

## The inclusion of Multiple Intelligences Theory in The Algerian EFL Textbook: a content analysis of 2nd year Secondary School Textbook “Getting Through”

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### Abstract:

The present study aims at investigating the inclusion of Multiple Intelligences (MI) Theory in 2nd year secondary school Algerian EFL Textbook “Getting Through”. It also aims to identify the intelligences profile of the textbook under study. Furthermore, this study examines the balance in occurrence frequency of the different intelligences. The findings of the study revealed that the occurrence frequency of intelligences showed a heavy reliance on verbal/linguistic intelligence. It is concluded that the MI theory was not considered when designing the current textbook. Without supplementing the textbook with extra materials, EFL teachers will, consequently, be neglecting the majority of learners’ differences and types.

**Keywords:** Multiple Intelligences Theory, EFL textbook, Content Analysis, Ministry of National Education, Language Teaching.

### Introduction :

The issue of intelligence has been a debatable topic for a long period of time. Gardner defined intelligence as “the ability to solve problems or to create products of value within one or more cultural settings”<sup>1</sup>. The latter definition opposed the traditional psychological view of intelligence that considers intelligence as one ability that is directly related to logical and mathematical thought. Accordingly, Gardner proposed that any human being possesses seven different types of intelligences, namely: linguistic, logical, mathematical, spatial, musical, bodily kinesthetic, interpersonal, and intrapersonal intelligences. Later in 1997, he added the naturalistic intelligence.

The MI theory, since then, was widely accepted and adopted by educators because they considered it as a useful tool to meet their learners’ needs. Relatively, the field of EFL was also considered a fertile field to apply the principles of this theory. Many researchers investigated the use of MI theory in EFL classes. When talking about language teaching, we should mention textbooks as one of the main components affecting the success the teaching/learning process.

It is a fact saying that the teaching/learning process witnessed a tremendous shift from a teacher-centered approach to a learner-centered approach. This kind of improvement should, by result, be felt in the textbooks designed. In a learner-centered education, learners’ needs and learning styles and strategies are always the corner stone upon which we build the educational program and the textbook as well. It is believed that the principles of MI theory go in harmony with the principles of learner-centered educational approach.<sup>2</sup>

The Algerian Ministry of National Education (MNE), along the process of improving educational programs, has charged experts for the design of new EFL textbooks. The recently designed EFL textbook, as claimed by its writers, are supposed to serve the

learner's needs, potentials, styles, and intelligences.<sup>3</sup> The present study is an attempt to investigate the implications of MI theory in the 2nd year secondary school EFL textbook.

## **2- Literature Review**

### **2-1 Multiple Intelligences (MI) Theory**

The notion of intelligence can be traced back to the French psychologist, Alfred Binet, who was the first designed an Intelligence Quotient (IQ) test with Theodore Simon. Yet, Binet's view of intelligence has been severely criticized in its being purely psychometric and focusing mainly only on linguistic and mathematical intelligence. In his book *Frames of Mind*, Gardner criticized the unique perception of intelligence by claiming that this fact means either Binet and his colleague were right about their theory, or their successors did not deeply tackle the issue. The book called for new vision of human intelligence and criticized the unique view of intelligence that is restricted only to the Intelligence Quotient (IQ) test scores. The idea behind Gardner's book is that the human mind possesses more than one type of intelligence. Multiple Intelligences (MI) theory, introduced by Howard Gardner, symbolizes the multi-faceted view of human intelligence. Gardner believed that cognitive competence comprises having more than one dimension, including talents, abilities, mental skills. Thus, he challenged the myopic perspective on intelligence, and he suggested eight intelligences, which are: logical-mathematical, linguistic, spatial, interpersonal, intrapersonal, musical, and bodily-kinesthetic intelligences. The naturalistic has been added later in 1997; he has thought of adding a ninth intelligence which is the existential intelligence. The eight intelligences can be described as follows:

#### **2-1-1 Verbal/Linguistic Intelligence (VL):**

It comprises the ability to fulfill certain objectives with language; it is also sensitivity to spoken and written language. Those who learn languages easily are believed to be verbally/linguistically intelligent<sup>4</sup>. Linguistically gifted people enjoy making puns, analogies, tongue twisters, and jokes. More than that, they always try new forms and structures. It is worth mentioning that VL intelligence is highly affected by environmental factors, though intelligence is a product of nature. In other words, VL intelligence is one of the late developing intelligences because it is a result of a real life experiences. Writers, poets, public speakers, interpreters, lawyers demonstrate a high level of VL intelligence.

