

A study on the Relationships between Multiple Intelligences and students' English Reading Comprehension Ability in Islamic Azad University of Ajabshir

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ABSTRACT: The main idea of this research is the investigation of the status of the relationships between Multiple Intelligences and students' English Reading Comprehension Ability in Islamic Azad University of Ajabshir . Therefore, for testing multiple intelligences and for investigating students' English Reading Comprehension Ability we will use for both standard questionnaires in this research. This study's sample is 203 students (87 males 116 females) in Islamic Azad University in Ajabshir. After reliability and validity testing the data has been collected by two questionnaires, multiple intelligences and students' English Learning.

Also descriptive and inferential statistics have been used for analyzing the data. Descriptive statistics for commentary and data categorizing and for hypothesis testing the inferential statistics have been used. Finding shows that; multiple intelligences have effect on students' English Reading Comprehension Ability in Islamic Azad University in Ajabshir.

Keywords: Multiple Intelligences, English Reading Comprehension Ability, Islamic Azad Universities Ajabshir.

INTRODUCTION

For many years, intelligence has been one of the most controversial concepts (Eysenck and Kamin, 1981). This concept, like many other concepts in psychology, is not well defined.

Psychologists have not reached an agreement on what intelligence is (Valsiner and leung, 1994). Although, intelligence is a possession prized by most people, the term has no objective, agreed-upon referent either among the general public or contemporary psychologists.

Characteristics such as age, weight, or height in individuals have proper referents, but we cannot point to a single observable characteristic of a person to indicate his or her intelligence (Kail and Pelligrino, 1985). The problem resides in the fact that intelligence is an abstract concept. It does not have any tangible, exact and physical basis. Intelligence is a general concept for a group of processes which are inferred from people's explicit behaviors and responses. For example, we can observe the problem solving strategies and measure the result of using such strategies precisely, but intelligence which is supposed to create such techniques is not observable (Moafian, 2008).

However, there have been lots of attempts to define intelligence. According to Kline (1991)" intelligence is popularly defined as the ability to learn, understand and deal with novel situations. The intelligent person is seen as quick-witted, acute, keen, sharp, canny, astute, bright and brilliant. At the other end of the scale the unintelligent person is described as dim, dull, thick, half-witted or stupid".

Multiple Intelligences is closely related to the organizational affairs. By developing Multiple Intelligences and studying its effects on Students' English Reading Comprehension ability we will have employees more compatible

in every sophisticated and complicated issue. By investigating these kinds of relationships, managers will consider the importance of multiple intelligences and Students' English Reading Comprehension ability. This paper will review the literature of both in general because of its importance then the result of the study will be come in the followings.

Multiple Intelligence Theory

Gardner's theory has a very solid biological basis. In this theory, the brain has been taken into account as a major physical determinant of intelligence. By studying individuals who had speech impairment, paralysis, or other disabilities, Gardner could find the parts of the brain that were specialized to perform the specific physical functions. He compared the rains of people with disabilities with those who did not have a disability and found that in the disable people there was damage in specific areas. In his studies, Gardner found seven different parts of the brain; as a result, in his theory, he suggested seven different intelligences including musical, mathematical, linguistics, spatial, kinesthetic, interpersonal and intrapersonal, each associated with a specific area of the human brain. Later, Gardner added an eighth one, naturalist, to his list of multiple intelligences (Gardner, 1995; cited in Hosseini, 2003; Noruzi and Rahimi, 2010).

Gardner's MI theory posits that human beings possess at least eight intelligences, to a greater or lesser extent. They are as follow (Armstrong, 2009):

Once this broader and more pragmatic perspective was taken, the concept of intelligence began to lose its mystique and became a functional concept that could be seen working in people's lives in a variety of ways. Gardner provided a means of mapping the broad range of abilities that humans possess by grouping their capabilities into the following eight comprehensive categories or "intelligences":

Linguistic:

The capacity to use words effectively, whether orally (for example, as a storyteller, orator, or politician) or in writing (for example, as a poet, playwright, editor, or journalist). This intelligence includes the ability to manipulate the syntax or structure of language, the phonology or sounds of language, the semantics or meanings of language, and the pragmatic dimensions or practical uses of language. Some of these uses include rhetoric (using language to convince others to take a specific course of action), mnemonics (using language to remember information), explanation (using language to inform), and met language (using language to talk about itself).

