

# Identifying the multiple intelligences of Iraqi EFL Instructors at college level

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## Abstract

### The Problem of the Study:

Teachers should have acceptable ratios of multiple intelligences. Knowing their most dominate intelligence, teachers will be capable of understanding and considering the multiple intelligences of their students. Accordingly, they will be able to use Gardner's theory as an effective approach of teaching for all kinds of learners and not limited to a specific type of students especially those who have high ratios of verbal-linguistic and logic-mathematical intelligences.

### Aim of the Study:

This study aims at identifying the multiple intelligences of Iraqi EFL instructors at college level.

### Population and Sample:

The population of the study is represented by all EFL instructors at English language Departments at Colleges of Languages and Arts (University of Baghdad), Basic Education and Arts (Al-Mustansiriyah University) and College of Education at Babylon University including 100 instructors. The researcher had selected 64 male and female instructors as a sample of the present study.

### Instrument:

An objective questionnaire is adopted by the researcher since it is in consistence with the aims of the present study.

### Statistical means:

The following statistical means are used in this study:

1. Weighted mean.
2. Percentages.

### Results:

Research results show disparity in percentages of multiple intelligences between those which are related to the nature of the

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daily work of the sample members (teaching English language) and the other intelligences. Results show an expected high ratio of verbal-linguistics intelligence and low ratio in musical intelligence; whereas other intelligences came between.

**Recommendations:**

1. There is a need to self-reinforce to multiple intelligences among EFL instructors.
2. Adopting the style of diversity in teaching and learning.
3. Teachers are recommended to enhance multiple intelligences of students by using different activities inside the classroom.
4. It is necessary to adopt an activity booklet beside the textbook, enriched with activities and events that promote the use of external environment, collaborative work, music, theater, manual labor in accordance with the scientific materials.

**Section One**  
**Introduction**

**1.1 Problem of the Study**

Teaching through Gardner's theory of multiple intelligences is not newly adopted in the academic institutions of the world, but it is fairly new in Iraq. It could be said that the Iraqi educational academics have not used this approach yet, whether in school, or college level. To apply this theory as an effective approach of teaching, the researcher believes that it has first to identify the teachers' multiple intelligences and to highlight the types of intelligences that instructors have and their impact on the process of teaching inside classroom.

Teachers should have acceptable ratios of multiple intelligences in order to invest more efficiently in the teaching-learning process, and to be aware of the diversity in their classrooms. Notably, in Iraq we have overstuffed classrooms full of students with different multiple intelligences which makes the process of teaching difficult, slow and sophisticated. Definitely when teachers start to absorb students' strengths and weaknesses beyond the linguistic and logical-mathematical intelligences, they will have new insights into how to reach and teach them.

Although all people possess all intelligences at varying levels, it is helpful for teachers to present content material through a variety of intelligences to make the information comprehensible to all students (Herrell and Jordan, 2008:285).

"Intelligent people know others. Enlightened people know themselves" (Lao Tzo).

## **1.2 Value of the Study**

To understand the world around, you must first understand yourself. Identifying how men/woman thoughts and actions fit into the patterns of human behavior offers the advantage of intuitively understanding the most productive ways to communicate with others (Antoun, 2013:25). Hart (2009:134) asserts that by knowing yourself, only then you can know other people and influence and share your experiences with them. Hart (ibid) believes that great leaders, coaches and communicators have a high degree of self-awareness. He affirms that knowing your style is the first thing to know about how you perform and once you understand which your naturally dominant learning style is, you are in a position to improve the way you perform.

Herrell and Jordan (2008:284) illustrate the fact that traditionally, teachers had taught only two intelligences in the school setting (linguistic and logical mathematical), but today at least seven intelligences have been well researched and documented. Using knowledge of multiple intelligences and being flexible in planning instruction and assessment are one way of supporting students to be more successful in the classroom. Using multiple intelligences strategies is especially beneficial to English language learners since allowing them to learn and demonstrate their understanding in the mode in which they are most confident to lower the affective filter and boost their self-esteem and motivation (ibid).

The fact above cannot be applicable unless teachers themselves identify their multiple intelligences, as a first step on the road of using multiple intelligence strategies in classroom. In fact, the teacher who understands his intelligences is better able to understand the multiple intelligences of his students and better to evolve flexible and adjustable learning and teaching and to set effective goals which minimize learning weaknesses and maximize strengths. Drucker (2006:9) asserts "Don't try to change yourself – it is unlikely to be successful. But work hard, to improve the way you perform".

This research is an attempt to identify the multiple intelligences of Iraqi EFL (English as foreign language) teachers at college level .The significance of this study is derived from:

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- 1.2.1 familiarizing EFL college teachers with their multiple intelligences and the percentages of each intelligence.
- 1.2.2 highlighting the intelligence which is needed to be reinforced and strengthened.
- 1.2.3 indicating the relation between the nature of the work and the enhancement of a specific intelligence.
- 1.2.4 indicating the kinds of activities (related to multiple intelligences) that are needed to be used and enhanced by the teacher inside classroom.
- 1.2.5 aiding teachers to develop and improve their intelligences.
- 1.2.6 as far as the researcher knows, there are no previous studies that identify EFL teachers' multiple intelligences locally or internationally.
- 1.2.7 the fact that this research may enrich Iraqi libraries with an empirical research of identifying the multiple intelligences of Iraqi instructors.
- 1.2.8 the fact that this research opens windows to similar studies to identify the multiple intelligences of Iraqi teachers in different specialties and different fields of educations.

### **1.3 Aim of the Study**

This research aims to identify the multiple intelligences of Iraqi EFL Instructors at college level.

### **1.4 Limits of the Study**

This study is limited to:

- 1.4.1 Gardner's multiple intelligences.
- 1.4.2 Iraqi EFL Instructors at the Universities of Baghdad, Al-Mustansiriah, Babylon during the academic year 2013-2014.

