a large, green fountain with fish.

On the first floor there are three bedrooms, a bathroom, and a small toilet. On the second floor there is an attic which has all kinds of old furniture. Behind the house there is a vegetable garden. We have a large basement too, with a cosy sitting-room and an open fireplace.

Phase 3: Divide the learners into pairs and ask them to list the different rooms mentioned in the text and to provide answers to the following questions:

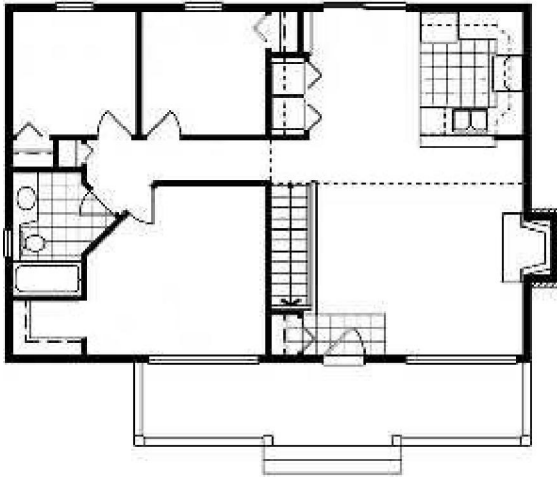
- How many floors were mentioned in the text?
- Which rooms were on which floors?
- Was there something in the house or the garden that you do not normally find in an ordinary house or its garden?

Phase 4: Ask the learners to make individual lists of all the rooms they wish they had in their dream house. Also, ask them to specify whether their dream house is new or old, a single-family house or in a block of flats, located in a city or in the countryside, etc.

Play the song "Our House" (performed by Crosby, Stills and Nash) at a low volume in the background while the learners are working.

Phase 5: Divide the learners into groups of three and give each group a copy of the house plan shown below. Ask each group to agree among themselves as to which rooms there are in the

house plan, and at the same time try to include as many elements as possible from every group member's individual dream house.



Phase 6: When the learners are finished, invite them to walk around in the classroom, discussing and comparing house plans. Ask them to make notes of the types of houses included in everybody else's individual house plans while walking around, and also of the rooms found in the house plans agreed upon within the groups.

Phase 7: Divide the learners into new groups of three and ask each group:

- a. to decide among themselves which rooms were the most popular ones, and
- b. to categorize the existing house types into whatever number and kind of categories that they find appropriate

Phase 8: Play the background song "Our House" one more time (at a higher volume) and ask the learners to concentrate specifically on the lyrics ([www.niehs.nih.gov/kids/lyrics/ourhouse.htm](http://www.niehs.nih.gov/kids/lyrics/ourhouse.htm)). Next, ask them to decide what the text is all about and then share their thoughts with the learners sitting next to them.

Phase 9: As the final phase of the lesson, ask your learners to work with a computer program entitled "Our House". (You'll find an alternative lesson plan involving this program ([www.tefl.net/esi-articles/call-lesson.htm](http://www.tefl.net/esi-articles/call-lesson.htm)). The program can be downloaded free of charge from the author's site ([www.vasa.abo.fi/users/rpalmber](http://www.vasa.abo.fi/users/rpalmber)). The program opens with a blank screen and the learners' task is to complete the program text by suggesting words to it. Each accepted word will appear on its correct line(s) and in its correct place(s) in relation to all visible words, but without any indication as to the number or place(s) of the missing words. Invite the learners to help one another but challenge them to complete the program text (which is in fact identical with the original text) without using the "Help" function of the program. Since the purpose of this phase is repetition, it could be a good idea to postpone this phase until the following English lesson.

#### Catering for the various intelligence types

The various intelligence types are catered for in particularly during the following phases of the proposed foreign-language lesson:

- verbal-linguistic learners: all phases
- mathematical-logical learners: phases 3, 5, 7 & 9
- visual-spatial learners: phases 5, 6 & 9
- bodily-kinaesthetic learners: phase 6
- musical-rhythmic learners: phases 4 & 8
- interpersonal learners: phases 5, 6, 7, 8 & 9
- intrapersonal learners: phases 4, 8 & 9
- naturalist learners: phase 7
- existentialist learners: phases 1 & 8



## LESSON TWO Egypt Vs Algeria: A football Crisis?

Time : 90 minutes

Materials : VCR, posters, pictures

Skills: Integration of the four skills

Objectives: Learners will

1-Identify and evaluate information presented in the text that argues for the causes of hatred between Algeria and Egypt.

2-Express opinions in writing about violence and misunderstanding between peoples

1- Students will summarize the government's reasons for sending Algerian fans to support the Algerian football team in Sudan.

2- The students will evaluate the pros and cons of these reasons.

3- Identify new words in the text and guess their meaning from context

Seating arrangement: horseshoe: T's role: coordinator/collaborator.

Setting the stage: Visual /Spatial

Show pictures showing Algerian football team attacked by Egyptian fans in Cairo.

Discuss: Background /history of football unusual events between Algeria and Egypt from

Reading (Text and Newspapers) Verbal/Linguistic /intrapersonal /spiritual

Construct: Time line of the crisis events Logical/mathematical- Visual /Spatial

Groups: Posit legitimate reasons for the Algerian government to send a huge number of football fans to Sudan. Refer to what you have read or heard. Interpersonal/Intrapersonal/linguistic

Show: Anti-Algeria and Anti-Egypt newsclips. Musical / visual /spatial

Journal: What role did emotions play in this crisis? Defend or critique the reasons for triggering this crisis. Verbal/linguistic - intrapersonal

Assessment opportunities--what the teacher can do to see if the lesson was taught effectively: watching students work, assigning application activities, getting feedback, etc. (Can include both formal and informal assessment and both formative and summative evaluations)



## A long history of hatred

Why the hatred? Algerians and Egyptians have never warmed to each other, and they seem to like expressing their feelings through football. Egyptians are seen as snooty and aloof, and there was bad blood between the two countries in the late 1950s, when so many African countries – but not Egypt – were fighting for independence. In an excellent new book on African football, Ian Hawkey tells the remarkable story of the FLN footballers, a team of top-division professionals who ditched their clubs in France and raised awareness of Algeria's claims for independence through football matches in North Africa, Asia and Eastern Europe. Egypt would not play them.

There was more trouble in the 1970s, when Algerian police waded into Egyptian players and fans during a troublesome All Africa Games match between Libya and Egypt in Algeria. In the 1980s an Olympic qualifier between Algeria and Egypt was repeatedly held up by brawls. And even last season there was trouble at a club game, when Hossam Hassan, scorer of that goal in 1989, and his brother Ibrahim were both banned indefinitely by FIFA for their behaviour after the club they coached, Masri, lost in Algeria. Among other misdemeanours, Ibrahim Hassan assaulted the fourth official.

"When I hit the fourth official, I was trying to defend myself because he held my finger firmly and was about to break it!" said Ibrahim Hassan. "I will not apologize. I do not regret my reactions."

With the countries due to meet in Algeria in June this year (a 3-1 home win), it was time for diplomacy. Algeria's foreign minister started negotiations, the respective Olympic Committee presidents came to an agreement, and persuaded the suitably compensated Egyptian team doctor to drop his case against Belloumi.

Both sides will hope for a more peaceful game in the next installment, and with the stadium now modernized only 74,000 will be there. Algeria have played well and will fancy their chances, but if they come away with the result they need it could be yet more bad news for the Premier league's bottom club, Portsmouth. Nadir Belhadj and, for the first time, Hassan Yebda are in the Algeria team. If they make it to the World Cup finals this week they will be happy to get home safe and sound.

This article was published on [guardian.co.uk](http://guardian.co.uk) at 18.43 on Saturday 10 October 2009. It was last modified at 11.12 on Monday 12 October 2009.

Follow up activity

Read what this newspaper's readers said and

1-Correct spelling and grammar mistakes the readers made.

2- Write two comments to enrich the list.

3- Reply to one of these comments.

Note: The teacher is to select the comments which fit his pupils' level. The use of a bilingual dictionary is recommended.

- [LinkGrantona](#)

10 Oct 2009, 7:28PM

Let's hope people are talking about the football after the game.

What do people think of Egypt's chances? They've got some really talented players (Mido, Zaki, Aboutrika, Zidane). I'd like to see them in South Africa next summer.

- [skikda67](#)

10 Oct 2009, 7:30PM

the egypt algeria game is not this wednesday but next month instead i hope things have moved on and both Egyptians and Algerians now realise that is only a football game i dont think the two nations hate each other as there is lots of algerians living in egypt and vice versa i certainly have no problems with egyptians. i will be supporting Algeria but if Egypt qualify to the world cup i ll be supporting them.

- [yacine](#)

10 Oct 2009, 10:34PM

the hostilities have nothing to do with 1950s african history, but to do with a previous match between the two teams, where the algerian team was battered watched on live television until the transmission stopped; but before that millions of algerians watched a 60 or 70 year old algerian physio being clobbered repeatedly on the head by an egyptian policeman; other colleagues of him were doing the same thing to players and other members of the algerian bench. having said that, i don't think there's any animosity between the two countries outside the matches.

- [KGTG](#)

10 Oct 2009, 10:58PM

"Egyptians are seen as snooty and aloof, and there was bad blood between the two countries in the late 1950s, when so many African countries – but not Egypt – were fighting for independence". Egypt not fighting for independence in the 1950's! What was Suez in 1956? Why was President Nasser the scourge of the West? Why did the French invade Egypt with the British at Suez? Precisely because Egypt was HELPING the Algerians to gain independence. Egypt and Algeria were very close... Egypt was also the heart of the independence movement in Africa and the Third world. Egypt IS the largest Arab country in population, its media very influential and it resonates across the region. Whether that's "snooty", people can argue, "aloof", I don't think so. The fact remains that Egyptians see themselves (through weight of numbers, strategic regional influence, historical achievements on and off the pitch) as a centre of gravity, and beating Egypt is a goal in itself. In a 2002 WC qualifier in Algeria, Egypt needed to win, Algeria were already out. When Egypt scored from a penalty, the crowds became so angry, the match was stopped for 18 minutes, and then resumed. When Algeria scored (it ended 1-1), its

like Algeria had got to the World Cup. And that wasn't the first time. And Egyptians are snooty?!!

- [KGTG](#)

10 Oct 2009, 11:06PM

Mind you, I think Algeria have played an excellent qualifying tournament this time.

Whoever wins or qualifies will deserve to be there. I think that will be the beauty of this coming match, as both sides have their own fortunes in their own hands. I really do hope that previous unpleasantness is all in the past.

- [DurhamGoat](#)

10 Oct 2009, 11:32PM

Algeria is a much better team than they get credit for. In this qualifying round their midfield and defence has been much better than Egypt's. They tore Egypt apart in June and could have easily won 3-0 if they hadn't fallen asleep at the back near the end of the match. The world cup will not lose anything in quality if Algeria qualify over Egypt.



- [prankmonkey](#)

10 Oct 2009, 11:33PM

The build-up to the match was hostile, as the two countries already had a healthy dislike of each other.