Logical-mathematical:

The capacity to use numbers effectively (for example, as a mathematician, tax accountant, or statistician) and to reason well (for example, as a scientist, computer programmer, or logician). This intelligence includes sensitivity to logical patterns and relationships, statements and propositions (if-then, cause-effect), functions, and other related abstractions.

The kinds of processes used in the service of logical-mathematical intelligence include categorization, classification, inference, generalization, calculation, and hypothesis testing.

Spatial:

The ability to perceive the visual-spatial world accurately (for example, as a hunter, scout, or guide) and to perform transformations upon those perceptions (for example, as an interior decorator, architect, artist, or inventor). This intelligence involves sensitivity to color, line, shape, form, space, and the relationships that exist between these elements. It includes the capacity to visualize, to graphically represent visual or spatial ideas, and to orient oneself appropriately in a spatial matrix.

Bodily-kinesthetic:

Expertise in using one's whole body to express ideas and feelings (for example, as an actor, a mime, an athlete, or a dancer) and facility in using one's hands to produce or transform things (for example, as a craftsperson, sculptor, mechanic, or surgeon). This intelligence includes specific physical skills such as coordination, balance, dexterity, strength, flexibility, and speed).

Musical:

The capacity to perceive (for example, as a music aficionado), discriminate (for example, as a music critic), transform (for example, as a composer), and express (for example, as a performer) musical forms. This intelligence includes sensitivity to the rhythm, pitch or melody, and timbre or tone color of a musical piece. One can have a

figural or “top-down” understanding of music (global, intuitive), a formal or “bottom-up” understanding (analytic, technical), or both.

Interpersonal:

The ability to perceive and make distinctions in the moods, intentions, motivations, and feelings of other people. This can include sensitivity to facial expressions, voice, and gestures; the capacity for discriminating among many different kinds of interpersonal cues; and the ability to respond effectively to those cues in some pragmatic way (for example, to influence a group of people to follow a certain line of action).

Intrapersonal:

Self-knowledge and the ability to act adaptively on the basis of that knowledge. This intelligence includes having an accurate picture of oneself (one’s strengths and limitations); awareness of inner moods, intentions, motivations, temperaments, and desires; and the capacity for self-discipline, self-understanding, and self-esteem.

Naturalist:

Expertise in the recognition and classification of the numerous species—the flora and fauna—of an individual’s environment. This also includes sensitivity to other natural phenomena (for example, cloud formations, mountains, etc.) and, in the case of those growing up in an urban environment, the capacity to discriminate among inanimate objects such as cars, sneakers, and CD covers (Noruzi and Rahimi, 2010).

METHODOLOGY AND INSTRUMENTS

This project has been done by two questionnaires with high reliability and validity among 203 students (87 males 116 females) in Islamic Azad University in Ajabshir.

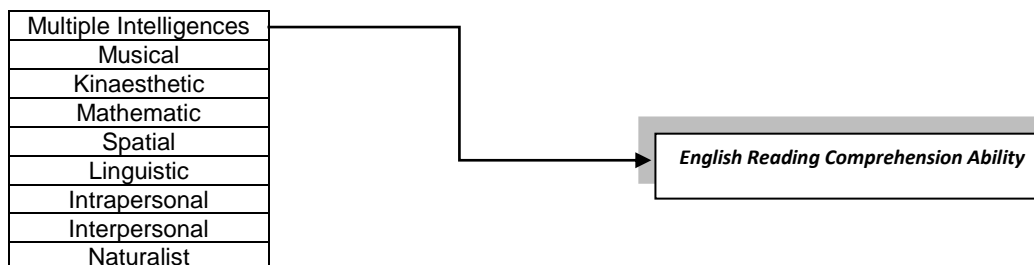
Multiple Intelligences questionnaire

MIDAS Questionnaire: To measure teachers' MI, Multiple Intelligence Developmental Assessment Scale (MIDAS) questionnaire was used, which consists of one hundred and nineteen questions about eight intelligences which are mentioned in Gardner's MI theory. In this questionnaire, a number of questions for each intelligence come as follows :

Type of Intelligence	Musical	Kinaesthetic	Mathematic	Spatial	Linguistic	Intra-personal	Inter-personal	Naturalist
Number	14	13	17	15	20	18	9	13

The results of factor analysis revealed that the questionnaire measures eight hypothetical constructs (Shearer, 1996; cited in Hosseini, 2003).