### **1.5 Definition of Basic Terms**

**1.5.1 Intelligence:** It 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...Intelligence is not a single mental process, but rather a combination of many mental processes directed toward effective adaptation to the environment (Encyclopedia Britannica: online, 2006). Also, Sternberg (1985:45) defines intelligence as “mental activity directed toward purposive adaptation to, and selection and shaping of, real-world environments relevant to one’s life”.

**1.5.2 Multiple intelligences:** Gardner (1983) defines multiple intelligences as a psychological theory about the mind. It is a critique of the notion that there is a single intelligence which we are

born with, which can't be changed, and which psychologists can measure. It's based on a lot of scientific research in fields ranging from psychology to anthropology to biology. It's not based upon test correlations, which most other intelligence theories are based on. The claim is that there are at least eight different human intelligences. Most intelligence tests look at language or logic or both – those are just two of the intelligences. The other six are musical, spatial, bodily/kinesthetic, interpersonal, intrapersonal, and naturalist. Gardner (ibid) made two claims. The first claim is that all human beings have all of these intelligences. It's part of our species definition. The second claim is that, both because of our genetics and our environment, no two people have exactly the same profile of intelligences, not even identical twins, because their experiences are different.

## **Section Two**

### **Theoretical Background**

#### **2.1 Multiple Intelligences Theory**

Gardner (2006:24) believes that it is of the utmost importance that people recognize and nurture all of the varied human intelligences, and all of the combinations of intelligences. People are all so different largely because they all have different combinations of intelligences. If they recognize this, then they will have at least a better chance of dealing appropriately with the many problems that they face in the world.

Armstrong (2009:5) reported the first attempt to test intelligence in 1904, when the minister of public instruction in Paris asked the French psychologist Alfred Binet and a group of colleagues to develop a means of determining which primary grade students were "at risk" for failure so these students could receive remedial attention. Out of their efforts came the first intelligence tests. Imported to the United States several years later, intelligence testing became widespread, as did the notion that there was something called "intelligence" that could be objectively measured and reduced to a single number or "IQ" score. Then Armstrong (ibid: 6) explained Gardner's reservations on "IQ". Gardner was convinced that our culture had defined intelligence too narrowly; he proposed in the book **Frames of Mind** (Gardner, 1993) the existence of at least seven basic intelligences. More recently Gardner (1999) has added an eighth and discussed the possibility of a ninth.

In his theory of multiple intelligences, Gardner sought to broaden the scope of human potential beyond the confines of the IQ score. He seriously questioned the validity of determining intelligence through the practice of taking individuals out of their natural learning environment and asking them to do isolated tasks they'd never done before—and probably would never choose to do again. Instead, Gardner suggested that intelligence has more to do with the capacity for (1) solving problems and (2) fashioning products in a context-rich and naturalistic setting (Armstrong, 2009: 6).

Spears (2011:59) reveals that Gardner's research consisted of brain research and interviews with stroke victims, prodigies, and individuals with autism. Depending on his findings, Gardner established eight criteria (he has added a ninth) for identifying intelligences. The eight criteria used by Gardner to identify the intelligences are listed below:

#### **2.1.1 Isolation as a brain function**

Mckenzie (1999: online) clarifies that "as medicine studies isolated brain functions through cases of brain injury and degenerative disease, we are able to identify actual physiological locations for specific brain functions. A true intelligence will have its function identified in a specific location in the human brain".

#### **2.1.2 The existence of idiots, savants, prodigies, and other exceptional individuals**

Prodigies are individuals who exhibit precocious intellectual skills. Brody (1992:34) illustrates that evidence of precocious intellectual development in the absence of parallel precocity in other intellectual skills argues strongly for the independent development of separate intelligences. Idiot savants are individuals who exhibit an exceptional development of an intellectual ability who are related to mediocre in other intellectual skills. The existence of such a pattern of ability argues for the independence of different types of intelligence (Brody, 1992:34).

#### **2.1.3 Set of core operations**

Gardner(1983) states that to run a computer, a set of disk operating systems (DOS) are required. Also to do each of human intelligences, specific operations are required. That is, the core operations of intelligence should be identifiable as "computational devices" or mental operations of some recognizable kinds. De Figueroa (2008:14) asserts that each intelligence has a definable set of operations which can be enumerated with specificity and taught

to another person. For example, bodily- kinaesthetic operations may form the ability to imitate the physical movements of others, while musical intelligence operations may involve sensitivity to pitch, tone, timber or the ability to discriminate among different rhythmic patterns. Cigman and Davis (2009:243) point out that linguistic intelligence has core of operations represented in sensitivity to the meaning of words, to order among words, to the sounds and rhythms of words and to the different functions of languages.

#### **2.1.4 Developmental History with an Expert End Performance**

McKenzie (1999:online) explains that a clear pattern of developmental history of the human mind is being documented by clinical psychologists. These patterns show that a true intelligence has an identifiable set of stages of growth with a mastery Level which exists as an end state in human development. McKenzie (1999:online) hints that we can see examples of people who have reached the mastery level for each intelligence.

#### **2.1.5 The intelligences have evolutionary histories and evolutionary plausibilities**

Bjorklund (2012:525) asserts the fact that human intelligence played an important role in the evolution of our species, and it has to be some evolutionary history of an intelligence and a plausible evolutionary explanation of how these intelligences may have been selected. Even abilities that might be unique to humans, such as music, have an evolutionary plausibility.

Gardner (1983) believes that there are adequate evidences that the human species has developed intelligence over time by human experiences. Evidences like the musical intelligences of birds, the spatial intelligence of mammals or early pottery, archeological artifacts or cave drawings, enhanced Gardner's beliefs.