True, for a given value of true. A bit like saying that there's been a little bit of tension in Ireland depending on religion for the past couple of years.

Good to see a blog on areas of football outside the norm though, kudos Mr Oliver.

- [Dublin64](#)

10 Oct 2009, 11:55PM

If Algeria beat Rwanda tomorrow evening they will be three points clear of Egypt with a superior goal difference (I think +4) meaning they will go to Cairo with a three point advantage so should be favorites to qualify for South Africa. Not so sure about Algerian and Egyptian hating each other I was at the International airport in Algiers when the Egyptian team arrived and the whole place applauded them? Go Algeria all the way to SA

- [GUnit](#)

11 Oct 2009, 12:00AM

I want an Egypt win, but, as far as football is concerned, I hope it's a good one, without any violence. A very nice article. Keep it up Brian.

- [nyporteno](#)

11 Oct 2009, 6:54AM

I went to Egypt back in 1995, lovely people the Egyptians.

Speaking of North African football, what's happened to Morocco?

- [jkhd](#)

11 Oct 2009, 12:54PM

Shouldn't Africa have more qualifying spots .They certainly should: 5 qualifying spots from 50 odd countries, while Europe gets 13 from 50 odd countries, and South America gets 4/5 from 10. you could take one away from South America (or North America, I don't think anyone will really care), and give it to Africa.

- [wisdomofsalomonkalou](#)

11 Oct 2009, 3:22PM

If Algeria win today by one or two, Egypt must win by two goals in November. If Algeria beat Rwanda by three or four, Egypt must win by three in November and so on. Bit like Liverpool v Arsenal in 1989.

- [aanda](#)

11 Oct 2009, 5:47PM

Geesh gievn all that it's a dam good thing the media aren't fuelling the fire.....makes a change

- [buckgoons](#)

12 Oct 2009, 12:09AM

Game of the next round....Egypt needs to beat Algeria by 2-0 to qualify. A 3-1 win for Egypt means both teams are tie in all stats meaning a coin toss. A coin toss to determine a WC place? What if Algeria wins the toss in Cairo...Grab your pop corn!

- [InvisibleParis](#)

12 Oct 2009, 1:09PM



All I know is that the Algerians in Paris were going absolutely crazy last night - they obviously think that they have already qualified. If Egypt knock them out now there's going to be quite some comedown.



- [goonersunite](#)

12 Oct 2009, 3:17PM

Good luck to both countries, but im rooting for the Algerians, love the country,

- [elpop](#)

12 Oct 2009, 10:10PM

egypt in worled cup south africa 2010

its our faight

[hatembomb](#)

13 Oct 2009, 10:27AM

I hope we destroy Algeria

[Masri horr](#)

14 Oct 2009, 11:27AM

We are the first,the best and the champions!!!!!!

You are the last,the worst and the losers !!!

[Djazairi 100 per 100](#)

May Allah show you the straight path. We are all muslims and football must not be our main concern. Open your eyes!!! Shitan is behind you!!!

In an article entitled "Multiple Intelligences Implications", Multiple Intelligences Primer (<http://www.personal.psu.edu/bxb11/MI/index.htm>) suggested some "fit-all" pedagogical implications which can be very helpful for the EFL teacher. Such Implications might be summarized as follows:

### 1. Designing Instruction around Multiple Intelligence Theory

Teachers are strongly advised to analyze their lesson plans to ascertain which intelligences are being utilized with each activity. They should remember that all the nine intelligences are to be incorporated in the lesson plan and that no one intelligence is over emphasized. They should also bear in mind that interpersonal tasks do draw upon cooperative learning techniques and the intrapersonal activities are supposed to be self-paced, allowing for more self reflection. Whenever dealing with remedial work, all the intelligences are to be used in order to enable the learner to have a new way of looking at the material.

### 2. Developing Verbal-Linguistic Intelligence

This intelligence is generally activated by the verbal word, by "reading and by writing one's own thoughts and ideas". To activate this intelligence, teachers should

- Set the pupils to write a sequel to a story, be it imaginary or true.
- Make wise use of cooperative learning techniques and involve the pupils in pair work or group activities.

- Set pupils to prepare and make a speech on a relevant topic.
- Set pupils to keep a log or journal about their daily experiences.
- Foster pupils to read and write stories and poetry.

### 3. Developing Logical-Mathematical Intelligence

We can activate this intelligence whenever we involve pupils in problem-solving activities and challenging situations. To enhance this intelligence EFL teachers have to

- Set the pupils to create a detailed outline on any subject they are studying.
- Set them to compare and contrast objects and concepts.
- Encourage them to construct logical arguments for their ideas.
- Involve them in an empirical study based on the scientific method.

### 3. Developing Visual-Spatial Intelligence

Teachers can develop this intelligence when they involve their pupils in mental imagery operations to accomplish something or do an activity. Among the ideas we can use to activate this intelligence:

- Set the pupils to design a plan of a building.
- Set the pupils to study a picture, then have them list the object in the picture without looking at it..
- Foster pupils to develop a mind-map for a given area of study.
- Help the pupils to develop a highly visual presentation for a given area of study.

#### 4. Developing Musical-Rhythmic Intelligence

This intelligence is activated when pupils make use of music and rhythm to learn something. When adequately used, it becomes the most mood-altering form of intelligence.

Here are some ideas for enhancing this intelligence:

- Have the person listen to different types of music to prepare for an activity. For example, have the person listen to relaxing music prior to taking a test.
- Have the person create a tune about a given area of study.
- Have the person analyze how different people speak - what inflections they use, how they vary the pitch of their voice, etc.
- Have the person listen to various sound from nature in an attempt to discern patterns and rhythms. Bird songs are excellent for this.
- Have the person listen to a famous piece of music, then have him/her describe it's "mood." If available, compare/contrast this to "official" reviews of the piece.

#### Fostering Bodily-Kinesthetic Intelligence

This intelligence is activated when a person uses their own body/physical action to accomplish something.

Here are some ideas for activating this intelligence:

- Have the person physically build something.
- Involve the person in a sport that teaches, such as Karate.
- Have the person act out scientific processes, such as planetary rotation.
- Have the person learn to play physical games that are popular in other cultures.
- Have the person teach someone how to use a physical device.

Here are some key terms that are related to bodily-kinesthetic intelligence:

dance	role play	gestures	drama	martial arts
body language	exercise	mime	inventing	sports games

#### Fostering Interpersonal Intelligence

This intelligence is activated when a person interacts with others to accomplish something.

Here are some ideas for activating this intelligence:

- Utilize cooperative learning techniques for covering subject matter.
- Have the person conduct interviews to gather information on a given area of study.
- Have the person teach someone how to do/understand something in a given area of study.
- Have the person role-play a famous character to gain understanding about the character.
- Have the person work on an issue important to the community.

Here are some key terms that are related to interpersonal intelligence:

giving feedback	intuition	cooperative learning	person-to-person	empathy
division of labor	collaborative skills	receiving feedback	sensing motives	group projects

## Fostering Intrapersonal Intelligence

This intelligence is activated when a person utilizes self-reflection and thinking to accomplish something.

Here are some ideas for activating this intelligence:

- Have the person imagine having a dialog with a famous figure, historical or otherwise.
- Have the person keep a diary/journal about what they learn each day, and what it means to them.
- Have the person keep track of his/her moods and feelings when working in a given area of study.
- Have the person build a mind map of a given area of study.
- Have the person brainstorm on how his/her culture influences his/her thinking in a given area of study.

Here are some key terms that are related to intrapersonal intelligence:

silent reflection	metacognition	thinking strategies	emotional processing	self knowledge
mindfulness	focus & concentration skills	higher-order reasoning	complex guided imagery	centering

## Fostering Naturalistic Intelligence

This intelligence is activated when a person utilizes some aspect of nature to accomplish something.

Here are some ideas for activating this intelligence:

- Field trips.
- Categorizing/interacting with something natural - bugs, rock types, weather patterns, etc.
- Observation of animal behavior.
- Manipulating outdoor equipment
- Designing experiments.

Here are some key terms that are related to naturalistic intelligence:

## Conclusion

Providing teachers with ready made MI materials is never meant to be the solution to better school achievement. Worse, the situation will aggravate when teachers follow blindly these materials. From a teaching point of view, the important thing is not whether teachers elect to base their teaching on specific course books or whether they reserve the right to interpret, select and use the types of classroom activities that can cater for (or be designed to cater for) the intelligence profiles of their particular learner group. It is far more important for teachers to recognize the fact that learners are in fact different and therefore may need different types of classroom activities and techniques in order to learn. Only in doing so can teachers fully encourage their learners to try harder and at the same time make the learning environment as meaningful and enjoyable as possible for all parties involved.

## General Conclusion

In light of brain-based studies, current theories and practices of instructional design need to be reexamined for their compatibility with how the brain best learns. New research validates that learning is individually specific. This implies that standardized materials and instructions, the case of Algerian schools, may actually diminish or inhibit learning. To be fair, we must not deny the efforts being furnished by some Algerian textbook writers to reach a larger variety of students. Learning is best achieved when multiple domains of instruction are simultaneously introduced. Multiple intelligences theory is part of this challenge. It should be included in the Algerian educational system to fill in the gap left by the competency based approach which is omnipresent in our schools nowadays. New learning must be relevant to the learner and multiple intelligences can do the job. We should bear in mind that if one's brain, consciously or unconsciously perceives instruction as irrelevant, it turns irrelevant. When irrelevant, learning is diminished.

The theory of multiple intelligences is being seized by so many educators in developed countries because of its powerful lures- a lot of educators adhering to this theory are claiming its efficiency in the teaching operation. Put another way, when curricula and instructions are MI

based, different pathways become available for students to assimilate, learn and succeed. MI is not a "higgledy piggledy" or a panacea prepared to suit the tastes of a variety of students; a kind of eclecticism to hide the weaknesses of any educational system. That said, the MI theory supports whatever approach fosters learner centered education. MI urges educators to observe how the student learns, gather relevant information and develop syllabus, instruction, and assessment based on this information. MI urges the educators not to bend the learner to fit the curriculum; the curriculum itself is to bend so that it accommodates all the students' needs and styles. We must remember that students learn in different ways. MI is the appropriate tool since it helps the teacher reach more students, and enhances his strategies to become a better educator.

Another important feature of Gardner's theory is that using MI transforms the role of the teacher. In traditional schools, the case of Algeria and most developing countries, teachers typically are tied to text books and other mandated syllabus materials. In this situation, what matters most for students is scoring well on standardized tests such as "BAC" and "BEM". Naturally, then, teachers are oriented towards spoonfeeding the students with end-products which prepare students for these examinations; the closer the match between the official syllabus and what is tested, the "better" the teaching. Teachers, parents, students and even administrators, have one clear objective: success on standardized tests. While we find it easy to criticize this parochial goal, the reality is that education in most countries has become politicized. This very population would acknowledge that they are conscious about how limited and limiting their focus is, but they know they have no choice. The losses to students, because of this approach, do also cause a heavy toll to teachers. What is the message to our students and the teachers alike about their competencies when everything is set out and predetermined by a faraway decision maker? What would learning be when 'the name of the game' becomes scoring well on exams whatever the means?