#### **2-1-2 Logical/Mathematical Intelligence (LM):**

It involves the ability to use numbers effectively, to analyze problems, and to investigate issues scientifically<sup>5</sup>. Those who possess a high LM intelligence are more tended to use deduction and linear sequential reasoning. In addition to that, they are quick problem solvers<sup>6</sup>. VL and LM intelligences enjoyed much more care and attention in academic settings, precisely conventional schools<sup>7</sup>. However, Gardner questioned this issue by stating that those dominating test intelligences would not be the same if the test developers were politicians, business people, or even architectures.

Those gifted at LM intelligence would be mathematicians, accountants, statisticians, physicists, philosophers, chemists, engineers, computer programmers, etc. Albert Einstein, Isaac Newton, and Bill Gates are believed to possess high LM intelligence.

#### **2-1-3 Musical Intelligence (M):**

It is defined M intelligence as “ the ability to identify sound patterns, create, communicate, and understand meanings made out of sound”. It also involves auditory imagery and therefore entails skill in the performance, composition, and appreciation of musical patterns. This kind of intelligence includes also the sensitivity to the rhythm, pitch, melody, timbre or tone color of a musical piece<sup>8</sup>.

Neuropsychologists affirmed that musical perceptions and productions are associated with the right hemisphere of the brain<sup>9</sup>. Relatively, Gardner expressed his wonder about the underestimation of this intelligence by saying that it is neither scientific nor logical to segregate between two structurally parallel intelligences (M and VL)<sup>10</sup>.

Band directors, disc jockeys, musicians, composers, and singers are generally believed to be gifted at M intelligence. Among those possess a high M intelligence we can mention: Van Beethoven, Wolfgang Amadeus Mozart, Yanni, etc.

#### **2-1-4 Bodily Kinesthetic Intelligence (BK):**

It is the person's capacity to use his body or parts of his body in order to express ideas, to solve a problem<sup>16</sup>. As responsible for the control of bodily movement, the motor cortex is situated in the right hemisphere for left-handed people, while it is located in the left hemisphere for right-handed people<sup>11</sup>.

Actors, figure skaters, dancers, athletes, surgeons, mechanics, sculptors, craftspersons are ideal examples of BK intelligence. As for names, we can mention: Diego Armando Maradona, Charlie Caplin, Michael Angelo, Robert Deniero, Othmane Ariouat, Martha Graham, etc.

#### **2-1-5 Visual/Spatial Intelligence (VS):**

Armstrong defined it as the ability to perceive the visual-spatial world accurately<sup>12</sup>. This intelligence comprises sensitivity to shape, form, space, color, line, and the relationship that exists between those elements. Spatially intelligent people often see things that other people miss and apply their VS capacities to arts such as sculpture, invention, architecture, painting, interior design, and photography<sup>13</sup>. McKay asserted that VS processing occurs in the posterior region of the right cerebral cortex in the human brain<sup>14</sup>.

Leonardo De Vinci, Pablo Picasso, Temple Grandin, and Frieda Kahlo are examples of persons who show outstanding VS intelligence.

#### **2-1-6 Interpersonal Intelligence (IR):**

It is the ability to perceive and make distinctions in the moods, intentions, motivations, and feelings of other people. It means consequently knowing how to work effectively with others<sup>15</sup>. Thanks to IR intelligence we understand elements like facial expressions, gestures, and other body language cues<sup>16</sup>. Research asserted that the frontal lobe is the area of the brain involved with IR intelligence.

People who demonstrate high IR intelligence should be counselors, religious leaders, political leaders, educators, business people, and actors. We can mention, as examples, Mrtin Luther King, Dr. Philip, Oprah Winfrey, Less Brown, Steve Harvey, Ibrahim Elfiky, etc.

#### **2-1-7 Intrapersonal Intelligence (IA):**

Gardner said that "it involves the capacity to understand oneself, to have an effective working model of oneself – including one's own desires, fears, and capacities – and to use such information effectively regulating one's own life"<sup>17</sup>. It was stated that to have a strong IA intelligence means to successfully control one's own emotions, construct self-concept and to understand how he fits in relation to other people<sup>18</sup>. McKay asserted that the frontal lobe of the human brain is associated with IA intelligence<sup>19</sup>.