#### **2.1.6 Support from Experimental Psychological Tasks**

Tupper (2002:507) believes that experimental and cognitive psychologists should be able to use different tasks and tests to determine if the set of tasks associated with a proposed intelligence actually functions cohesively. Tupper (ibid.) explains that these tasks and tests should give insight on how the set of tasks for an intelligence functions, or does not, which can give insight on whether or not the set of skills is in fact a separate intelligence. Gardner (1999:125) suggests that existential intelligence is more debatable within these domains, citing personality inventories that attempt to measure religiosity or spirituality. Gardner (1999:125)

noted, "it remains unclear just what is being probed by such instruments and whether self-report is a reliable index of existential intelligence". It seems transcendental states of consciousness and the cognition they engender, do not lend themselves to quantification or easy replication in psychology laboratories (Tupper, 2002:507).

**2.1.7 Support from psychometric tasks:** Gardner (1993:62) believes that psychological testing such as IQ tests is helpful in determining an intelligence to the extent that the tasks for the purpose of assessing one intelligence relate highly with one another.

**2.1.8 Susceptibility to Encoding in a Symbol System:** Gardner (ibid.) shows that this criterion measures the ability of intelligence to naturally gravitate towards embodiment in a symbolic system such as language, pictures, or mathematics. Gardner believes that an intelligence can proceed without a special symbol system, a primary characteristic of human intelligence is its "natural gravitation" towards a symbolic system.

## **2.2 Gardner's Intelligences**

As Livo (2000:xv) illustrates, Gardner's theory of multiple intelligences presents a way to understand the intellect; it looks at how each of us comprehends, examines, and responds to outside stimuli to solve a problem or anticipate what will come next.

Gardner refused the idea that everyone can learn the same materials in the same way for all. Thus, Gardner classified eight and more relatively autonomous intelligences. But Cherry (2014: online) shows that Gardner's theory has come under criticism from both psychologists and educators. The critics argue that Gardner's definition of intelligence is too broad, and that his eight different "intelligences" simply represent talents, personality traits and abilities (ibid.). Waterhouse (2006:208) also sees that Gardner's theory lacks empirical evidence or lacks the validity. Despite this, Cherry (2014: online) asserts that the theory of multiple intelligences enjoys considerable popularity with educators. Many teachers utilize multiple intelligences in their teaching philosophy and work to integrate Gardner's theory into the classroom.

Based on the criteria that he developed, Howard Gardner has identified the following eight intelligences (see Table 1):

**2.2.1 Verbal/Linguistic Intelligence:** Fierros (2004:4) illustrates that verbal/linguistic intelligence allows individuals to communicate and make sense of the world through language. Those



who have a keen sensitivity to language in its spoken and/or written forms might demonstrate this strength as poets, writers, lawyers, teachers and public speakers. Fierros (ibid.) confirms that linguistic intelligence is highly valued and rewarded in schools. Also, Armstrong (2009:6) defines this intelligence as the capacity to employ words effectively, whether orally or in writing. This intelligence includes the ability to manipulate the syntax or structure of language, the phonology or sound of language, the semantics or meanings of language, and the pragmatic dimensions or practical uses of language. Some of these uses include rhetoric (using language to convince others to take a specific course of action), mnemonics (using language to remember information), explanation (using language to inform), and metalanguage (using language to talk about itself) (ibid.).

**2.2.2 Logical/Mathematical Intelligence:** Nardi (2001:63) explains this intelligence as it means calculating, quantifying, categorizing, and logically qualifying or organizing objects and ideas, and it includes understanding cause-effect relationships between actions, and ideas. Fogarty and Stoher (2008:9) believe that logical/ mathematical intelligence charts the data, information, and facts in the human minds; also it encompasses an entire range of reasoning skills from the logic of Sherlock Holmes to the cleverness of the Big Bad Wolf to the sound deductions of Archimedes. People with highly developed logical-mathematical intelligence understand the underlying principles of some kinds of a causal system, the way a scientist or a logician does, or can manipulate numbers, quantities, and operations, the way mathematician does (Checkley, 1997:12). Baum et al. (2005:15) add key abilities of logical/ mathematical intelligence:

- Enables individuals to use and appreciate abstract relations.
- Includes facility in the use of numbers and logical thinking.
- Numerical reasoning (calculations, estimation, quantification).
- Logical problem solving (focusing on overall structure and relationships, making logical inferences).

**2.2.3 Bodily-kinesthetic intelligence:** Featherstone (2004:169) describes this kind as the ability to use mental capacities to coordinate bodily movements; also it is the ability to use whole body or parts of body to solve problems. Williams-Medlow (2008:142) believes that the ability to control body movements and handle objects skillfully is true intelligence and the learners have a

great sense of balance and eye-hand coordination shown in such activities. Williams-Medlow (ibid.) mentions some bodily-kinesthetic intelligence skills like: physical coordination, using body language, crafts, using hands to create or build, and expressing emotions through the body. Some skills like athletic movement, creative movement (including responsiveness to music), body control and fine motor abilities, generating movement ideas (such in choreography) are sub abilities of bodily-kinesthetic intelligence (Viens and Kallenbach, 2004:8).

**2.2.4 Spatial-Visual intelligence:** Garnett (2005:151) defines it as the ability to create and manipulate mental images, and the orientation of the body in space. Garnett supposes it may be developed through experiences in the graphic and plastic arts, sharpening observation skills, solving mazes and other spatial tasks, and exercises in imagery and active imagination (ibid.). Spatial/visual intelligence traits include:

- Likes art, drawing, sculpture, painting
- Enjoy reading and writing
- Understand charts and graphs
- Use metaphor
- Use language like “it looks good to me” or “I see what you mean.”
- Possesses capacity to create a graphic likeness of a real object
- Draw diagrams and illustrations (Williams-Medlow, 2008:144).