We must say it aloud: most Algerian teachers go into teaching because they do not find a substitute. But when confronted with students they turn very willing to work hard. I discovered this while inspector of English (1991-2006). The young teachers enjoy being "on stage," furnishing great efforts to satisfy their students' needs. Unfortunately, because of lack of adequate training, and overcrowded classes, they often fail to relish the doctrine of figuring out how to reach all the students and turn them excited about learning. At the end of a day, it is obvious, these teachers return home physically exhausted and emotionally drained. Satisfaction, we repeat again, comes from knowing how to observe students learning, avoiding the "one-size-fits all" philosophy and catering for the students' multiple intelligences. It is only then that teachers can feel they have made a difference in a student's life. The MI perspective offers the teacher and the student a myriad of ways to teach, assess and learn. Anecdotally, we can extol, without hesitation, the virtues of Multiple Intelligences theory. When the teacher's MI focus is genuine, our students will find learning interesting, fun and fruitful. The school ends to be a boring place to go to. Furthermore, when students are excited about learning and finding success, discipline problems will disappear.

The vision that we have described in this paper is bound to mushroom because of the new findings in psychology, education, neurology and so forth. Walking into the building: primary school, middle school, secondary school or university, will not become a reminder of one's personal frustration and failure. It will turn a reminder of success. That day (this, for some countries) we can chip away at some of the fear or cynicism that we, teachers and students, bring to school.

We have learned that developing an MI strategy takes much time; yes, it is very effective and so fruitful, but it must take much more time. We are condemned to continue to work, as individuals and as a group, in finding ways to use MI theory, to help our students, ourselves and

our schools, grow. It is going to be a hard journey but its end-destination will be rewarding.

"Verily, after hardship there is relief".

## Implications for Teaching

Nowadays, literature is very rich with the implications for teaching using brain research.

We have selected the following table written by Caine, R.N., Caine, G. (1990) which enlightens the teacher's mind and facilitates his task:

Recent Research Suggests	Teaching Suggestions
The brain performs many functions simultaneously. Learning is enhanced by a rich environment with a variety of stimuli.	Present content through a variety of teaching strategies, such as physical activities, individual learning times, group interactions, , and musical interpretations to help orchestrate student experiences.
Learning engages the entire physiology. Physical development, personal comfort, and emotional state affect the ability to learn.	Be aware that children mature at different rates; chronological age may not reflect the student's readiness to learn. Incorporate facets of health (stress management, nutrition, exercise) into the learning process.
The search for meaning is innate. The mind's natural curiosity can be engaged by complex and meaningful challenges.	Strive to present lessons and activities that arouse the mind's search for meaning.
The brain is designed to perceive and generate patterns.	Present information in context (real life science, thematic instruction) so the learner can identify patterns and connect with previous experiences.
Emotions and cognition cannot be separated. Emotions can be crucial to the storage and recall of information.	Help build a classroom environment that promotes positive attitudes among students and teachers and about their work. Encourage students to be aware of their feelings and how the emotional climate affects their learning.
Every brain simultaneously perceives and creates parts and wholes.	Try to avoid isolating information from its context. This isolation makes

	<p>learning more difficult.</p> <p>Design activities that require full brain interaction and communication.</p>
Learning involves both focused attention and peripheral perception.	<p>Place materials (posters, art, bulletin boards, music) outside the learner's immediate focus to influence learning.</p> <p>Be aware that the teacher's enthusiasm, modeling, and coaching present important signals about the value of what is being learned.</p>
Learning always involves conscious and unconscious processes.	Use "hooks" or other motivational techniques to encourage personal connections. Encourage "active processing" through reflection and metacognition to help students consciously review their learning.
We have at least two types of memory: spatial, which registers our daily experience, and rote learning, which deals with facts and skills in isolation.	<p>Separating information and skills from prior experience forces the learner to depend on rote memory.</p> <p>Try to avoid an emphasis on rote learning; it ignores the learner's personal side and probably interferes with subsequent development of understanding.</p>
The brain understands best when facts and skills are embedded in natural spatial memory.	Use techniques that create or mimic real world experiences and use varied senses. Examples include demonstrations, projects, metaphor, and integration of content areas that embed ideas in genuine experience.
Learning is enhanced by challenge and inhibited by threat.	Try to create an atmosphere of "relaxed alertness" that is low in threat and high in challenge.
Each brain is unique. The brain's structure is actually changed by learning.	Use multifaceted teaching strategies to attract individual interests and let students express their auditory, visual, tactile, or emotional preferences.

Table 2 Implications for Teaching

## CULTURAL VARIABLES

Underlying the complex combinations of affective variables that make up an individual's personality are the cultural differences that an individual brings to the learning situation. Culture governs behaviour at a sub-conscious level. It is "an organised body of rules, allowing for individual differences, concerning the ways individuals bound together by such things as common boundaries, customs, institutions, values, languages, non-verbal behaviour, arts, should behave towards one another and toward objects in their surroundings" (Wolfgang, 1979, p. 162). Culture is not fixed. It is always changing and evolving. Language is an important manifestation of a culture, and learning a second language involves some degree of learning about the culture of which the language is a part. Learners must discern important differences between their own culture and the culture of the language to be learned. Gardner and Lambert (1972) argue that a positive attitude towards the new language, and a desire to know the culture, are related to higher levels of achievement in foreign language learning. Language learners need to recognise that cultural groups have different characteristics, and may have different sets of values and beliefs, but the learner also needs to be cautious not to stereotype these differences by oversimplifying them.

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#### Elisabeth Smith

Implications of Multiple Intelligences Theory  
for Second Language Learning  
by Elisabeth Smith Post-Script, Volume 2,1

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## GLOSSARY

In this glossary we have included the items which have technical meaning in our research work. We have not included words for which definitions can readily be found in a dictionary.

**Behaviorism:** a psychological theory which states that all learning takes place through the establishment of habits. Habits are formed through practice, repetition and memorization.

**Bodily-Kinesthetic Intelligence:** a biopsychological potential which involves using one's body for processing information in order to solve problems or build products.

**Cognitive:** A term that describes the process people use for remembering, reasoning, understanding, problem solving, evaluating, and using judgment. Cognition, more simply, is what a person or child knows and under-stands, or the process of knowing.

**Connectionism:** a theory which views language as a complex system of units which become interconnected in the mind as they are encountered together.

**Contiguity theory:** specifies that all learning was a consequence of association between a particular stimulus and response.

**Criterion-referenced assessment:** an assessment where an individual's performance is compared to a specific learning objective or performance standard and not to the performance of other students.

**Descriptive study:** research which does not involve any manipulation, change or intervention in the phenomenon being studied. The researcher's goal is to observe and record what is happening.

**Eclectic Approach:** a method of teaching that does not rely on any one approach but rather gets the best from multiple approaches

**Foreign language learning:** it refers to the learning of a second or third language in a context where the target language is not used in the community.

**Formative assessment:** assessment that provides feedback to the teacher for the purpose of improving instruction.

**g Factor:** the theory states that there exists a single, monolithic, and measurable, general mental ability in humans referred to as g.

**Gestalt:** a German word for "form", defined as an organized whole in experience. The Gestalt psychologists advanced the theory which explains psychological phenomena by their relationships to total forms rather than their parts.

**High-stakes test:** a test used to provide results that have important, direct consequences for examinees, programs, or institutions involved in the testing.

**Information processing:** This psychological theory compares the human brain to a computer.

**Intelligences:** biopsychological potentials for processing information, solving problems, and developing products valued by the culture in which the person resides

**Interpersonal Intelligence:** a biopsychological potential which involves a person's ability to understand the intentions, motivations, and desires of other people and, therefore, to relate effectively with other people.

**Intrapersonal Intelligence:** a biopsychological potential to understand oneself and to construct an effective working model of personal capabilities and difficulties as well as to employ such knowledge for managing one's life.

**Linguistic Intelligence:** a biopsychological potential which involves the ability to learn and use spoken and written language to process information and achieve specific goals.

Logical-Mathematical Intelligence : a biopsychological potential which involves the ability to conduct logical analysis of problems as well as scientific investigations and to carry out mathematical operations.

Multiple Intelligences : an approach developed by psychologist and educator Howard Gardner, looks at intelligence not as a single concept, but as varied areas of human ability that shape behavior and learning

Musical Intelligence: a biopsychological potential which involves the ability to perform, compose, and appreciate musical patterns.

Naturalist Intelligence: a biopsychological potential which involves the ability to recognize and classify many species that constitute the flora and fauna of a person's environment.

Neuroscience: a branch of psychology, also called physiological psychology. It is the study of the functioning of the nervous system which includes the structures and functioning of the brain and its relationship to behaviour.

Norm-referenced test: an objective test that is standardized on a group of individuals whose performance is evaluated in relation to the performance of others; contrasted with criterion-referenced test. Most standardized achievement tests are referred to as norm-referenced.

Online Learning: educational technology using computer-mediated communication facilities that generally arise from the use of Internet and Web technology.

Portfolio: a portfolio is a collection of work, usually drawn from students' classroom work

Positivism: the philosophy that teaches that the only reality is that which is perceived by the senses; the only truth is that which is empirically verified.

Rationalism: the philosophical position which asserts that all knowledge can be derived from reason, without appeal to experience.

Spatial Intelligence: the biopsychological capacity to recognize and manipulate patterns in both wide spaces and confined areas.

Summative assessment: a culminating assessment which gives information on students' mastery of content, knowledge, or skills.