Spiritual leaders, psychologists, psychotherapists, teachers, and political leaders are believed to possess high IA intelligence. Mahathir Bin Mohammed, Mahatma Ghandi, Confucius, should show an end-state IA intelligence.

#### **2-1-8 Naturalistic Intelligence (N):**

It includes the ability to recognize and classify the several species –flora and fauna– within a person's environment. It involves also the one's capacity to situate himself in the natural environment<sup>20</sup>. More than that, N intelligence comprises sensitivity to natural phenomena like cloud mountains, cloud formations. For those living in urban cities, it involves the ability to differentiate between inanimate objects like cars, phones, sneakers, etc.

Biologists, agriculturers, ornithologists, should be naturalistically intelligent. Among naturalistically intelligent persons we can mention: Jane Goodall, John James Audobon, and E.O. Wilson.

### **2-2 MI Theory and Language Teaching/Learning**

Relevance of MI theory to language learning/teaching has been recognized by more language educators recently since its conceptualization first by Gardner. Supportively, English educators have been continuously interested in dialoguing the implications of MI theory in English language teaching. Accordingly, he added that different intelligences can be used as hooks for language acquisition. Along the same vein, it was asserted that language teaching/learning does not go in only one model for all learners, rather it is a mixture of different combined factors play in the language learning process. Consequently it is up to language teachers to provide learners with different ways to conceive the content being explained. English language teachers should be aware of the less apparent constituents influencing students' understanding in order to respond to all their needs.

EFL teachers should, before applying MI principles in their classes, be aware of their students' learning styles, strengths, and learning potentials. We can also do so through giving students a MI test in order to have a clue about their students' intelligences profile. Then the teacher can create a learning environment that is suitable for each student. As a follow up process, the EFL teacher is all the time observing students' interactions with different activities. As long as teachers use a range of different activities, students will surely find the favorite activities that serve their highly developed intelligences. Supportively, creating different language tasks and activities cater for the needs of multiple intelligences and the needs of language learners. More than that, raising students' awareness of their strengths and weaknesses makes students more responsive to different types of activities which may be considered unfamiliar to students' cultural background or experience<sup>21</sup>.

### **2-3 MI Theory and EFL Textbook implications**

Curriculum theory is founded upon a set body of knowledge students are expected to learn and a school system that designs and structures curriculum towards that end<sup>22</sup>. The theory is based on unified set of curriculum standards and assessments that are prescribed by the state. Though, traditional approach has been severely criticized in its being neglecting diversity of students (e.g., individual differences, learning strategies, preferences, etc.)

As for the implications of MI theory in EFL textbooks, Berman was the first to apply MI theory to ELT in his book "A Multiple Intelligences Road to an ELT Classroom"<sup>23</sup>. The shortage in the empirical studies about the implications of MI theory in EFL textbooks is due to the recent integration of the theory into education<sup>24</sup>. On another hand, the relationship between curriculum and instruction is dynamic and constant, and that it revolves around assessment based on student demographics, societal needs, and technological needs<sup>25</sup>.

Armstrong suggested seven procedures to make MI-based lesson plans or curriculum units, namely: 1. Focus on specific objective or topic 2. Ask key MI questions 3. Consider the possibilities 4. Brainstorm 5. Select appropriate activities 6. Set up a sequential plan 7. Implement the plan<sup>26</sup>. Along the same vein, Lazear suggested a mental sequence as a type of a MI-based syllabus design: 1. Awaken the intelligence through multisensory experiences 2. Amplify intelligence: volunteering objects and events of their own choice 3. Teach with/for intelligence 4. Transfer intelligence: reflect on the learning experiences to out-of class world. As follows some of the experimental studies on the implementation of MI in EFL textbooks:

Snider investigated ten first-year German EFL textbooks in order to find out the intelligences the activities engaged. The results showed that eleven activities out of forty-one types of activities engaged intelligences other than verbal/linguistic. As recommendations, Snider proposed to modify the activities so that they engage larger types of intelligences in learners. He added an explanation of how each activity appeared in the textbook and suggested three options to enhance other intelligences.

Al-Omari, Bataineh, and Smadi examined the possible inclusion of the principles of MI theory in Jordanian Action Pack textbook for the first-, fourth-, eight- and eleventh- grades by doing a content analysis. Results showed that verbal/linguistic, intrapersonal and spatial/visual intelligences were well incorporated. Contrastively, moral, existential and spiritual intelligences were not incorporated at all in the activities of the textbooks. More than that, results revealed an unbalance incorporation of intelligences among the four levels of the textbooks<sup>27</sup>.