**2.2.5 Musical intelligence:** Droge (2005:21) defines this type as the ability to perceive, create, or produce music , and like any other intelligence, levels and combinations of characteristics may vary from individual to individual. It also involves a particular capacity in performing, composition and appreciation of musical patterns (Allen and Gordon, 2012:16). People with musical intelligence are sensitive to sounds and rhythm and able to interact, create and understand meanings through sounds. Williams (2014:online) shows that people with musical intelligence are known to:

- Seek patterns in their environment
- Be drawn to sound
- Easily memorize phrases and words in foreign languages
- Use patterning to remember things
- Have good rhythm
- Have the ability to easily remember songs

- Have a high level of understanding of musical structure, notes, tones, and rhythm.

In addition, Teele (2004:138) sees that activities which involve musical intelligence can greatly assist beginning readers and English language learners in understanding the rhythm of English, phonological awareness, phonemic segmentation, and syllables. Rhyming words, alliteration, songs that represent initial, medial, final consonants, or songs and (rhythmic stories that teach vocabulary words, comprehension skills), and sounds can assist learners.

**2.2.6 Interpersonal intelligence:** As Alvis et al. (1999:399) elucidate it; this intelligence includes accurately interpreting facial expressions, voices and physical gestures. Human ability to effectively communicate verbally and nonverbally with others is a product of interpersonal intelligence. It is a direct use of this intelligence when a person is able to influence another person or group of people by what he says or does. People who use their personal intelligence to a high degree are political leaders, teachers, and counselors.

Silberman (2000: v) adds eight skills related to interpersonal intelligence:

- Understanding people
- Expressing yourself clearly
- Asserting your needs
- Exchanging feedback
- Influencing others
- Resolving conflict
- Being a team player
- Shifting gears when relationships are stuck.

**2.2.7 Intrapersonal intelligence:** Fogarty and Stoher (2008:17) describe this type of intelligence as a frame of mind in which learners internalize learning through thoughtful connections and then transfer it to novel situations through reflective application. Fogarty and Stoher (ibid.) indicate that this type of intelligence can be seen most vividly in personal diaries, daily journals, thinking logs, sketchpads, and notebooks. Self-reflection, self awareness, and self-evaluation are often evidenced in these written formats, which evolve over time. Personal growth, acquisition of knowledge, and development of skills such as drawing and sketching are

systematically traced through the pages of these continuing personal records. They provide fertile ground for meaningful reflection and powerful self-analysis and evaluation.

Hoerr et al. (2000:43) believe that a strong intrapersonal intelligence positions us for success; conversely, a weak intrapersonal intelligence likely means that we will continue to meet frustration and failure. Hoerr et al. (2000:43) underline the fact that strong intrapersonal intelligence allows us to successfully navigate situations to capitalize on our strengths and minimize our weaknesses. Conversely, a weak intrapersonal intelligence causes us to continue to make the same mistakes and prevents us from learning how to solve problems or avoid them.

There are key abilities of intrapersonal intelligence such as:

- Enables individuals to form a mental model of themselves.
- Involves drawing on the model to make decisions about viable courses of action.
- Includes the ability to distinguish ones' feelings, moods and intentions and to anticipate ones' reaction to future courses of action (Baum et al., 2005:18).

Baum et al (ibid.) state many strategies or products that emphasize intrapersonal intelligence such as:

- Genealogy
- Portfolio/ reflection
- Sermon
- Poem
- Journal/ diary
- Action plan
- Artwork
- Autobiography
- Musical composition.

**2.2.8 Naturalistic intelligence:** Nardi (2001:69) believes that this intelligence includes all survival skills related to natural world. Classifying and using or relating to plants, animal, body parts, and natural materials and geographic features are vital; working knowledge of ecological relationship and other natural patterns and processes of life are also included. Ricketts and Ricketts (2010:78) describe a naturalist as a person who has expertise in recognition, investigation, and classification of plants and animals. So, Ricketts and Ricketts (2010:78) believe that people with naturalistic

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intelligence have a great sensitivity to nature and their place within it and naturalists have the ability to nurture and grow things, and they are skilled at caring for, training or taming, and interacting with animals. Core attributes of the naturalistic intelligence include:

- Communing with nature.
- Caring for, taming, and interacting with living creatures.
- Recognizing and classifying species.
- Showing sensitivity to natural surroundings.
- Growing things.
- Acknowledging the impact of nature on oneself (Dunlap,2000:162)

**Table (1)\***  
Gardner's eight intelligences

Type of intelligence	Description
Linguistic	The capacity for speech, along with mechanisms dedicated to phonology (speech sounds), syntax (grammar), semantics (meaning), and pragmatics (implications and uses of language in various settings).
Musical	The ability to create, communicate, and understand meanings made of sound, along with mechanisms dedicated to pitch, rhythm, and timbre (sound quality).
Logical-mathematical	The ability to use and appreciate relationships in the absence of action or objects - that is, to engage in abstract thought.
Spatial-Visual	The ability to perceive visual or spatial information, modify it, and re-create visual images without reference to the original stimulus. Includes the capacity to construct images in three dimensions and to move and rotate those images.
Bodily-kinesthetic	The ability to use all or part of the body to solve problems or fashion products; includes control over fine and gross motor actions and the ability to manipulate external objects.
Intrapersonal	The ability to distinguish among one's own feelings, intentions, and motivations.
Interpersonal	The ability to recognize and make distinctions among other people's feelings, beliefs, and intentions.
Naturalistic	The ability to recognize, categorize and draw upon certain features of the environment.