## APPENDICES

### APPENDIX A

#### Walter McKenzie's Multiple Intelligence Inventory

##### Part I

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

##### Section 1

- \_\_\_\_\_ I enjoy categorizing things by common traits
- \_\_\_\_\_ Ecological issues are important to me
- \_\_\_\_\_ Hiking and camping are enjoyable activities
- \_\_\_\_\_ I enjoy working on a garden
- \_\_\_\_\_ I believe preserving our National Parks is important
- \_\_\_\_\_ Putting things in hierarchies makes sense to me
- \_\_\_\_\_ Animals are important in my life
- \_\_\_\_\_ My home has a recycling system in place
- \_\_\_\_\_ I enjoy studying biology, botany and/or zoology
- \_\_\_\_\_ I spend a great deal of time outdoors
- \_\_\_\_\_ TOTAL for Section 1

##### Section 2

- \_\_\_\_\_ I easily pick up on patterns
- \_\_\_\_\_ I focus in on noise and sounds
- \_\_\_\_\_ Moving to a beat is easy for me
- \_\_\_\_\_ I've always been interested in playing an instrument
- \_\_\_\_\_ The cadence of poetry intrigues me
- \_\_\_\_\_ I remember things by putting them in a rhyme
- \_\_\_\_\_ Concentration is difficult while listening to a radio or television
- \_\_\_\_\_ I enjoy many kinds of music



- \_\_\_\_\_ Musicals are more interesting than dramatic plays
- \_\_\_\_\_ Remembering song lyrics is easy for me

\_\_\_\_\_ TOTAL for Section 2

### Section 3

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

\_\_\_\_\_ TOTAL for Section 3

### Section 4

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

\_\_\_\_\_ TOTAL for Section 4

### Section 5

- \_\_\_\_\_ I learn best interacting with others
- \_\_\_\_\_ The more the merrier
- \_\_\_\_\_ Study groups are very productive for me
- \_\_\_\_\_ I enjoy chat rooms
- \_\_\_\_\_ Participating in politics is important
- \_\_\_\_\_ Television and radio talk shows are enjoyable
- \_\_\_\_\_ I am a "team player"
- \_\_\_\_\_ I dislike working alone



- \_\_\_\_\_ Clubs and extracurricular activities are fun
- \_\_\_\_\_ I pay attention to social issues and causes
- \_\_\_\_\_ TOTAL for Section 5

#### Section 6

- \_\_\_\_\_ I enjoy making things with my hands
- \_\_\_\_\_ Sitting still for long periods of time is difficult for me
- \_\_\_\_\_ I enjoy outdoor games and sports
- \_\_\_\_\_ I value non-verbal communication such as sign language
- \_\_\_\_\_ A fit body is important for a fit mind
- \_\_\_\_\_ Arts and crafts are enjoyable pastimes
- \_\_\_\_\_ \_Expression through dance is beautiful
- \_\_\_\_\_ I like working with tools
- \_\_\_\_\_ I live an active lifestyle
- \_\_\_\_\_ I learn by doing
- \_\_\_\_\_ TOTAL for Section 6

#### Section 7

- \_\_\_\_\_ I enjoy reading all kinds of materials
- \_\_\_\_\_ Taking notes helps me remember and understand
- \_\_\_\_\_ I faithfully contact friends through letters and/or e-mail
- \_\_\_\_\_ It is easy for me to explain my ideas to others
- \_\_\_\_\_ I keep a journal
- \_\_\_\_\_ Word puzzles like crosswords and jumbles are fun
- \_\_\_\_\_ I write for pleasure
- \_\_\_\_\_ I enjoy playing with words like puns, anagrams and spoonerisms
- \_\_\_\_\_ Foreign languages interest me
- \_\_\_\_\_ Debates and public speaking are activities I like to participate in
- \_\_\_\_\_ TOTAL for Section 7

#### Section 8

- \_\_\_\_\_ I am keenly aware of my moral beliefs
- \_\_\_\_\_ I learn best when I have an emotional attachment to the subject
- \_\_\_\_\_ Fairness is important to me
- \_\_\_\_\_ My attitude effects how I learn
- \_\_\_\_\_ Social justice issues concern me
- \_\_\_\_\_ Working alone can be just as productive as working in a group
- \_\_\_\_\_ I need to know why I should do something before I agree to do it
- \_\_\_\_\_ When I believe in something I will give 100% effort to it



- \_\_\_\_\_ I like to be involved in causes that help others
- \_\_\_\_\_ I am willing to protest or sign a petition to right a wrong
- \_\_\_\_\_ TOTAL for Section 8

#### Section 9

- \_\_\_\_\_ I can imagine ideas in my mind
- \_\_\_\_\_ Rearranging a room is fun for me
- \_\_\_\_\_ I enjoy creating art using varied media
- \_\_\_\_\_ I remember well using graphic organizers
- \_\_\_\_\_ Performance art can be very gratifying
- \_\_\_\_\_ Spreadsheets are great for making charts, graphs and tables
- \_\_\_\_\_ Three dimensional puzzles bring me much enjoyment
- \_\_\_\_\_ Music videos are very stimulating
- \_\_\_\_\_ I can recall things in mental pictures
- \_\_\_\_\_ I am good at reading maps and blueprints
- \_\_\_\_\_ TOTAL for Section 9

#### Part II

Now carry forward your total from each section and multiply by 10 below:

Section	Total Forward	Multiply	Score
1		X10	
2		X10	
3		X10	
4		X10	
5		X10	
6		X10	
7		X10	
8		X10	
9		X10	



## Appendix A (Continued)

### Part III

Now plot your scores on the bar graph provided:

100									
90									
80									
70									
60									
50									
40									
30									
20									
10									
0	Sec 1	Sec 2	Sec 3	Sec 4	Sec 5	Sec 6	Sec 7	Sec 8	Sec 9

## Part IV

### Key:

Section 1 – This reflects your Naturalist strength

Section 2 – This suggests your Musical strength

Section 3 – This indicates your Logical strength

Section 4 – This illustrates your Existential strength

Section 5 – This shows your Interpersonal strength

Section 6 – This tells your Kinesthetic strength

Section 7 – This indicates your Verbal strength

Section 8 – This reflects your Intrapersonal strength

Section 9 – This suggests your Visual strength

### Remember:

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



## APPENDIX B

### Samples of Pupils' Answers

## APPENDIX C

## Student Feedback Questionnaire

	Strong agreement	Some agreement	Little agreement	No agreement
1-The content of the poem is interesting.	32	02	00	00
2-The activities are challenging.	17	15	02	00
3-The work load is fair	07	18	07	02
4-The class urges me to think critically	22	10	01	01
5-The pictures are attractive	05	19	10	00
6-The assignments are clear.	14	14	03	03
7-The teacher facilitates my understanding of the material.	31	03	00	00
8-Teacher is approachable outside of class.	20	10	01	01
9-The teacher cares about the students and their concerns.	28	06	00	00
10-The teacher welcomes and encourages interpretations other than her own.	18	12	01	03
11-The teacher appreciates each pupil as an individual	32	00	00	02
12-The teacher shares the teaching with students.	26	08	00	00
13-I am satisfied with my effort in this class.	13	15	05	01
14-I had hands on activities	20	10	04	00
15- I had interesting group work	23	05	01	04



## APPENDIX D

## 2 Teacher Feedback Questionnaire with Answers

1- How did you find the lesson content?

Teacher: Very interesting .It is related to one of the units of our syllabus. I found it funny and entertaining too.

2- Were you comfortable contributing to discussion in class?

Teacher: Of course I was comfortable because the material is motivating and involves pupils in discussion. Pupils did participate because they were happy giving their own opinions.

3- How confident did you feel in using the MI materials?

Teacher: Linguistically I was so confident. But thematically, that is the meaning behind the fable, I was not so confident. I was not sure my pupils would grasp well the meaning and the moral of the story.....

4- Did you find the materials covered at a suitable level or not? Why?

Teacher: Yes very suitable. My pupils were allowed to use dictionaries and exchange ideas. They were cooperating .This technique facilitated the task. But still, as I said before, I was not sure my pupils could understand the moral behind the fable.

5- Did you find the lessons intellectually challenging or not? Why?

Teacher: Very challenging. Each group wanted to do better and be the best. The group work was very helpful and did enhance their willingness to work harder.

6- Would you recommend these MI based materials to other pupils?

Teacher: Yes, sure! I'm going to teach the same lesson with the other classes. This would enrich Unit 2 of our syllabus because it would certainly motivate pupils to do better.

7-How would you rate this material in terms of your year's work overall?

Teacher: More efficient. The pupils would never get bored when using MI techniques: discussing, moving around, using pictures and having fun while learning do motivate the pupils to participate in class and do well.

8-How did your pupils respond to the MI activities?

Teacher: Very well, they liked group work and the "freedom" to move around and exchange ideas. The pictures of the animals and the topic itself were interesting for them.

9- How would you describe their performance in class?

Teacher: Frankly speaking, it was not excellent. But on the whole, the participation was lively and fruitful. It is because we are not used to working with MI theory.

10-What effect did the MI materials have on the pupils' achievement?

Teacher: Pupils had satisfactory results .They gave very intelligent, personal responses. I did not expect it at all.

## APPENDIX D

Develop your Intelligences with the Piercing Star



*The best people  
are those who  
are most useful  
to others*



Multiple Intelligences and Teaching English as a Foreign Language  
The Case of Second-Year Pupils in Malika Gaid Secondary School  
Sétif

DEVELOP YOUR INTELLIGENCES  
WITH

# THE PIERCING STAR

Poems



Multiple Intelligences and Teaching English as a Foreign Language  
The Case of Second-Year Pupils at Malika Gaid Secondary- School  
Sétif

DEVELOP YOUR INTELLIGENCES  
WITH

THE PIERCING STAR

**A Series of Poems Treating Multiple Intelligences**

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**FOREWORD**

I have followed Professor Hammoudi's career with interest over a number of years. In 2004 we were both inspecting schools in our respective countries, Algeria and England and had a common interest in MI theory. He, now studying for a Doctorate in MI theory, and I conducting workshops on MI theory in India, developed our work further by running workshops on MI at Sétif University, Algeria in 2008. Each has inspired the other.

Professor Hammoudi, through his poems, questions and activities, has taken the concept of multiple intelligences a step further, when he asks students to discuss the theory through the 'eyes and feelings' of humans, animals and plants. The poems can be read at many levels. The youngest child will enjoy them simply as animal and plant story/poems. The adult will enjoy their humour at a deeper level and the serious student, by responding to the searching questions he asks, will confirm and challenge concepts that they recognise or refute.

This is a thought provoking book with a strong moral background. Written for teachers, this book can be used in many ways. Themes can be followed, individual poems can be studied, scientific and religious understanding can be discussed and research should be carried out. In whatever way it is used, it will demand from students thought, debate, research and ultimately for them to draw their own conclusions. It challenges them to consider the importance of morality, it warns them of the 'wolf dressed in lamb's clothing' and it guides them towards that ultimate decision as to how they will choose to live their own life. Through the eyes of the natural world we are asked to reflect and ponder, using the whole of our brains and as many intelligences as we can muster.

Margaret Warner

International Education Consultant

Oxford 2009

## INTRODUCTION

### Teaching Poetry in EFL Class

Traditionally and still up to now, very few poems are included in the textbooks for secondary school students in Algeria. Nonetheless, most of the teachers would not give much importance to this teaching point and would skip the lesson in a very short time. Some teachers simply ignore the poem and shift to another teaching point for they tend to believe it is less important than the four traditional skills. The role of poetry is unfortunately underestimated.

As we know, most of the materials written for Algerian EFL class focus on some topics for grammar or for communicative competence and backed up with the competency based approach. Being exposed to the kind of material for a long period of time, pupils are bound to become tired of them for lack of intellectual inspiration and personal interest. But poems, especially fables, are terrific materials for EFL class. They can turn the dullness into excitement, for they can offer many benefits: pleasures of sound, rhythm and meaning, imagery and symbolism, feeling, thoughts and morals. With the teaching of fables, students can be motivated not only to learn English but also 'to appreciate the deeper dimension and exquisiteness of the language.' Poetry in general does foster the aesthetic sense of students and develop their intelligences. Reading them would make the reader more receptive to imagination and urges him to look deep into himself and look around the outer world. It is the kind of the intellectual process that broadens the brain, enhances one's multiple intelligences and makes the

lifelong reader. Therefore, the poems in textbooks should not be regarded as empty teaching points; on the contrary, they should be tackled with more care.