Boulmaiz investigated the implications of MI theory in Algerian EFL classroom. The instruments of the study included content analysis of 1st year secondary school EFL textbook "At the Crossroads"; in addition to a questionnaire delivered to EFL teachers in order to grasp their perceptions about the application of this theory. The results of the study revealed an over focus on only two intelligences: Verbal/Linguistic and Logical/Mathematical intelligences. Furthermore, Algerian EFL teachers showed lack of acquaintance with the MI theory. Thus, the researcher recommended that teachers should go through more training on the application of MI theory in order to satisfy their students' needs<sup>28</sup>.

### **3- Purpose, significance, questions and limitations of the study:**

#### **3-1 Purposes of the study**

The present study targets the three following objectives: 1. Identify the multiple intelligences addressed in the activities of the 2nd year secondary school EFL textbook "Getting Through" 2. Assess the frequency of occurrence for each of these intelligences in 2nd year secondary school EFL textbook "Getting Through" 3. Judge the extent to which the occurrence frequency for the different intelligences is balanced. This study attempts also to set a preliminary assessment of the Ministry of Education commitment to innovative pedagogical practices.

#### **3-2 Significance of the study**

The present content analysis of 2nd year secondary school EFL textbook "Getting Through" is intended to provide useful perspectives for textbook designers, stakeholders, EFL teachers, in order to be aware of the importance of MI theory at engaging EFL learners in the learning process. This study will also provide several pedagogical implications for EFL teachers. This study is considered a humble contribution to the huge amount of literature written in this sphere. The present study is considered the second one that content-analyzed MI theory in Algerian EFL textbooks.

#### **3-3 Questions of the study**

The current study attempts to answer the following main question: to what extent does 2nd year secondary school EFL textbook "Getting Through" incorporate MI theory in its content? Related to the main question, three sub questions are to be answered, namely: 1. what is the occurrence frequency of MI intelligences in 2nd year secondary school EFL textbook "Getting Through" activities? 2. Is there a balance in occurrence frequency of MI activities?

#### **3-4 Limitations of the Study**

The findings of the present study are restricted to the following points:

- The findings of this study are restricted to 2nd year secondary school EFL textbook "Getting Through".
- The study is restricted only to eight intelligences, namely: verbal/linguistic, visual/spatial, logical/mathematical, interpersonal, intrapersonal, musical, bodily kinesthetic, natural intelligences.

### **4- Design and Research Methodology**

The current research uses content analysis to investigate the implication of Gardner's MI theory in 2nd year secondary school EFL textbook "Getting Through". All the activities were carefully analyzed in order to identify the inclusion of each of the eight

intelligences. The researcher conducted the analysis along the criteria of incorporation, distribution, and balance of these various intelligences in these activities. Each activity was analyzed as a unit, then it was categorized upon the type(s) of intelligence it engages.

To serve the purposes of the study, the researcher adapted a categorized list of activities and instructions that are divided to serve all Gardner's eight intelligences. The researcher used this list as a tool to analyze the textbook under study, (see Appendix 01). In order to establish the validity of the instrument, the researcher has given the list of activities to EFL experts in order to add their remarks and suggestions. As planned, the researcher added the suggested remarks and came up with the final format list.

### 5- Results and Discussion

In order to answer the main research question, the researcher analyzed the content of 2nd year secondary school EFL textbook "Getting Through" in light of MI theory principles. The following table summarizes the number and occurrence frequency of each intelligence in the textbook. The percentages show the frequency of a given intelligence in every single unit of the book. Labels have been used to refer to the intelligence in the following way: (VL for verbal/linguistic, LM for logical mathematical, VS for visual/spatial, IR for interpersonal, IA for intrapersonal, N for natural, and M for musical intelligence).