### Section Three

#### **Procedures and Analysis of Data**

##### **3.1 Population and Sample**

To achieve the intended aim of the research, all EFL instructors at English language Departments at Colleges of Languages, Arts (University of Baghdad) , Basic education and Arts (Al-Mustansiriyah University) and College of Education at Babylon University, during the academic year 2013-2014 , represent the population of the research.

The total number of these instructors (who actually practice teaching) is about 100 males and females. The researcher randomly selected 70 instructors who form 70% of its original population to represent the main sample of this research. After collecting the total checklists which

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had been answered by the sample, the researcher eliminated six of these checklists because of the inaccurate answers. Therefore the final number is 64 checklists. Table 2 below shows the distribution of the sample.

**Table 2**  
Distribution of the Sample

University	College	Numbers before elimination	Numbers after elimination
Baghdad	Languages	17	15
	Arts	14	13
Al-Mustansiriyah	Arts	12	12
	Basic Education	15	14
Babylon	Education	12	10
<b>Total</b>		<b>70</b>	<b>64</b>

### **3.2 Instrument:**

An objective questionnaire has been designed by the researcher since it is consistent with the aim of the study. The researcher designed the checklist after following these steps:

- General review of previous studies related to methods of teaching English language and assessment.
- General review of previous studies related to multiple intelligence theory.
- Personal experience as assistant instructor in teaching English as a foreign language.

The checklist consists of eight domains matching the number of Gardner's intelligences in his "multiple intelligence theory". Each domain of these intelligences has eight items. These items involve activities related to Gardner's intelligences. Thus, the total number of the checklist items is sixty-four. A Quintet Likert scale has been used by the researcher. Likert scale consists of five responses (strongly agree, agree undecided, disagree, strongly disagree). These responses have been given scores ranging between four and zero, as shown in Table 3.

**Table 3**  
The Scoring Scale of Responses

response	strong agree	agree	undecided	disagree	Strongly disagree
score	4	3	2	1	0

Because of the large number of checklist items (64 items), and to ensure that all items will be answered in the same precision and effectiveness, the researcher sorted these items into two orders: ascending and descending order; i.e. half of sample members took the checklist copies that started from 1 to 64 (ascending) while the other half took the copies that started from 64 to 1 (descending).

### **3.3 Validity:**

Validity is the process of reflecting how well a tool measures what it is supposed to measure and nothing else (Heaton, 1975:153 and Bergman, 1981:150). Face validity refers to the way the test looks to the examinees, test administrators and educators (Harris, 1969:7). To fulfill face validity, the questionnaire was submitted to a jury\* of specialists in teaching and testing English language. After making all the necessary modifications suggested by the jury members, the final version of the questionnaire is prepared, as shown in **Appendix 1**.

### **3.4 Reliability:**

It is the stability of scores for the same subjects. A given test is said to be reliable if it is consistent and dependable (Lado, 1961:330 and Guantlet, 1961:110). Brown (2002:17) clarifies that Cronbach alpha often presents an appropriate reliability estimate for language test development projects and language testing. The final result of reliability through Cronbach alpha formula was (0.81) which is good value. " Increasing reliability much beyond .80 is often wasteful of time and funds with the exception of applied setting where important decisions are made with respect to specific test scores " (Nunnally, 1978:245-246).

### **3.5 Statistical Methods:**

In order to achieve the aim of this research, to establish the validity, reliability and to analyze the collected data, the following statistical methods have been adopted:

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\* The jury members consists of :

- Ass. Prof. Abdul Jabbar A. Darwash (Ph.D) College of Basic Education/ Al- Mustansiriyah University.
- Ass. Prof. Abdul Jalil Jasim (M.A) College of Arts/ Al- Mustansiriyah University.
- Ass. Prof. Abdul Kareem Fadhil (Ph.D) College of Education- Ibn Rushd/ University of Baghdad.
- Ass. Prof. Mu' ayad M. Saeed (Ph.D) College of Education- Ibn Rushd/ University of Baghdad.
- Ass. Prof. Munther Manhal (Ph.D) College of Languages/ University of Baghdad.
- Ass. Prof. Omran M. Mahood (Ph.D) College of Education- Ibn Rushd/ University of Baghdad.
- Ass. Prof. Riadh Khaleel (Ph.D) College of Languages/ University of Baghdad.
- Ass. Prof. Sabah Slebi (Ph.D) College of Languages/ University of Baghdad.
- Ass. Prof. Shaima Al-Bakry College of Education- Ibn Rushd/ University of Baghdad.

- Weighted mean; to identify the degree of implementation of each item.

Weighted mean 
$$x = \frac{\sum w_i x_i}{\sum w_i}$$

Where  $x_i$  = value of observation  $i$   
 $w_i$  = weight for observation  $i$  (Anderson and et al., 2011:144).

- Percentages.

### 3.6 Analysis of Data:

It is obvious from analyzing data that:

**3.6.1** Verbal-linguistic intelligence has the highest weighted mean (average) with 3.276 and highest percentage of 81.9.

**3.6.2** With a weighted mean of 3.118 and a percentage of 77.95, interpersonal intelligence occupied the second rank.

**3.6.3** Visual-spatial and naturalistic intelligences have the third and fourth ranks with a weighted mean of 2.894 and 2.870; and with percentages of 72.35 and 71.75 respectively.

**3.6.4** Logical-mathematical intelligence occupied the fifth rank with a weighted average of 2.636 and a percentage of 65.9.

**3.6.5** While body-kinesthetic, intrapersonal and musical intelligences occupied the last ranks with a weighted mean of 2.369, 2.279 and 2.274 respectively and with percentages of (59.22; 56.97 and 56.58) respectively (Table 4). For more details, see **Appendix 2**.