Conceptual model of research



Research Hypothesis

There is significant relation between Multiple Intelligences and students’ English Reading Comprehension Ability in Islamic Azad University in Ajabshir.

There is significant relation between Musical Intelligences and Students’ English Reading Comprehension Ability in Islamic Azad University in Ajabshir.

There is significant relation between Kinesthetic Intelligences and Students' English Reading Comprehension Ability in Islamic Azad University in Ajabshir.

There is significant relation between Mathematic Intelligences and Students' English Reading Comprehension Ability in Islamic Azad University in Ajabshir.

There is significant relation between Spatial Intelligences and Students' English Reading Comprehension Ability in Islamic Azad University in Ajabshir.

There is significant relation between Linguistic Intelligences and Students' English Reading Comprehension Ability in Islamic Azad University in Ajabshir.

There is significant relation between Interpersonal Intelligences and Students' English Reading Comprehension Ability in Islamic Azad University in Ajabshir.

There is significant relation between intrapersonal Intelligences and Students' English Reading Comprehension Ability in Islamic Azad University in Ajabshir.

There is significant relation between Naturalist Intelligences and Students' English Reading Comprehension Ability in Islamic Azad University in Ajabshir.

Data Analysis

To assess normal distribution, Descriptive statistics was applied. To determine the relationship between multiple intelligences and students' English Learning, Kolmogorov-Smirnov test for the necessity condition for using suitable method tested and using parametric statistics methods for T- Test for independent groups and ANOVA and LSD have been conducted in this study.

RESULTS AND DISCUSSION

Table 1, shows the results of descriptive statistics for the two instruments – multiple intelligences and Students' English Reading Comprehension ability questionnaires - used in the research (see Table 1).

Table 1. Kolmogorov-Smirnov test for assessing normality and validity for using parametric statistics

Variable	Numbers	Mean	Variance	Kolmogorov-Smirnov	significance	Result
Age	203	30.15	3.94	1.34	0.000	Significant
Musical	203	62.65	8.59	1.36	0.049	Significant
Kinaesthetic	203	64.6	7.92	1.35	0.052	Significant
Mathematic	203	60.40	8.96	1.40	0.040	Significant
Spatial	203	54	8.6	1.6	0.01	Significant
Linguistic	203	61	8.6	1.3	0.05	Significant
Intrapersonal	203	64.40	8.2	1.35	0.054	Significant
Interpersonal	203	34.3	4.47	1.39	0.043	Significant
Naturalist	203	45.26	10.09	1.92	0.001	Significant
Multiple Intelligences	203	16.42	2.02	2.08	0.000	Significant

Obtained Z for all studied variables are statistically significant so all the variables can be used by parametric statistics. So for data analysis and hypothesis testing parametric statistical methods were used.

Table 2. Summary of significance and correlations

First Variable	Second Variable	Among	The coefficient	correlation	Level Significance	on Result
Multiple Intelligences	Students' English Reading Comprehension ability	Students	0.76		0.000	significant
Musical	Students' English Reading Comprehension ability	Students	0.64		0.000	significant
Kinaesthetic	Students' English Reading Comprehension ability	Students	0.50		0.000	significant
Mathematic	Students' English Reading Comprehension ability	Students	0.55		0.000	significant
Spatial	Students' English Reading Comprehension ability	Students	0.52		0.000	significant
Linguistic	Students' English Reading Comprehension ability	Students	0.64		0.000	significant
Intrapersonal	Students' English Reading Comprehension ability	Students	0.57		0.000	significant
Interpersonal	Students' English Reading Comprehension ability	Students	0.37		0.000	significant
Naturalist	Students' English Reading Comprehension ability	Students	0.53		0.000	significant