**Pay Attention !**

before starting to read.....  
Engage your whole brain.



## BORN TO BE SMART



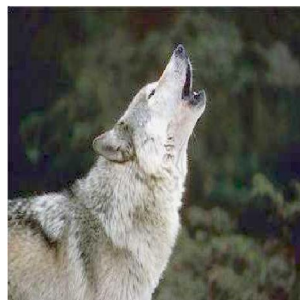
Fox

The lion our teacher, our king is dead  
Who's going to ensure us meat and bread?  
Let's gather and elect a new head,  
The fox hurried and said.



OWL

The noble animals in an "SOS" meeting,  
A new leader they were seeking  
They came out with a final decision;  
Yeah-Yeah donkey will guide them with precision.  
(Yeah-Yeah donkey is the new leader, teacher and  
the new king.)



WOLF

Animals of the jungle dance and sing  
This party's for our new teacher, our king  
With his wisdom we'll be led  
Eliminate hunger and we'll be fed  
Our new leader symbolizes courage and fame  
Even god gave him the most beautiful name  
Check dictionaries, they say the same:  
'Don' stands for teacher, 'key' winner of every game.



WOLF

The foxes, wolves ..... and tigers  
Sat by the new king, they're his advisors  
We are here, O mighty boss  
Obey us and you'll never get at a loss  
We have prepared for you a speech  
Deliver it tomorrow, it does teach  
It bans segregation and ends vice  
Into friendship turns enmity between cats and mice.



TIGER



Yeah-Yeah donkey delivers his speech:

From now on, no fear no fight  
Shall govern our kingdom, but justice and light  
I'll do my best to turn into day your night  
It's a promise, brothers, it's black on white



Scorpions! Snakes! Empty yourselves from poison,  
Forget hatred, enmity and come to reason  
You don't need it anymore, you're under my protection  
Obey our law, that's the best solution  
(Scorpions, snakes ..... became poisonless)



**TORTOISE**

Tortoise, you are so kind but too slow,  
To help you, here's the solution you must know  
Take off your heavy dirty shell,  
It's of no use, since with foxes you might dwell  
(Tortoises, snails ...threw away their shells.)



**HEDGEHOG**

Hedgehog, your hair's in end with fright  
No fear my dear, our law is fair and right  
Your stiff spines aren't needed today  
Shave them, let them be blown away  
(Hedgehogs .....cut off their spines.)



**BUFFALO**

Cows, buffalos, goats and deers,  
Get rid of your horns, get no fears  
The age of darkness has gone, no shed tears,  
Our law is sacred; it lasts for years and years  
(Cows, buffalos ...cut off their horns)



**WOLF**

This is our new law, my dear friends,  
Swear you obey it, raise your left hands!



**TIGER**

Obey your teacher, your king his majesty,  
Angel to us doesn't appear he?  
Clap you hands, he's set you free,  
Enlightenment of his wisdom will surely save thee



**OWL**

E

The poor animals were left defenseless  
An easy prey they became, without resistance  
They understood they were fooled, but tis too late,  
This is the end of whoever lets others decide his fate  
  
With consciousness, somewhere, new animals will be born,  
They will decide the new law must be torn  
They will declare against it a ferocious battle,  
And they will swear they won't be dumb driven cattle



Horrible experience, we must say  
But still, it was a very wise day  
For it taught us the value of Nay  
For it taught us: “think first then play.”

### TORTOISE

I was born  
to be king  
And I am the  
king !




---

## GLOSSARY

**Don:** a teacher, a university lecturer

**Vice:** dishonesty and lust

**Poisonless:** without poison

**Stiff:** firm and hard

**Thee:** you

**Deers:** normally the plural is deer

**Tis:** it is

**Fate:** what happens to a particular person or thing. It is often inevitable

Ferocious: fierce and violent

Nay: no

---

## Activities

- 1- Why did the noble animals select the donkey as the new teacher/king?
- 2- The speech delivered by "Yeah-Yeah donkey" was meticulously prepared. What is the purpose behind it?
- 3- "The value of Nay" quoted in the poem was said to be very high. How? Give examples.
- 4- Look at the typical professions for each intelligence in the poem. Aren't these valued professions in our society? Give examples.
- 5- Look at the famous characters in the poem. They are all smart, but in very different ways. Sort out the intelligence(s) these characters exhibit.
- 6- If you were to replace the head of "Man" with the head of an animal, which one would you choose? Why?
- 7- If you were to replace the head of "Woman" with the head of an animal, which one would you choose? Why?
- 8- Draw the bodies of "Man" and "Woman" with the head of the chosen animals. Show them to your peers.
- 9- Using "Copy and Paste" technique, make a human body with the head of an animal. (When computers are available)
- 10- Why is an owl said to be wise? What intelligence(s) does he have? How about the other animals cited in the poem? Do some research to find out.
- 11- Sort and categorize information about the different animals.
- 12- What do these animals have in common? How do they differ?
- 13- Try to imitate the sounds of the animals cited in the poem.
- 14- What animal would you like to be? Why?
- 15- As part of a homework assignment, set students to select music that best goes with the reading of the poem. (Reading aloud and silent reading)
- 16-- Act out the poem, in groups, through role –playing

## "Born to be Smart" MI Lesson Plan

### Aims

-Students will analyze and evaluate social issues in order to become socially aware citizens.

-Students will evaluate stories and issues to develop critical thinking skills related to environmental awareness of predators.

### Lesson Objectives:

Affective - The students will read the fable story, and analyze how they feel about the predators in the story.

Cognitive – Pupils will evaluate the fable to develop critical thinking skills related to environmental awareness.

Materials: (For a class of 34 students)

- Student notebooks
- Pens and pencils
- Bilingual dictionaries
- 34 handouts of "Born to be Smart" poem
- Pictures/ Data show.
- Chalkboard

## TEACHING PROCEDURES

## 1- Brainstorming

The teacher sticks a picture of a lion on the chalkboard and set pupils to give adjectives which describe this animal./ The teacher writes pupils' answers on BB.

## 2-New lexis

The teacher introduces vocabulary items critical to understanding the poem as a whole (key words), using adequate visual aids.

Pupils are encouraged to use context clues to derive meaning by themselves and use dictionary when necessary.

## 3- Read, Tell and Write (Integration of the four skills).

- a- The teacher splits the class into five groups. She gives each group a part of the fable and set them to read it silently and summarize its content. Pupils discuss and guess meaning from context/use dictionary when necessary and do the task. Bilingual dictionaries are allowed. The teacher moves around, checks and helps when necessary.
- b- Each group writes a summary of the part they are supposed to summarize. A representative of each group stands in front of the class and reads aloud his summary. The groups take notes while listening in order to complete the missing parts of the fable. The teacher moves around, checks and helps when necessary.



- c- The teacher sets individuals to read the whole fable story.
- d- The teacher elicits the moral of the fable and relates it to the pupils' daily life.

4- The teacher plays the "Born to be Smart" video using the data show and sets pupils to discuss it.

#### 5-Role-play

The teacher sets the pupils to act out the poem, in groups, through role –playing

6- The teacher selects some MI based activities which accompany the poem "Born to be Smart" and sets the pupils to do them. The teacher has to take into account the pupils' age, level and interest. Pair and group work should be fostered.

7- Evaluation: Formal assessment is done to evaluate the pupils' comprehension of the poem.



# FIRE AND WATER

IGNARE: Hi!

SAVANO: Hhhh..... Hi!

IGNARE: Rendez-vous?

SAVANO: Who?

IGNARE: You!

SAVAN: Why?

IGNARE: To try

SAVANO: Try what?

IGNARE: To have with me a tot

SAVANO: I- have- with- you a tot?

IGNARE: Yes, why not?

SAVANO: Are you alright?

IGNARE: And pretty and bright

SAVANO: Go to hell!

IGNARE: It's there where I dwell

SAVANO: Now I'll destroy your bones with these sharp stones

IGNARE: Stop, I won't hurt your life. I'm leaving...You've won the strife.

SAVANO: Hey! Wait!

IGNARE: Tis Too late

SAVAN: What's your name please?

IGNARE: AIDS, THE FAMOUS KILLER DISEASE!



## Glossary

Tot: child

Strife: violent and angry disagreement, fight

Tis: it is

AIDS: Acquired Immune Deficiency Syndrome

## Activities

- 1- Write or read aloud the poem, ignore the last exchange. Set students to guess and find this last exchange.
- 2- What does "water" represent in this poem? Comment.
- 3- What does "fire" represent in this poem? Comment.
- 4- Savano uttered his first expression with a stutter. Why?
- 5- What do the names "Savano" and "Ignare" represent? Explain.
- 6- The poet seems to be male- chauvinist. How?
- 7- What musical background could you use to make learning/memorizing more effective?
- 8- Act out the poem, in pairs, through role playing.
- 9- Discuss the causes of AIDS and different ways we can use to eradicate it.
- 10- Create a table for a study of AIDS using the following information:

What I know	What I have learned in school	What I want to know

# The Crow and the Man



Hey terrible man! Wake up! Open your ears, hang up your head!

Though equipped with the smartest brain, you're still ill-bred

You believe I'm dull, useless and even your professor said:

Master Reynard fooled me and got possession of my bread

Wrong! Immoral! A lie it is, a big non-sense that is so dread

I'm the king of all birds, the strongest, haven't you read?

Didn't I teach you grandfather how to bury the dead?

Didn't I guide Cain, when at a loss, when he needed to be led?



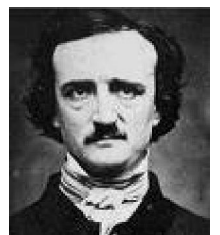
La Fontaine

Your other professor Mr. "X" denied my being meritorious

Of respect, source of wisdom and maker of the glorious

He accused me, because of his ignorance which is obvious

That I am 'Grim, ungainly, ghastly, gaunt and ominous'



Edgar Allan Poe

I gave him lessons: when full, hide and store food for later use

I shared with him my intelligence but foolishly he blew his fuse

When he laughed at me, ignored my advice; caused food abuse

Who is grim, now? I or that teacher who spoiled the profuse ?

Another lesson to you ungrateful man; a lesson full of ingenuity

The true thinker discovered it using logic and scientificity:

I'm weatherall; my intelligence has given me flexibility

Unlike other birds, resisting the obstacles with adaptability



Thanks Dr. Stanley!

My Hyperstriatum is my problem solver; ask Mr. Stanley Cobb

Yours is a problem dictator, to survive: cheat, steal, and even rob

You are causing your own destruction; you've missed the right job

You are building your future with dirt and water; this is not true cob.



Dr. Stanley

Stupid man, you are killing, devouring birds with rage

The beautiful musical ones, you imprison in a cage

Your misbehavior made me learn a new intelligence page

Now, in the 21<sup>st</sup> century, you are the fool, I am the sage



Horrible creature, my black dress is the source of your fear

My 'caah-caah-caah', my majestic music, you hate to hear

Thanks God, my being in a cage, next to you, you can't bear

Here resides my intelligence, an intelligence you can never share.