**Table 4** Multiple intelligence profiles for EFL Instructors

Intelligences	Weighted Mean	Percentage %	Rank
Verbal-Linguistic	3.276	81.9	1
Interpersonal	3.118	77.95	2
Visual- Spatial	2.894	72.35	3
Naturalistic	2.870	71.75	4
Logical-Mathematical	2.636	65.9	5
Body-Kinesthetic	2.369	59.22	6
Intrapersonal	2.279	56.97	7
Musical	2.274	56.85	8

### 3.7 Discussion of Results

Based on the results obtained, it is clear that the Linguistic intelligence dominates the first rank in the sequence of the final results with a weighted mean of 3.276. What makes this result expected is the specialization of the sample members (teaching English language) which makes them in touch with every detail



concerning English language and linguistics. Interpersonal intelligence came second which is below expectations since all the sample members are working in the teaching field and the essence of teaching is communication, while the other intelligences came with humble averages which do not match the expectations.

Analysis of data shows disparity in the averages and percentages of multiple intelligences between those which related to the nature of daily work of sample members (teaching English language) and the other intelligences. Linguistics and interpersonal intelligences have been reinforced through teaching students for years. Low average and percentage of visual-spatial intelligence 2.894 and 72.35 could reveal the lack of using activities that are related to this type of intelligence inside the classroom such as, visual motivated learning, visual expressions, images, graphs, films and demonstrations. Also, low weighted mean and percentage of body-kinesthetic intelligence 2.369 and 59,22 indicate shortage in using activities such as gestures, facial expressions, writing on a board, movement inside classroom, using role-playing especially in teaching plays, poetry etc. The same expectations are revealed when discussing the low results of logical- mathematical, intrapersonal and naturalistic intelligences, which may reveal inadequate use of some activities that reinforce learning through multiple intelligences.

It is not surprising that most EFL instructors scored low average in musical intelligence, since the Iraqi culture does not emphasize the ability to learn music or play instrument (whether in schools, colleges or jobs in general). This result is consistent with findings reported by Koshaha (2003), and Malm (2001) which indicate that the lowest intelligence among Arabic undergraduate students is musical intelligence.

## **Section Four**

### **Conclusions, Recommendations and Suggestions**

#### **4.1 Conclusions:**

The following points imply what the researcher concludes from this study:

**4.1.1** The majority of the research sample is characterized by verbal-linguistic intelligence more than the rest of multiple intelligences.

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**4.1.2** Low weighted averages indicate low development of visual-spatial, naturalistic, logical mathematical, bodily-Kinesthetic, intrapersonal, musical intelligences.

**4.1.3** Low weighted average in interpersonal intelligence indicates a gap of communication between the students and the teacher which simply causes lack of interaction and lack of cooperation in the classroom which negatively affects teaching.

**4.1.4** Low weighted averages in some multiple intelligences types may negatively affect the receipt of educational materials on the students who have the other different intelligences more than verbal-linguistic intelligence.

**4.1.4** High weighted average of verbal-linguistic intelligence refers to the use of teaching methods associated with the linguistic aspect more than what likely to be a comprehensive concept of multiple intelligences.

**4.1.5** The successful use of questionnaire as a mean for performance evaluation which related to multiple intelligences.

#### **4.2 Recommendations:**

The following list of recommendations is developed based on the results and conclusions of this research.

**4.2.1** There is a need to self-reinforce to multiple intelligences among EFL instructors through practicing some activities, especially those regard to logical-mathematical, body-kinesthetic, intrapersonal and musical intelligences.

**4.2.2** Teachers are recommended to enhance multiple intelligences of students by using different activities inside the classroom, such as diagrams, images, audio-video records, critical thinking, role play and improvisational theater, etc.

**4.2.3** ELT instructors are invited to adopt methods of teaching, that consider the different multiple intelligences of students, and not only what is related to Verbal-Linguistic intelligence.

**4.2.4** It is important to enrich textbooks with what develops multiple intelligences by adopting the style of diversity in teaching and learning. Pictures, charts, audio and video records, plays, collaborative work and solving-problem would be very helpful.

**4.2.5** It is necessary to adopt an activity booklet beside the textbook, enriched with activities and events that promote the use of external environment, collaborative work, music, theater, manual labor in accordance with the scientific materials.

### **4.3 Suggestions for Further Studies:**

On the basis of findings and conclusions of this research, the researches below are suggested:

**4.3.1** An experimental research with the population in the current study, to measure the impact of age, gender, educational experiences, and years of serves in teaching and education fields, on the final results.

**4.3.2** A study to examine the multiple intelligences profiles in other Iraqi colleges, universities and other educational fields.

**4.3.3** A study to investigate the effect of teaching students in the light of multiple intelligences theory on their performance in certain language skills.

**4.3.4** Studies to determine if the content of the students' textbooks addresses and develops the students' intelligence profiles.

**4.3.5** Obtain the multiple intelligences theory as an effective method of teaching.

## **The introductory paragraph**

### **Dear instructor**

You are cordially invited to participate in a research titled "Identifying the multiple intelligences of Iraqi EFL Instructors at college level". The purpose of this research is to identify your multiple intelligences profile.

Your participation is very important, therefore I would like to ask you to involve by filling out the questionnaire. Your responses will be used for statistical computing only.

Thank you in advance for your assistance and cooperation.

### **Appendix 1 Final questionnaire**

no	Item	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1	You enjoy word play, making puns, limericks.					
2	You read everything; books, magazines, newspapers, even product labels.					
3	You can easily express yourself either orally or in writing, i.e. you're a good story-teller or writer.					
4	You pepper your conversation with frequent allusions to things you've read or heard.					
5	You like to do crosswords, play scrabble or have a go at other word puzzles.					