	VL	LM	VS	IR	IA	M	BK	N	Total
Unit 01	26 (59.13%)	02 (4.54%)	03 (6.81%)	06 (13.63%)	03 (6.81%)	00 (00%)	03 (6.81%)	01 (2.27%)	44 (13.29%)
Unit 02	27 (61.36%)	02 (4.54%)	04 (9.09%)	06 (13.63%)	02 (4.54%)	00 (00%)	02 (4.54%)	01 (2.27%)	44 (13.29%)
Unit 03	24 (53.33%)	01 (2.22%)	03 (6.66%)	04 (8.88%)	03 (6.66%)	00 (00%)	01 (2.22%)	09 (09%)	45 (13.59%)
Unit 04	27 (60%)	05 (11.11%)	02 (4.44%)	06 (13.33%)	03 (6.66%)	00 (00%)	01 (2.22%)	01 (2.22%)	45 (13.59%)
Unit 05	28 (71.79%)	01 (2.56%)	02 (5.12%)	04 (10.25%)	01 (2.56%)	00 (00%)	01 (2.56%)	05 (5.12%)	39 (11.78%)
Unit 06	21 (65.62%)	03 (9.37%)	00 (00%)	04 (12.5%)	01 (3.12%)	00 (00%)	01 (3.12%)	02 (6.25%)	32 (9.66%)
Unit 07	34 (73.91%)	03 (6.52%)	03 (6.52%)	03 (6.52%)	00 (00%)	00 (00%)	02 (4.34%)	01 (2.17%)	46 (13.89%)
Unit 08	27 (75%)	01 (2.77%)	02 (5.55%)	03 (8.33%)	00 (00%)	00 (00%)	02 (5.55%)	01 (2.77%)	36 (10.87%)
Total	214 (64.65%)	18 (5.43%)	19 (5.74%)	36 (10.87%)	13 (3.92%)	00 (00%)	13 (3.92%)	18 (5.43%)	331 (100%)

**Table (01): Number and occurrence frequency of each intelligence in "Getting Through"**

The analysis of the textbook revealed the following: the textbook included 331 activities, 8 units with a specific topic for each. As for the intelligences appearance, only seven intelligences were engaged in all the units of the textbook; the musical intelligence was totally marginalized and none of the textbook activities aimed at enhancing this type of intelligence. Concerning the intelligence profile of "Getting Through", the dominating intelligence, as expected, was the verbal/linguistic intelligence. The occurrence frequency of the verbal/linguistic intelligence was 64.65% in the textbook activities. The interpersonal intelligence ranked 2 with 10.87% of occurrence frequency. 5.74% of the activities engaged the visual/spatial intelligence, and 5.43% for both logical/mathematical and natural intelligences. The intrapersonal and bodily kinesthetic intelligences appeared in 3.92% of the textbook activities. The musical intelligence, as previously stated, marked 0 appearance in all the activities.

It is worth noting, when analyzing the content of the textbook, that some instructions of activities engage more than one intelligence; for example: p.26, activity1 engages the interpersonal and the verbal/linguistic intelligences; p.44, activity1 engages the interpersonal, visual/spatial, and the verbal/linguistic intelligence, etc.

Though the textbook writers' awareness of the importance of considering learners' differences, the intelligences engaged in activities are not presented in a balanced way. As an example, the occurrence frequency of VL intelligence in the first unit was 59.13%, however the LM occurrence frequency reached only 4.54%. It was expected that these two intelligences should be close in terms of occurrence frequency, yet the findings revealed the opposite.

The map of the textbook seems to serve most of the intelligences, yet the variety of activities does not. The content was divided into themes (8 themes for 8 units). At the end of the unit, the student is expected to realize a project by relying on the knowledge accumulated through the whole unit. It can be concluded that the appearance of intelligences in the textbook activities is incidental and hold no logical basics. Relatively, it can be also stated that textbook writers' knowledge of the MI theory is either limited, or they could not arrive to a successful harmonious implementation of the theory in the textbook content. This can be due to the time constraints, or to avoid overloading the textbook content.

The over focus on verbal/linguistics intelligence is a normal factor since we are analyzing a language course book. Yet, this remark may also be due to the following reasons: 1- The inclusion of verbal/linguistic intelligence in the textbook requires less time and cost, and they are easily integrated within the textbook content 2- The relation between the test and the textbook gets the textbook writer obliged to produce a test driven material. As stated by Farhady: "educational materials in the test driven curricula incorporate the parameters that would enhance psychometric characteristics of measurement devices"<sup>29</sup>. By result, materials directed toward the content of the test are serves the test objectives rather than learning outcomes. It can be concluded that that "Getting Through" prepares EFL learners for standardized tests.

Concerning the illustration images appearing in most of the textbook units are expected to serve the visual/spatial intelligence, and to help the learner understand the topic under study. Though, we – sometimes- notice the inconvenience of images with students' background knowledge, or the page being overcharged with more than two illustration images. For example: p. 99 and 138 contain more than four images in the same page. Here comes the question, are the images chosen by the textbook writers or the layout designers? How could they judge that a given image is suitable for this level?. It is worth admitting that the textbook writers showed a good awareness of the importance of images. They just need to be refined according to the general shape of the textbook.