As Table 2, shows there are significant relationship between multiple intelligences and Students' English Reading Comprehension ability. It also reveals that not only there are significant relationships between multiple intelligences and Students' English Reading Comprehension ability in general but also among the dimensions of Multiple Intelligences, i.e. Musical, Kinesthetic, Mathematic, Spatial, Linguistic, Intrapersonal, Interpersonal,

Naturalistic well. And the degree of relationship can be understood from the Pearson correlation coefficient. Shortly this table also shows the intensity of the relationship between two factors, dependent and independent variables and also and the significance of variables i.e. Are two studied variables significant or not?

Discussions and Implications

The Table 2 revealed that there is significant relationship between multiple intelligences and Students' English Reading Comprehension ability and also among dimensions of multiple intelligences.

In the following we bring some practical steps and guides to help developing of both multiple intelligences and Students' English Reading Comprehension ability specifically in the universities.

Some practical guides for having organizational justice and Students' English Reading Comprehension ability in the universities come in the following:

Reading books that are related to improve multiple intelligences and Students' English Reading Comprehension ability in the universities.

Providing some special time for discourse and discussions about multiple intelligences and Students' English Reading Comprehension ability.

Reading, listening and reviewing materials regarding multiple intelligences and Students' English Reading Comprehension ability.

Holding some specific meeting and workshops for developing multiple intelligences and Students' English Reading Comprehension ability.

Doing exercises for developing employees' multiple intelligences and Students' English Reading Comprehension ability abilities.

Using mass media, newspapers and bulletins for employees and managers and others who have role in the universities, about the importance of multiple intelligences and Students' English Reading Comprehension ability.

Reading manifestos of successful characters with high multiple intelligences and Students' English Reading Comprehension ability.

Searching strategies that develop multiple intelligences and Students' English Reading Comprehension ability in the universities.

Encouraging people with suitable strategies to have multiple intelligences and Students' English Reading Comprehension ability.

Concentrating more on choosing and selecting talented students and employees in the universities.

Providing experiences in different occasions in written form not just orally. This will improve formality of the university (Moafian, 2008).

Also

For Lingual Intelligence Improvement:

- participation in vocational conferences
- Group discussions in vocational matters
- Reading multiple intelligence improvement books
- Taking notes of vocational significant occurrences
- Catalogues of lingual skills improvement
- Writing activities and its exercises
- Practicing vocational key words
- Planning to have discussion with other managers
- Reviewing and studying other managers' speeches

For Logical-Mathematical Intelligence Improvement:

- Taking notes of deductive matters
- Socrates-like questions over vocation
- Practicing scientific reasons
- Practicing logical problems' solving for Gas Company by managers
- Classification of data
- Coding problems

For Spatial Intelligence Improvement:

- Utilizing map, graph and table
- Practicing visualization
- Utilizing photography skills
- Utilizing slides and movies
- Visual riddles

For kinesthetic Intelligence Improvement:

- Creative actions
- Applicable thoughts
- Performing soundless actions
- Vocational shows
- Group competition games
- Physical intelligence practicing
- Various applicable activities

For Interpersonal Intelligence Improvement:

- Forming cooperation groups
- Interpersonal communications
- Intercession in involvements
- Educating others
- Paper games

For Intrapersonal Intelligence Improvement:

- Individual studies
- Thinking of emotional times
- Individual games and projects
- Studying on oneself in un-crowded places
- One-minute reaction periods
- Interest focuses
- Communicating others

Propositions for the Future Researchers

It is proposed to do similar researches over this area of study (Ajabshir) in order to compare the results and high accuracy and reliability.

The multiple intelligence of this research is based on Howard Gardner's so it is proposed to do the future researches on the basis of other theories.

It is proposed to do other researches over the relationship of multiple intelligence and Reading Comprehension of other universities in order to reach high accuracy and reliability.

It is proposed to use other questionnaires in the future researches.

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