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no	Item	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
6	People sometimes have to ask you to explain a word you've used.					
7	In school you preferred subjects such as English, history and social studies.					
8	You can hold your own in verbal arguments or debates.					
9	You enjoy working with numbers and can do mental calculations.					
10	You're interested in new scientific advances.					
11	You can easily balance your cheque book and do the household budget.					
12	You like to put together a detailed itinerary for vacations or business trips.					
13	You enjoy the challenge of brain teasers or other puzzles that require logical thinking.					
14	You tend to find the logical flaws in things people say and do.					
15	Math and science were among your favorite subjects in school.					
16	You can find specific examples to support a general point of view.					
17	You have an appreciation of art.					
18	You tend to make a visual record of events with camera or camcorder.					
19	You have no problem reading maps and navigation.					
20	You enjoy visual games such as jigsaw puzzles and mazes.					
21	In school you liked lessons in art and preferred geometry to algebra.					
22	You often make your point by providing a diagram or drawing.					
23	You can visualize things from a different perspective.					
24	You prefer reading material that is heavily illustrated.					
25	You can play a musical instrument.					
26	You respond to music kinesthetically, performing, dancing.					
27	Usually, you can remember a tune after hearing it just a couple of times.					
28	You often listen to music at home and in your car.					
29	You recognize different musical styles, genres, cultural variations.					
30	You cannot imagine life without music.					
31	You often whistle or hum a tune.					

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no	Item	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
32	You like a musical background when you're working.					
33	You take part in a sport or regularly perform some kinds of physical exercises.					
34	You're quite adept at 'do-it-yourself'.					
35	You like to think through problems while engaged in a physical pursuit such as walking or running.					
36	You do not mind getting up on the dance floor.					
37	You need to physically handle something to fully understand it.					
38	You use hand gestures or other kinds of body language to express yourself.					
39	You like rough and tumble play with children.					
40	You need to tackle a new learning experience 'hands on' rather than reading a manual or watching a video.					
41	You enjoy working with other people as part of a group or committee.					
42	People tend to come to you for advice.					
43	You prefer team sports, such as basketball, softball, football, to individual sports such as swimming and running.					
44	You like games involving other people such as Monopoly, Trivial Pursuit.					
45	You have several very close personal friends.					
46	You communicate well with people and can help resolve disputes.					
47	You have no hesitation in taking the lead; showing other people how to get things done.					
48	You prefer talk over problems with others than trying to resolve them by yourself.					
49	You keep a personal diary or long to record your innermost thoughts.					
50	You often spend 'quiet time' reflecting on the important issues in your life.					
51	You have set your own goal and you know where you're going.					
52	You are an independent thinker; you know your own mind.					
53	You have a private hobby or interest					

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no	Item	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
	which you do not really share with anyone else.					
54	Your idea of a good vacation is an isolated hilltop cabin rather than a five-star resort and lots of people.					
55	You have a realistic idea of your own strengths and weaknesses.					
56	You work for yourself or have seriously contemplated 'doing your own thing'.					
57	You keep or like pets.					
58	You can recognize and name many different types of trees, flowers and plants.					
59	You have an interest in and good knowledge of how the body works, where the main internal organs are, and keep abreast on health issues.					
60	You could envision yourself as farmer or maybe you like to fish.					
61	You are a keen gardener.					
62	You have an understanding of, and interest in, the main global environmental issues.					
63	You are interested in social issues, psychology and human motivations.					
64	You consider that the conservation of resources and achieving sustainable growth are two of the biggest issues of our times.					

**Appendix 2 (Final results)**

Multiple Intelligences	Item number	weighted arithmetic mean	Percentage %	Rank
Verbal-Linguistic	1	3.474	86.85	3
	2	2.714	67.85	8
	3	3.654	91.35	1
	4	3.149	78.72	5
	5	2.980	74.5	6
	6	3.542	88.55	2
	7	2.825	70.62	7
	8	3.307	82.67	4
<b>Total</b>	<b>8</b>	<b>3.276</b>	<b>9.81</b>	<b>1</b>
Logical-Mathematical	9	٢.٦٣٤	٨٥.٦٥	٤
	10	٣.٠٦٣	٧٦.٥٧	٢
	11	٢.٤٦٠	٦١.٥	٥
	12	٢.٣٠١	٥٧.٥٢	٧
	13	٢.٧٣٠	٦٨.٢٥	٣
	14	٢.٤١٢	٦٠.٣	٦
	15	٢.٢٨٥	٥٧.١٢	٨
	16	٣.٢٠٦	٨٠.١٥	١
<b>Total</b>	<b>8</b>	<b>2.636</b>	<b>٦٥.٩</b>	<b>٥</b>
	17	٣.٤٢٢	٨٥.٥٥	١