The number of activities catering the interpersonal intelligence reflects to a great extent the textbook writers' claim that "Getting Through" is expected to encourage learners to communicate and interact orally with others.

### **Conclusion:**

As a concluding remark, it can be said that a MI-based EFL textbook is expected to raise teachers' and learners' motivation, and to improve students' progress at language learning. The present study aimed at investigating the inclusion of MI theory in 2nd year secondary school EFL textbook "Getting Through".

The findings of the study revealed that the occurrence frequency of intelligences showed a heavy reliance on verbal/linguistic intelligence. It is concluded that the MI theory was not considered when designing the current textbook. Without supplementing the textbook with extra materials, EFL teachers will, consequently, be neglecting the majority of learners' differences and types.

### **Footnotes:**

- <sup>1</sup> Gardner, Howard, 1983, *Frames of Mind: The Theory of Multiple Intelligences*, Basic Books, USA, P. 81.
- <sup>2</sup> Al-Omari, Taghrid and Bataineh, Ruba and Smadi, Oklah, 2015, *Potential Inclusion of Multiple Intelligences in Jordanian EFL Textbooks: A Content Analysis*, *Bellaterra Journal of Teaching & Learning Language & Literature*, Jordan, 8(1), p.62, 60-80
- <sup>3</sup> Bouteldja, Riche, 2005, *Getting Through: Secondary Education Year Two*, The National Authority for School Publications (O.N.P.S), Algeria, p.3.
- <sup>4</sup> Mc, Kay, 2008, *Multiple Intelligences*, *Encyclopedia of Educational Psychology*, USA, vol(2), p.713, 712-717.
- <sup>5</sup> Armstrong, Thomas, 2009, *Multiple Intelligences In The Classroom 3<sup>rd</sup> Edition*, ASCD, USA, p.7.
- <sup>6</sup> Mc, Kay, 2008, *Multiple Intelligences*, *Encyclopedia of Educational Psychology*, USA, vol(2), p.712, 712-717.
- <sup>7</sup> Boulmaiz, Djallel, 2017, *The Place Of The Multiple Intelligences Theory In The Algerian EFL Textbook : An Evaluation Of 1st Year Secondary School Textbook "At The Crossroads."* *مجلة العلوم الإنسانية*, Algeria, 1(8), p.20, 18-29.
- <sup>8</sup> Armstrong, Thomas, 2009, *Multiple Intelligences In The Classroom 3<sup>rd</sup> Edition*, ASCD, USA, p.7.
- <sup>9</sup> Mc, Kay, 2008, *Multiple Intelligences*, *Encyclopedia of Educational Psychology*, USA, vol(2), p.712, 712-717.
- <sup>10</sup> Gardner, Howard, 1999, *Intelligence reframed: Multiple intelligences for the 21st century*, Basic Books, USA, p.42.
- <sup>11</sup> Mc, Kay, 2008, *Multiple Intelligences*, *Encyclopedia of Educational Psychology*, USA, vol(2), p.713, 712-717.
- <sup>13</sup> Boulmaiz, Djallel, 2017, *The Place Of The Multiple Intelligences Theory In The Algerian EFL Textbook : An Evaluation Of 1st Year Secondary School Textbook "At The Crossroads."* *مجلة العلوم الإنسانية*, Algeria, 1(8), p.22, 18-29.
- <sup>14</sup> Mc, Kay, 2008, *Multiple Intelligences*, *Encyclopedia of Educational Psychology*, USA, vol(2), p.714, 712-717.
- <sup>15</sup> Armstrong, Thomas, 2009, *Multiple Intelligences In The Classroom 3<sup>rd</sup> Edition*, ASCD, USA, p.7.
- <sup>16</sup> Boulmaiz, Djallel, 2017, *The Place Of The Multiple Intelligences Theory In The Algerian EFL Textbook : An Evaluation Of 1st Year Secondary School Textbook "At The Crossroads."* *مجلة العلوم الإنسانية*, Algeria, 1(8), p.22, 18-29.
- <sup>17</sup> Gardner, Howard, 1999, *Intelligence reframed: Multiple intelligences for the 21st century*, Basic Books, USA, p.43.
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- <sup>20</sup> Armstrong, Thomas, 2009, *Multiple Intelligences In The Classroom 3<sup>rd</sup> Edition*, ASCD, USA, p.7.
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- <sup>22</sup> Dastgoshadeh, Adel and Jalilzadeh, Kaveh, 2011, *Multiple Intelligences-based Curriculum for the Third Millennium*. International Conference on Education: Research and Innovation, Singapore, p.58.
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- <sup>25</sup> Fogarty, Robin and Bellanca James, 1995, *Multiple Intelligences*, Corwin, USA, p.156.
- <sup>26</sup> Armstrong, Thomas, 2009, *Multiple Intelligences In The Classroom 3<sup>rd</sup> Edition*, ASCD, USA, p.35.



