

Multiple Intelligence: General Proficiency, Speaking, and Reading Comprehension Performance of EFL Learners

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Abstract: The discovery of intelligence helps learners and teachers understand individual differences better and develop educational curriculum as a self-assessment tool. Gardner (1983, 1993) stated that intelligence is a learner's ability to perceive, figure out meaning, adapt to different conditions, learn from experience, illustrate mastery over complexity, solve problems, and make productive decisions. Thus, the effect of the domains of cognition and the differences of learners on the level of intelligence have not been focused adequately in Iran's classrooms. Therefore, this study considers to investigate the possible relationship between multiple intelligence and the performance of reading comprehension, speaking, and their impacts on learners' general proficiency. In this study, 60 senior students filled out Armstrong's MI inventory questionnaire to identify their MI profile. In addition, the participants took a validated TOEFL test (2011). The results of this study have had several pedagogical implications on teaching and learning English to EFL students and learners.

Keywords: Multiple Intelligence, General Proficiency, EFL Learners, Reading Comprehension Performance

Introduction

Galton began the scientific research of the differences among individuals in 1870 (Suen and French, 2003), he stressed that talent was much more the result of genetics than the environment. Cattell who was a Cambridge University lecturer, for the first time took up Galton's individual differences and stated that mental abilities could be measured objectively (Suen and French, 2003). Binet's IQ test was the most famous measure of general intelligence (Henshaw, 2006). Based on Privateer (2006) Binet's test failed to measure the mechanisms of intelligence, and Gardner (1983, as cited in Henshaw, 2006) pointed out that it was not according to any theory of how the mind works (Barzegar, 2011).

Intelligence was described theoretically by Charles Spearman. New statistical technique of factor analysis was used "to determine that there is a significant amount of common variance across all of the tests, with some variance specific to each test" (Kaufman and Sternberg, 2008, as cited in Barzegar, 2011). Therefore, Spearman's theory which measures psychological abilities was accepted as a two factor theory of intelligence and in addition was assumed that there is an underlying ability that is responsible for all mental and intellectual functioning. This could be described as a kind of power in the brain or a mental energy which created a learners' intelligence (Barzegar, 2011). Spearman's method was challenged by some researchers such as Jensen; the scores of the tests could not be

adequately investigated by Spearman's two factor hypothesis and it was concluded that more than one type of ability was involved (Bartholomew, 2004, as cited in Barzegar, 2011).

Gardner's (1983) theory of multiple intelligence was a new definition of general intelligence. According to Gardner (1999), intelligence is much more than a single entity described psychometrically with an IQ score. He defines intelligence as a bio- psychological potential that can be activated in a cultural setting to solve problems or create products (1999). In Gardner's (1999) theory, nine intelligences; Verbal-Linguistic, Musical, Logical-Mathematical, Visual-Spatial, Interpersonal, Intrapersonal, Naturalist, Bodily-Kinesthetic, and Existential intelligences were consisted.

Verbal-Linguistic Intelligence: The human capacity is to use language effectively both in the skills of writing and speaking, in addition to the ability to communicate meaning and develop knowledge of language functions.

Logical-Mathematical Intelligence: The numerical gift; long chains of reasoning are managed and an awareness of logical and numerical patterns are involved.

Visual-Spatial Intelligence: The ability to perceive the world outside and process it in mental models, visualize mental pictures of three-dimensional objects and geometric entities, and notice colors, lines, patterns, spaces and forms, and the relationships between them.

Bodily-Kinesthetic Intelligence: Physical agility that comprises the ability to solve problems or form products using all or part of an individual's body.

Musical Intelligence: Sensitivity to rhythm, pitch and melody; it is the ability to perceive, transform, discriminate between them, and produce musical forms.

Interpersonal Intelligence: The ability to understand the feelings of other people, perceive their motivations and intentions, and properly respond to them.

Intrapersonal Intelligence: The self-knowledge, to understand oneself, set personal goals and priorities accordingly and to go about achieving them.

Naturalist Intelligence: The extensive knowledge of living in the world. Observing, recognizing, and classifying objects, plants, and animals in the natural environment.

Existential Intelligence: The way people find themselves in the world, how they see a connection between themselves and the universe in general, and how they find meaning for such terms as life and existence.