If you men had wings, bore black feathers, and use hypocrisy and bows

Never would you succeed to turn wiser or more intelligent than the crows

History has been teaching you how you should behave and still shows

The life tree, when irrigated with salty and filthy water, never up grows.

Now, learn by heart my wisdom message in the following e-beam

Engrave it in your brain; make it an ever lasting objective dream:

Never take all that looks thick yellowish-white for milk cream

A true thinker understands "appearances are not what they seem".

## Glossary

**Hang up:** raise

**Ill-bred:** rude and behaving badly

**Dull:** boring and not interesting

**Master:** important and influential

**Reynard:** fox –fable by La Fontaine; the fox and the crow

**Dread:** old fashioned; causing worry and anxiety

**Professor "X":** Edgar A. Poe

**Grim:** worrying, without hope

**Ungainly:** awkward and without grace in movement

**Ghastly:** unpleasant, extremely bad

**Gaunt:** unattractive, source of sadness and mourning

**Ominous:** unpleasant and threatening

**Fuse:** safety part in an electrical device to stop working if the electric current is too high.

The fuse in the poem refers to the human's brain.

**Profuse:** wealth

**Ingenuity:** thinking of smarter new ways of doing something:

**Hyperstriatum** : part in the brain

**Cob:** mixture of materials made from clay, lime vegetable fibers to construct buildings.

**Bows:** curtsies to show respect to someone important,

**Filthy:** extremely dirty

**E-beam:** electronic bundle; electronic message

## Activities

1. What does the crow represent in your community? Discuss by referring to his sound, color etc.
2. Who does "professor" refer to? Line 3
3. Is the crow mentioned in your religion? If yes, how is it described?
4. In which sacred book, (Torah, Bible or Koran...) is it said that the crow taught man how to bury the dead? What is the name of this man? What did he bury?
5. Who does "Mr. X" refer to?
6. What did "Mr. X" say about the crow? What is the title of his work?
7. The crow says "I am weatherall". What does he mean?
8. Do some research on "the hyperstriatum" and Dr. Stanley Cobb.
9. The crow says that we are causing our own destruction. How?
10. How does the crow describe his intelligence?
11. Discuss the following: "Appearances are not what they seem." Give examples.
12. Suppose you have the ability to understand the language of birds. Imagine an interview you have had with one bird.
13. As part of a homework assignment, set students to select music that best goes with the reading of the poem.
14. Create a table for a study of the crow using the following information:

What I know	What I have learned in school	What I want to know

# SHAME ON ME, IDIOCTOR !

I have been studying for years and I am now educator  
A noble and beneficial role in society I should play  
Suddenly, and willingly I have turned into a tractor  
The wicked ignorant drove me to the wrong way  
He became the driver, and I, a mechanic dictator  
He just gives orders and his orders I must obey:  
“Add marks to “X”, not to “Y”, dearest calculator”  
That is his favorite logo; all to me, he prefers to say  
Shame on me, the ignorant has become my mentor  
I’ve turned a chess pawn; he's the director of the play.  
What is this life if a teacher to his mission is a traitor?  
What would school be if cheating became the order of the day?



## GLOSSARY

**Idiocrator:** word meaning that the educator has turned an idiot.

**Wicked:** someone who is morally wrong and bad

**Logo:** design used by companies or individuals to advertise their products

**Mentor:** advisor, counselor

**Chess pawn:** pieces in the game of chess

**Traitor:** unfaithful, not loyal



## Activities

1. The word "idiocator" is constituted of two words. What are they?
2. What does the word "willingly" express in the poem?
3. In your opinion, what makes the "idiocator" obey the orders of the ignorant?
4. In this context, is the "ignorant" smart or not? If yes, what type of intelligence does he have?
5. How about "idiocator", is he smart or not? Justify.
6. Sort out the expressions which clearly show that there is introspection and intrapersonal intelligence?
7. What if you were an educator, would you be able to resist to the ignorant's attempts to turn you into an "idiocator"? How would you behave?
8. As part of a homework assignment, set students to select music that best goes with the reading of the poem.

11- Create a table for a study of educators using the following information:

How should you behave in class?	Why do you like/dislike your educator?	Describe your ideal educator



# HI, Mr. Governor!

Mr. Governor, with his committee held a meeting

The lack of drinking water was the main subject

Destroying the forest, in its place a big dam building

Would solve the problem, would turn the wrong correct

As fast as lightning, reached the animals this horrible tiding

A way must be found at once, to stop this project

Mr. Owl, sent as messenger, the animals representing

Used very wise words, a favorable respond to expect

A cannon 'BOOM!' at the guest was the governor's answering

The Owl flew away, his proposals received a total neglect



A second messenger, the smart fox, promised to be convincing

Gave the governor, a strong missive, one with a magical effect

The governor's answer: wild grey hounds, the poor fox were chasing

They tore him into pieces, poor Reynard's attempt was without affect



The lion broke into a passion of tears, then on his fellows venting  
His anger; he wanted a solution, a true one that would his forest protect



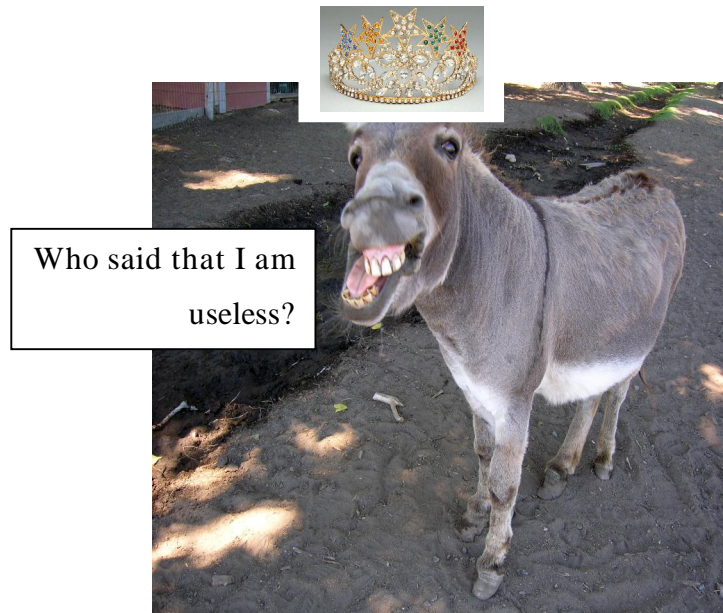
The she-donkey: Majesty, you're a king, shame is your tears shedding  
Let me try the last chance, I may, the governor's weak point, detect  
The lion guffawed, but, the donkey's SOS attempt, decided allowing  
Who knows? Perhaps the stupid messenger, the problem would erect



The she-donkey immediately to the governor's castle was heading  
Strange! She was warmly welcome, the governor expressed deep respect  
He Okayed her enquiry and in honor of her, organized dinner with dancing  
He appointed her vise-governor, with a decree, no use for any elect

May I governor see and tell my family about your generous responding?  
Of course, darling .Your inquiries are orders, no one is allowed to reject  
From now on, sweet honey, with me, all life decisions you will be taking  
The white is black if you deciding, you're the rightful; the fully perfect

The she-donkey, pardon, the new ruler, in a Mercedes her big family visiting  
Was met with 'tchin-tchin', because success her big smile did reflect  
(With a hug)What did you do to convince the governor? The lion was asking  
Well Majesty, the governor understood me because he belongs to my sect  
No message passes between him and the smart, when verbally interacting  
The green, for him, is the dull; the red, his worst enemy, is the intellect



## GLOSSARY

**Tiding:** news

**Missive:** official and formal message

**Hounds:** dogs used for hunting foxes

**Chase:** to run after someone or something in order to catch them

**Affect:** influence. Verb: to cause something to change

**Venting:** expressing negative emotions in a forceful and often unfair manner

**Guffaw:** laugh loudly at something stupid

**Erect:** solve

**Elect:** elections

**'Tchin-tchin':** French expression meaning cheers!

**Sect:** a group, a family

**Smart:** clever, intelligent

**Dull:** boring and unpleasant

## Activities

1. Why did the lion choose Mr. Owl as first messenger? How do the characteristics of the owl fit this difficult mission?
2. Why did the lion choose Mr. Fox as second messenger? How do the characteristics of the fox fit this difficult mission?
3. Why did the lion guffaw?
4. What does the governor mean by "the black is white if you deciding?"
5. What do the words "red" and "green" refer to?
6. Why did the governor respond positively to the she-donkey's proposal?
7. Is the donkey in this context smart or not? What type of intelligence does she have?
8. Do we have similar situations in our society? Discuss.
9. Tell your peers the whole story using your own words.
10. Set students to ask "What if questions" to let them express themselves creatively. Examples:
  - What if animals and humans could feel each other's feelings?
  - What if animals could feel each other's feelings? (Perhaps they do).
11. Create a table for a study of the governing systems around the world, using the following information:

What I know	What I have learned in school	What I want to know

# The serpent and its rescuer

Once on a very cold day though in late spring  
 A farmer on his way home saw a dying snake  
 Put it under his jacket, and home was he heading  
 To give it warmth and care perhaps up it would wake  
 The farmer caressed the creature and was singing:  
 Saving animals rewards, when for God's sake ...



The snake woke up, feeling the man's hand caressing  
 It got scared, horrified and free it decided to break  
 The sole door to freedom was the farmer's head biting  
 And return to his sweet home near the frogs' lake  
 It bit in a rage and the poor rescuer turned to be dying  
 Then left to the lake, leaving the farmer's life at stake



Why, asked the farmer, your repay was but stinging?  
 Because, I am a snake, you forgot to be wide awake  
 But I was rescuing you, why have you opted for killing?  
 Because I learnt Man's behaviors are but a horrible fake;  
 Our Snake School Professor has never stopped teaching:  
 Our poison is our **abracadabra**; to survive never to **flake**.

Why

?

## GLOSSARY

**Stinging:** causing painful injury with poison

**Fake:** something that deceives to cause harm

**Abracadabra:** magic trick, in order to help one perform successfully

**Flake:** crumble, break into pieces then disappear

## Activities

1. Was the farmer right when he tried to save the snake?
2. What type of intelligence should the farmer possess to avoid the harm of the snake?
3. Karma is said to bring good luck and security. Why didn't it protect the farmer?
4. Is the snake considered as a traitor? Why?
5. Did he make use of his intelligence? How?
6. What musical background could you use to make learning/teaching of this poem more effective?
7. Act out the poem in pairs, through role playing.
8. Sort and categorize information about different snakes existing in your area/on earth.
9. What is the ecological role of snakes?
10. Create a table for a study of snakes using the following information:

What I know	What I have learned in school	What I want to know

# I WONDER IF BIRDS...

Still night, but birds are singing a musical rhyme  
 I wonder if in their brain there is an alarm clock  
 It wakes and gives them the precise, accurate time  
 For us humans, the job was often done by the coq



They travel long distances, never get they at a loss  
 Taking 'search food test', they always pass  
 So disciplined they are; they fly behind their boss  
 I still wonder if in their brain there is a compass.