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Visual-Spatial	18	٢,٨٥٠	٧١,٢٥	٤
	19	٢,٤٧٦	٦١,٩	٦
	20	٢,٤٢٨	٦٠,٧	٧
	21	٢,٩٨٦	٧٤,٦٥	٣
	٢٢	٢,٢٥٣	٥٦,٣٢	٨
	٢٣	٢,٧٣٠	٦٨,٢٥	٥
	٢٤	٣,١٧٤	٧٩,٣٥	٢
<b>Total</b>	<b>8</b>	<b>٢,٨٩٤</b>	<b>٧٢,٣٥</b>	<b>٣</b>
Musical	٢٥	١,٤٢٨	٣٥,٧	٧
	٢٦	١,٢٠٦	٣٠,١٥	٨
	٢٧	٢,٠٤٧	٥١,١٧	٢
	٢٨	٢,١٧٤	٥٤,٣٥	١
	٢٩	١,٨٠٩	٤٥,٢٢	٣
	٣٠	١,٦٨٢	٤٢,٠٥	٥
	٣١	١,٦٣٤	٤٠,٨٥	٦
٣٢	١,٧٩٣	٤٤,٨٢	٤	
<b>Total</b>	<b>8</b>	<b>٢,٢٧٤</b>	<b>٥٦,٨٥</b>	<b>٨</b>
Body-Kinesthetic	٣٣	٢,٤٢٨	٦٠,٧	٥
	٣٤	٢,٩٦٨	٧٤,٢	١
	٣٥	٢,٨٠٩	٧٠,٢٢	٣
	٣٦	١,١٩٠	٢٩,٧٥	٨
	٣٧	٢,٠٧٩	٥١,٩٧	٦
	٣٨	٢,٨٢٥	٧٠,٦٢	٢
	٣٩	٢,٠١٥	٥٠,٣٧	٧
٤٠	٢,٦٣٤	٦٥,٨٥	٤	
<b>Total</b>	<b>8</b>	<b>٢,٣٦٩</b>	<b>٥٩,٢٢</b>	<b>٦</b>
Interpersonal	٤١	٣,١٤٢	٧٨,٥٥	٣
	٤٢	٣,٠٩٥	٧٧,٣٥	٤
	٤٣	٢,٣٩٦	٥٩,٩	٧
	٤٤	٣,٦٠١	٩٠,٠٢	١
	٤٥	٢,٩٢٢	٧٣,٠٥	٥
	٤٦	٣,١٥٨	٧٨,٩٥	٢
	٤٧	٢,٨٥٧	٧١,٤٢	٦
٤٨	٢,١٥٨	٥٣,٩٥	٨	
<b>Total</b>	<b>٨</b>	<b>٣,١١٨</b>	<b>٧٧,٩٥</b>	<b>٢</b>
Intrapersonal	٤٩	١,٤٤٤	٣٦,١	٨
	٥٠	٢,٥٢٣	٦٣,٠٧	٤
	٥١	٢,٧٦١	٦٩,٠٢	٣
	٥٢	٢,٩٨٤	٧٤,٦	١
	٥٣	٢,٤٢٨	٦٠,٧	٥
	٥٤	٢,٣١٧	٥٧,٩٢	٦
	٥٥	١,٤٧٢	٣٦,٨	٧
٥٦	٢,٩٥٧	٧٣,٩٢	٢	
<b>Total</b>	<b>٨</b>	<b>٢,٢٧٩</b>	<b>٥٦,٩٧</b>	<b>٧</b>
Naturalistic	٥٧	١,٧٣٠	٤٣,٢٥	٧
	٥٨	١,٦٥٠	٤١,٢٥	٨
	٥٩	٢,٧٦١	٦٩,٠٢	٤
	٦٠	٢,٨٠٩	٧٠,٢٢	٣
	٦١	٢,١١١	٥٢,٧٧	٦
	٦٢	٢,٦٣٤	٦٥,٨٥	٥
	٦٣	٢,٩١٤	٧٢,٨٥	٢
٦٤	٣,٢١٦	٨٠,٤	١	
<b>Total</b>	<b>٨</b>	<b>٢,٨٧٠</b>	<b>٧١,٧٥</b>	<b>٤</b>

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## المستخلص

### مشكلة البحث:

ينبغي على المعلم او المدرس ان يحظى بنسب مقبولة من الذكاءات المتعددة ويكون عارفاً بهذه النسب التي ستمكنه بالتالي من فهم ومعرفة الذكاءات المتعددة الخاصة بطلابه . وعلية , سيكون المعلم قادراً على استعمال نظرية غاردنر كأحدى طرائق التدريس الفعالة والمناسبة لكل الطلاب على اختلاف ذكائهم وان لا تكون عملية التعلم محصورة بالطلبة ذوي الذكاء اللفظي- اللغوي او الذكاء الرياضي فقط.

### هدف البحث:

يهدف البحث الى معرفة نسب الذكاءات المتعددة لاساتذة الجامعات من مدرسي اللغة الانكليزية لغة اجنبية.

### مجتمع وعينة البحث:

تمثل مجتمع البحث الحالي بكل الاساتذة الجامعيين الذين يُدرّسون اللغة الانكليزية لغة اجنبية في اقسام اللغة الانكليزية في كليات اللغات والآداب (جامعة بغداد), التربية الاساسية و الآداب (الجامعة المستنصرية) , و التربية (جامعة بابل), والبالغ عددهم تقريباً مئة (100) تدريسي وتدرسية . حيث اختارت الباحثة أربع وستون (64) تدريسي وتدرسية ليمثلوا عينة البحث.

### أداة البحث:

اعتمدت الباحثة أستمارة الاستبيان الموضوعية , كونها تناسب هدف البحث.

### الوسائل الإحصائية : أعتمدت الباحثة الوسائل الإحصائية التالية

- الوسط المرجح
- الوزن المئوي

**نتائج البحث :** تباينت نسب الذكاءات المتعددة بين ما هو مرتبط بطبيعة عمل اعضاء العينة وهو تدريس اللغة الانكليزية وبين بقية الذكاءات. أذ احتل الذكاء اللفظي/اللغوي المرتبة الاولى كما هو متوقع بينما جاء الذكاء الموسيقي بالترتيب الاخير , وتناوبت بقية الذكاءات على المراكز المتبقية.

**توصيات البحث:**

- تعزيز الذكاءات المتعددة لدى أساتذة الجامعات العراقية من مدرسي اللغة الانكليزية لغة اجنبية.
- تبني أسلوب التنويع في التعليم والتدريس.
- أستعمال نشاطات مختلفة ومتنوعة داخل الصف لغرض تعزيز الذكاءات المتنوعة للطلبة.
- تبني كتاب نشاط الى جانب الكتاب المنهجي, يحتوي على فعاليات وانشطة تشجع على استعمال البيئة الخارجية, التعلم التعاوني, الموسيقى, المسرح والاعمال اليدوية في التعلم.