<sup>27</sup> Al-Omari, Taghrid and Bataineh, Ruba and Smadi, Oklah, 2015, Potential Inclusion of Multiple Intelligences in Jordanian EFL Textbooks: A Content Analysis, *Bellaterra Journal of Teaching & Learning Language & Literature*, Jordan, 8(1), p.63, 60-80.

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<sup>29</sup> Farhady, Hossein, 2002, Classroom Assessment: a Plea for Change, Iran, p.2: retrieved from: [https://www.academia.edu/21204034/Classroom\\_Assessment\\_A\\_Plea\\_for\\_Change](https://www.academia.edu/21204034/Classroom_Assessment_A_Plea_for_Change), (consulted on 10/03/2021 at 09:18)

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### **Appendices:**

**Appendix A:** List of Activities serving multiple intelligences

#### **Verbal/linguistic activities:**

- Sustained silent reading
- Reading books, newspaper or parts of a play
- Telling jokes and riddles
- Writing letters, diaries, stories, poetry, instructions, lists, book reviews
- Retelling stories, identifying with characters, extracting information from text
- Enriching vocabulary through word games and puzzles
- Brainstorming, debates, discussion, giving speeches
- Memorizing, journal keeping, note taking
- Summaries, translation exercises.

#### **Visual/spatial activities:**

- Using pictures to create, interpret, and illustrate stories
- Giving guided visualization
- Drawing maps, diagrams, illustration, graphs, tables, photos
- Making mind maps, using charts and grids
- Designing, drawing, using imagination and fantasy
- Watching videos, slides and movies
- Visual awareness activities

**Logical/mathematical activities:**

- Sequencing events into story line and sequential presentation of subject matter
- Presenting television shows about science, science demonstrations and experiments
- Reading about famous scientists and their discoveries, or detective stories
- Organizing with Venn diagrams, sorting, classification; using symbols
- Logical-mathematical games like Clue
- Following directions to accomplish a goal, hypothesizing, predicting, and experimenting
- Problem-solving language activities using logic, reasoning puzzles and logical argumentation
- Analyzing grammar, pattern identification, code making, code breaking

**Bodily/kinesthetic activities:**

- Incorporating movement into the lessons
- Mimes, dramas and role-plays
- Creative movement, body language
- Kinds of physical education and dance, classroom aerobics
- Human sculptures, graphs and tableaux
- Hands-on activities, construction and manipulative activities
- Cooperative group rotation

**Musical Intelligence activities:**

- Background music to relax and enhance learning
- Turning some parts of lessons into a song or rhythmic chant
- Using raps, jazz and chants to memory lesson
- Playing recorded or live music
- Making music instruments
- Choral reading, singing and speaking
- Creating and forming songs or tunes
- Encouraging awareness of surrounded sounds

**Interpersonal intelligence activities:**

- Group brainstorming, and group problem solving
- Project work
- Pair work, group discussion
- Peer teaching and peer editing
- Intercultural awareness activities
- Circle time and self-esteem activities
- Giving and receiving feedback and constructive criticism

**Intrapersonal intelligence activities:**

- Activities with a self-evaluation component
- Personal journal keeping
- Individualized projects
- Reflective learning activities
- Writing about personal goals and hopes for the future
- Goal setting
- Recording thoughts, feelings and moods
- Self evaluation

- Circle time and self esteem activities

**Naturalistic intelligence activities:**

- Showing slides, films that features nature
- Organizing activities that involves nature like bird watching
- Growing a plant and describing the developing process
- Discussing animal rights and earth preservation
- Drawing or photographing natural objects
- Talking about pets or natural places to classmates
- Collecting natural things like leaves, flowers to show and describe to others
- Reading books, magazines, newspapers on the nature