I wonder if we, humans, are smarter than birds  
 They are hard workers, genuine and never betray  
 Intelligence never means but possessing words  
 Humans think, read books, yet, they are going astray

I'm smarter!



## GLOSSARY

**Pass:** succeed

**Betray:** not to be loyal

**Astray:** away from the correct way or path, doing bad things

## Activities

1. What do the following birds have in common? How do they differ?

The crow, the pigeon, the stork and the coq

2. Make a list of the intelligences the above mentioned birds could have.
3. How could you explain the fact that birds can fly long distances and they never get lost?
4. What makes them detect the beginning of the day? Do some research.
5. Sort out the expression(s) which show that birds possess visual/spatial intelligence.
6. Create a "paint-by-numbers" picture of a bird for your classmate to paint.
7. Analyze similarities and differences between a domestic and a wild bird.
8. Suppose you have the ability to understand the language of birds, imagine an interview you have had with one bird.
9. Contrary to human beings, birds have no food problem or economic crisis. Why?
10. Some sacred books like the holy Koran states that animals in general and birds in particular have got a language. What is your opinion? Do some research to justify your answer.
11. Do other religions, yours for example, confirm that birds do communicate with one another?
12. Create a table for a study of domestic/wild birds, using the following information:

What I know	What I have learned in school	What I want to know



# *INTELLIGENCE is ...*

*Intelligence is* .....



birds that feel the light and sing when the dawn is still dark

*Intelligence is* .....



dogs that raise their ears, in total silence; roar, run then bark

*Intelligence is* .....



bats that roam the space in obscurity win the game , never misses a mark

*Intelligence is* .....



bees that never went to school but are experts in math and arch



*Intelligence is*.....

chimpanzees using sticks to fish for termites and reach for anything



*Intelligence is*.....

is vultures throwing rocks at ostrich egg; break, open then feeding



*Intelligence is*.....

the woodpecker finch using a cactus spine, grubs, out of tree branches prying



*Intelligence is*.....

crows making use of grass stems, the leaf litter probing, for ants fishing



*Intelligence* is also.....

crows using their bills to whittle twigs into hooks, tear leaves then bugs extracting



*Intelligences* is.....

The noisy musical parrot who likes, enjoys and is capable of any sounds imitating



*Intelligence* is.....

Elephants detecting far away scents thanks to their highly developed sense of smelling

## GLOSSARY

**Mark:** target

**Arch:** should be pronounced /a:k/ and it means architecture

**Cactus:** plant usually with sharp spines

**Grubs:** an insect when it has just come out of its egg

**Prying:** digging and searching

**Probing:** investigating and piercing

**Litter:** pieces of rubbish left lying on the ground in public places

**Fishing:** searching

**Whittle:** cutting off small things into pieces

**Twigs:** thin branch of a tree

**Bugs:** small insects

**Scent:** smell

**Hook:** a curved device used for catching things like the one used to catch fish

## Activities

1. Referring to Multiple Intelligences theory, what type of intelligence(s) do the different animals cited in the poem have?
2. What do these animals have in common? How do they differ?
3. What animal would you like to be? Why?
4. Observe one of the animals in the poem and draw it. Use colors to "brighten it and brighten" the mood of your classmates.
5. Collect pictures of animals living in your area, organize them in the form of a poster and exhibit them in your school.
6. Your friend wants to collect honey from a beehive but is afraid of being stung by bees. Give him some advice.
7. Complete the following poem and support it with adequate visuals:

**Intelligence** is .....+ picture

**Intelligence** is .....+ picture

**Intelligence** is .....+ picture

**Intelligence** is .....+ picture

**Intelligence** is .....+ picture

# *The Donkey and the Poet*



Now it's my turn to.....  
Mr. Poet!

Now it's my turn to speak and take revenge, Mr. Human Being

Now it's time to unveil and unmask YOU, Mr. Hammoudi Abdelhak

You pretend to be teacher, poet, thinker and all knowing

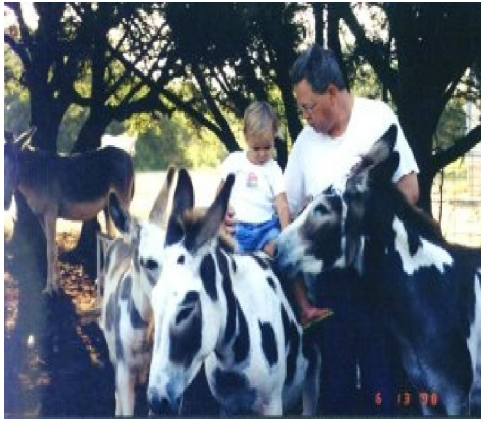
You've missed the target; you've left the truth behind your back

You've given me horrible names and these labels are never ending:

The Dirty, the Stupid, the Useless, and above all an "ass after jack"

You did hurt me in your poems though supposed the verity defending

'Defender of truth' your name is, isn't it reflected in the sacred word 'HAK'?



I was and still I am for many of you the safest and surest car  
Obediently I carry them and their goods, with softness and care  
I never complain whatever the weight or destination; heavy or far  
I walk slowly and surely, to allow my passengers to sightsee and stare

But the crazy man wants me to be faster than the plane  
He beats me mercilessly, he wants but to reach his goal  
His whip is causing me terrible and unbearable pain  
May God punish him; to hell go his body and his soul

Go back to school, Mr. POET, you have to deepen your learning  
You're worse than me, a truth you and your fellow men do always lack  
You're still illiterate, you've to read again and again, never stop revising  
Collect my lessons, distribute them worldwide, they're perfectly ad hoc

When you were helpless, who was the beast of burden perfectly responding?  
I showed friendliness, cooperation and helpfulness, but you took me for a slack  
Dishonesty, arrogance and ignorance, true misfortune to you will be causing  
Sooner or later, brutal, arrogant and merciless creature, you will go to rack



Affection, autonomy, and patience are my intelligences; to my happiness leading  
Yours because misused made you work in abeyance; they have taken you aback



What if I disrespect my nature, and behave like you Human who're still  
slumbering?

I'll be stubborn, and kick man with my both hind legs his fat and useless buttock.

.....

I apologize, donkey, for all what I said and I'm terribly regretting

We are causing your extinction; our senses are controlled by crack

I used your figure just for fun; I never meant what I was saying

I acknowledge you're the beginning; you're the flying off track



Again, dearest creature my apologies for all what I have said  
No professor can deny that you have been patient and brave  
Our hearts have turned mechanical pumps, the true ones are dead  
We are without emotions; our feelings are buried into the grave  
But I promise, smart animal, in my poems I shall write it in red:  
Perish the human who donkeys, refuses to take care of or save

## GLOSSARY

**Ass after jack:** jackass, stupid, old fashioned, acting foolishly  
**Whip:** a piece of leather used to hit animals  
**Stare:** to look for a long time and enjoy sightseeing  
**Hak:** Arabic word meaning "TRUTH"  
**Ad hoc:** appropriate, correct  
**Slack:** not active, lazy  
**Arrogance:** insolence with scorn  
**Misfortune:** bad luck  
**Rack:** decay and ruin  
**Abeyance:** not working, latent, suffering  
**Aback:** here, taking back means causing confusion  
**Slumber:** sleep  
**Crack:** drug  
**Track:** path (flying off track = runaway which allow planes to take off)



## Activities

1. What does the donkey mean by "unveil and unmask you"?
2. What type of intelligence(s) do donkeys possess? Support your answer with the most recent scientific findings.
3. What if donkeys could speak with us? What would they say?
4. Why does the donkey accuse human beings of being illiterate?
5. What made the poet regret what he wrote about the donkey?
6. Donkeys are in danger of extinction. What should we do to save them?
7. Use the poem as lyrics of a song. Make music that fits with lyrics and sing the song.(individually, in pairs or in groups)
8. Organize class outings and allow students to see and interact with a donkey .Take pictures.
9. Create a table for a study of the donkey using the following information:

What I know	What I have learned in school	What I want to know

## The Power Of the flower !

We, world of plants, take in information, analyse it and respond intelligently

This seems to you humans, a strange, unattainable and unbelievable exercise

For survival, we react to attacks by predators, naturally and chemically

From environment we decide when to send up shoots, set buds or leaves abscise

Neurotransmitters we do have, genuine researchers have discovered empirically

Sooner, we'll enlighten the concept of intelligences and it, we will revolutionize

Communication and signals, with our green partners seems to you unlikely

Yet, we have communicated with man; gave him hope, his soul we do energize

Listen and read what my family of flowers teaches you, do it carefully and critically

You will learn their intelligences; it is scientific research; never doubts or exercise:



I, **Bamboo**, symbol of longevity, strong and graceful; ready to bend but never break easily



**I, Carnation**, symbol of betrothal and engagement; enhances love and legal marriage willingly



**I, Chrysanthemum**, symbol of beauty and long life, my lovers are bound to live healthy and happily



**I, Clover leaf**, for some: symbol of Holy Trinity, for others: source of hope and behaving luckily



**I, Daisy**, symbol of innocence and integrity; my whiteness is living clean, speaking honestly



**I, Forget-me-not**, a symbol of a plea for remembrance, make friends and lovers interact sincerely



**I, Honeysuckle**, a symbol of love and generosity, I banned stinginess, urged man to work liberally



**I, Iris**, a symbol of valor, faith and wisdom; I urged my friends indeed to always interact faithfully



**I, Jasmine**, strongly scented, a symbol of love and purity, teach humankind to cooperate lovingly



**I, Juniper**, a symbol of chastity and eternity, a healthy love comes when marriage's made officially



**I, Lily**, symbol of purity, chastity, and innocence; I represent Mary, who did things angelically



**I, Lotus**, symbol for fertility, creation, and; I represent hard work done creatively and originally



**I, Orchid**, a symbol of perfection, reinforcer of the thinkers, those who struggle to live peacefully



**I, Rose**, a symbol of love and passion, a passion that involves responsibility and acting consciously



**I, Sunflower**, a symbol of infatuation, follower of the sun, hate laziness, like and work energetically



**I, Violet**, a symbol of faithfulness, humility, and chastity, all flowers deal with me respectfully

## GLOSSARY

**Shoots:** the first part of a plant that appear above the earth

**Bud:** the small part of a plant, that develops into a flower or leaf

**Abscise:** shed flowers and leaves and fruit following formation of a scar tissue

**Exorcise:** using magic to force an evil spirit to leave a person or place

**Betrothal:** causing someone to promise formally to marry someone

**Stinginess:** unwilling to spend wealth, not generous

**Chastity:** not having illegal sexual relationships

**Passion:** powerful feeling

**Infatuation:** a strong feeling of love or attraction for someone or something

## Activities

1. Do flowers really have intelligence(s)? If yes, what type of intelligence(s) do they have?
2. Can you identify the types of flowers in your neighborhood?
3. Look at the pictures of the flowers. What do they have in common?
4. What musical background could you use to make learning and memorizing more effective?
5. What is your favorite flower? Why?
6. Collect pictures of flowers and plants living in your area and exhibit them in your school. Support the pictures with adequate information.
7. Observe one of the flowers in the poem in the poem and draw it. Use colors to "brighten it and brighten the mood of the audience".
8. Act out the poem in groups through role playing. Each student plays the role of one flower.
9. Create a table for a study of flowers/plants using the following information:

What I know	What I have learned in school	What I want to know

## Moonlight

Moonlight sweet moonlight

The stars are watching over you

The forlorn is lost in the obscure night

Enlighten the darkness that obstructs his view

Be it genuine or not Moonlight is your true name

The Lord gave it to you to play the role

Rescue the dumb and tow the lame

Greatly rewarded when fulfilling this noble goal

Moonlight sweet Moonlight

The sun is proud of you

She is a rose pretty and bright

For her you are the morning dew



## GLOSSARY

**Watching over:** surveillance

**Forlorn:** lost, lonely, desperate person.

**Dumb:** unable to speak

**Tow:** pull, rescue

**Lame:** handicapped (of a leg)



## Activities

1. Who does Moonlight refer to? Guess then justify your answers.

Discussion

2. What do "the stars" refer to? Guess then justify your answer. Discussion
3. What musical background could you use to make learning / memorizing more effective?
4. Look at the pictures of the moon and the stars. What do they have in common? How do they differ?
5. The moon is sad because Earth is in danger. Imagine an interview with the moon to explain why our planet is in danger. Describe changes in the global environment
6. Stars and the moon did help our grandfathers to solve many problems. What were these problems?

12-Create a table for a study of stars/planets using the following information:

What I know	What I have learned in school	What I want to know

## The Donkey and the Magic Pebble

Once upon a time on the golden beach  
A donkey found a magic pebble  
Thanks to it everything was within his reach  
Defying the mighty, the strong and the capable  
He made his family, relatives very rich  
What used to be wanted became undesirable



One day the donkey in the forest was walking  
Of every earthly creature he did mock  
Suddenly some lions from behind trees appearing  
The donkey stood still, his brain got lock  
He forgot what to do when he heard the lions roaring  
Unconsciously he asked the pebble to turn him into a rock

Unfortunately when the lions left away  
The donkey remained motionless  
He could nothing to the pebble ask or say  
He missed the pebble's power that was endless  
Because of his stupidity he had to dearly pay:  
Remained a rock, because of absentmindedness

This is to say my dearest student  
Business is never always success  
A misuse occurring deliberately or by accident  
Will turn into curse every bless  
Engage your whole brain and be prudent  
True power is strength but above all brightness.

## GLOSSARY

**Mock:** ridicule, scorn, laugh at

**Lock:** unable to function

**Absentmindedness:** inattentiveness, lack of concentration

## Activities

1. In real life, humans can have something like a magic pebble. If well used they lead a happy life. When misused it causes their ruin. What could it be?
2. Sometimes a blessing turns into a curse. In your opinion, why? Discuss and give real life examples.
3. "True power is strength but above all brightness". Discuss.
4. What type of intelligence should the donkey have engaged to defeat the roaring lions?
5. If you were in the place of the donkey, how would you behave?
6. "Those who cannot remember the past are condemned to repeat it" says the quote. Find real life examples where history repeated itself.
7. Create cause and effect sentences of all the events in this poem.
8. Draw pictures of the different stages of the story.
9. Find out and analyze the moral of the story.
10. List how things learned in this poem can help in your future life.
11. Transform the poem into a narrative.
12. Explain the story using only movement (gestures) and realia (pictures or objects)
13. A quote says: "Think Good, Good follows; Think Bad, Bad follows". How can you relate this quote to the poem?

## The Prophet

Brought up unlettered, illiterate and ignorant

Suddenly a savant, a great leader you grew

You heard the unheard, decoded the language of the ant

Auditory intelligence none can share with you

21<sup>st</sup> century science confirmed what thought to be cant

With empirical studies, far from "to my mind or point of view"

You healed the blind with the word and the plant

Your sermons; blessings and guidance they bestrew

You turned the rod into a fearful serpent,

You defied Pharaoh's sorcerers with a genuine counterview

From evil character you were always distant

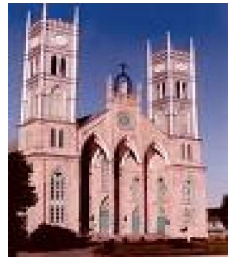
You saved the Christian, the Muslim and the Jew

Your book challenged the most fluent and eloquent

You taught him the science of life, a science totally new

Teacher, Man is killing the father, the mother, the uncle and the aunt

Come back to Earth, save us, the lesson's forgotten, we need urgent review



## GLOSSARY

**Unlettered:** unable to read

**Illiterate:** ignorant, uneducated

**Cant:** false, wrong, nonsense

**Empirical:** experimental, scientific

**Sermons:** talk on moral subjects like the one done in the mosque, church or synagogue

**Savant:** person of great learning

**Bestrew:** diffuse, gave

## Activities

1. How many prophets does the poem speak about?
2. What is the name of the prophet who though illiterate, could recite a sacred book fluently? What is his religion?
3. What is the name of the prophet who could hear and decode the language of ants? What type of intelligence(s) did he possess?
4. What is the name of the prophet who was able to heal the blind?
5. Cite some of the sayings of prophets which were believed to be nonsense but are today proved to be scientifically true.
6. What is the name of the prophet who turned a rod into a serpent?
7. Who saved the Christian, the Muslim and the Jew? (Name the prophets of these religions).
8. Though these religions come from one same source-God- some people interpret them differently and use them as an excuse to cause harm to humanity. Why?
9. What do these religions along with yours, have in common?
10. What does the word "Teacher" in the poem refer to?
11. What do you know about other religions?
12. Sort out any quality in your religion you believe it is an intelligence.

13. What does your religion say about animals and plants? How about other religions? Do some research.

14. In your opinion, how should we use religions to make our planet a better place to live in?

14. Create a table for a study of religions all over the world using the following information:

What I knew about religions	What I have learned in school	What I want to know

## Activities with the corresponding intelligence(s):

- 1-What do these animals have in common? How do they differ? Naturalist
- 2- Act out the poem, in groups, through role playing - kinesthetic.
- 3- Try to imitate the sound of the animals cited in the poem. Fun activity
- 4-suppose you have the ability to understand the language of birds. Imagine an interview you have had with one bird. Verbal linguistic
- 5-Observe one of the animals in the poem and draw it. Use colors to brighten it /brighten the mood of the audience. Visual/ spatial
- 6-sort and categorize information about the different animals. Naturalist
- 7- As part of a homework assignment, set students to select music that best goes with the reading of the poem. Musical intelligence
- 8- What musical background could you use to make learning / memorizing more effective? (Musical)
- 9-Set students to ask "What if questions" to let them express themselves creatively.  
Examples: What if animals and humans could feel each other's feelings?  
What if animals could feel each other's feeling? Interpersonal
- 14- X has problem. Give him advice interpersonal
- 15- Look at the pictures of the flowers. What do they have in common? Naturalistic intelligence
- 16- Tell us the whole story using your own words. Verbal – Linguistic
- 17- Use the poem as lyrics of a song. Make music that fits the lyrics - sing the song. (In pairs or group) – Musical

## MI POETRY CONCLUSION

Since this booklet is a collection of poems, why not presenting the conclusion in the form of a poem? It seems strange, but remember, intelligences advise us to be innovative.

Innate, unchangeable, not trainable; a view so unrealistic  
Described Intelligence which was said to be one, no more  
Howard Gardner came with MI theory, a view so pluralistic  
Changeability, trainability and variety constitute its main core

My first is sensitivity to spoken and written language, which is **Linguistic**  
It is the effective use of language which convinces encore and encore

My second is solving problems with math rules, which is **Logic-Mathematic**  
It is effective use of numbers to calculate and unlock the treasure door

My third is saying things with gestures and your body, which is **kinesthetic**  
Like dances of smart bees, which mean and satisfy whatever they look for

My fourth is understanding others and cooperating, a task so humanistic  
It is **Interpersonal**, which enables Man to achieve successfully any chore

My fifth is mastering one's inner conflicts, mastering the most problematic  
It is **Intrapersonal**, which helps you understand the self and win the internal war

My sixth is knowing fauna and flora through discrimination, which is **Naturalistic**  
Loving nature and protecting it, is our health and survival, it is our genuine drugstore

My seventh is sweet melodies and songs, it is **Musical**, true healing music  
It is appreciating rhythm and pitch, especially when supported with a bandore



My eighth is colors and shapes, concrete beauty and whatever aesthetic  
It is **Visual-Spatial**, perceiving nature elements; every human should adore

These are few intelligences, your deeds are bound to be beatific and angelic  
If you can add some intelligences, we are at the beginning, a lot we do ignore.

## General Conclusion

Fables can serve as an excellent material in English language teaching as long as the teacher knows how to make the utmost of them. If the teacher adapts the multiple intelligences theory presented in this work to teach the poems in Secondary-school textbooks, pupils will be stimulated not only to take an interest in English learning but also to love literature. Educators should not neglect the benefits and lessons fables offer. They not only teach English but make our pupils lifelong readers after leaving school which is our responsibility and ultimate goal.



"LEARN FROM YESTERDAY  
LIVE FOR TODAY  
HOPE FOR Tomorrow "

ALBERT EINSTEIN

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### **Résumé**

La recherche sur les intelligences multiples révèle que les individus varient beaucoup dans la façon dont ils apprennent une langue étrangère. Chaque individu possède une intelligence prédominante qui lui facilite les apprentissages et les transferts de connaissance. Selon Howard Gardner, la théorie des intelligences multiples comporte neuf intelligences : linguistique, logico-mathématique, musicale, spatiale, kinesthésique, naturaliste, interpersonnelle, intrapersonnelle et existentialiste.

Le but premier de cette étude est d'identifier les intelligences multiples des élèves de deuxième année secondaire fréquentant le lycée de Malika Gaid – Sétif, et vérifier la relation entre l'intelligence verbale et les résultats de ces élèves aux compositions d'Anglais. L'étude explore aussi les différentes techniques que le professeur met en application dans le but d'assurer une adaptation adéquate de ces intelligences et produire des changements positifs dans la manière d'apprendre l'Anglais. Le deuxième but est d'évaluer l'efficacité des techniques d'enseignement de la poésie en utilisant la théorie des intelligences multiples. L'instrument utilisé pour l'étude était le "McKenzie Multiple Intelligences Inventory". La population cible comporte 97 élèves : 74 filles et 23 garçons. Leurs âges varient entre 16 et 23 ans. En ce qui concerne le deuxième but, deux questionnaires ont été utilisés. L'un pour les élèves et l'autre pour leur enseignant. Les deux questionnaires visent l'évaluation du contenu des leçons présentées, la compréhension par les élèves de ce contenu, et la méthode de travail de l'enseignant.