Human beings have different intelligence but the levels and degrees of these intelligence vary in each learner. According to the relevant researches, there are different people with some different intelligence which impact the way they learn things. Therefore, the researches take into account some factors that affect EFL or ESL learners in the process of language learning. Mettetal et al. (1997) consider the impact of a MI curriculum in an elementary school. For data collection they used observations and a survey; they stressed the importance of MI in changing the attitudes of both teachers and learners. Supon (1999) explained the use of the MI theory and rubric design to evaluate the learners' achievement. It is argued that MI in rubric design provides the teachers with challenging and rewarding tools for evaluating the learner's performance. Synder (2000) emphasized on the relationship between learning styles and the academic achievement of high school students. The researcher concluded that an awareness of how students learn is in fact an indispensable factor of successful educational settings. Mbuva (2003) focused on the implementation of the MI theory on the teaching and learning environment in the 21st century. He mentioned that MI theory is an effective teaching and learning means at all levels. Loori (2005) focused on the differences in intelligence preferences of ESL male and female learners. The results showed that "there were significant differences between males' and females' preferences of intelligences. Males preferred learning activities involving logical and mathematical intelligences, whereas females preferred learning activities involving intrapersonal intelligence."

The relationship of MIs with language proficiency was investigated by Yeganehfar (2005). An acceptable correlation between listening, speaking and intrapersonal intelligence was found by her. In another study, Bemani Naeini and Pandian (2010) considered the relationship of MI with listening proficiency and attitudes among TEFL university students. There was no positive correlation between MI and listening proficiency, accordingly the results of the study did not support the possible relationship between MIs and the rate of attitudes. Additionally, in Razmjoo's (2008) study it was indicated that there was no significant relationship between language proficiency and the combination of intelligences in general and the types of intelligences in particular. Barzegar, Mirtabatabaie, and Moradi (2011) explored the possible relationship between EFL learners' MIs and their performance on reading proficiency items. The findings of the study stated that, in addition to linguistic and logical intelligences, there was a weak relationship between interpersonal, intrapersonal, and visual intelligences and answering reading proficiency items.

Whereas different people differ on the level of intelligences and these intelligences can either work together or independently, the findings of this study will be useful for EFL learners and teachers in order to give information

and look differently at the educational curriculum in Iran. The objective of this study is to investigate if the difference in the level of the intelligences has any impact on the performance of reading comprehension, speaking, and additionally the possible relationship between MIs and general proficiency.

Materials and Methods

Participants

Sixty senior students both male and female of Islamic Azad University, Kerman Branch participated in the study. They were adults about 20 to 28 years old.

Instruments

A 70- item questionnaire was used to identify the participants MI profile. The Multiple Intelligence Inventory for Adults by Thomas Armstrong was administered which the students marked the items adapted to their habits and personality. The standard TOEFL test (2011) which consisted of reading, listening comprehension questions, grammar and speaking items was used as another instrument. The TOEFL test served two purposes: 1. To homogenize the sample, 2. To find a correlation between MI questionnaire and the general proficiency of the students.

Procedures and Data analysis

First of all the objectives and procedures of the study were explained to the participants. Accordingly, the participants were asked to answer the questionnaire carefully and patiently. In order to homogenize the sample the TOEFL test was taken. Finally, the collected data was analyzed, and a correlation between MI and reading comprehension, speaking, and general proficiency was found by the researcher.

Conclusion and Result

In spite of the criticism of some scholars on theoretical, conceptual, empirical, and pedagogical grounds, MI serves as a framework allowing teachers to explore their teaching styles and to assist them in making decisions about teaching and learning experiences for learners (Plucker, Callahan, & Tomchin, 1996). Learners are more probably to experience curriculum that is meaningful, personalized, and relevant. The theory states that two of the human intelligences, Verbal and Logical Intelligences, have been dominated in traditional schooling. Gardner's (2000) theory of multiple intelligences has received positive feedback from educators. It has been applied to the problems of tutoring by teachers as well as helping a notable number of educators to question their work and to encourage them to look beyond the dominant discourses of skilling, curriculum, and testing. Haggarty (1995) stated, the MI theory is a rich diversified way of conceiving and clarifying human cognitive abilities, and the combinations of abilities, heightening our awareness of what makes learning possible for individual students. Kagan and Kagan (1998) described MI theory as a powerful 'catalyst' in education. It is based on revitalizing the search for authentic, student-centered approaches to curriculum, instruction and evaluation. According to this perspective the MI theory can be used in order to connect teaching to the ways learners learn, to honor and celebrate diversity, additionally to encourage learners to stretch their skills and develop their intelligences.

According to the findings, it is concluded that the group was strong on Bodily/Kinesthetic and Verbal intelligences. The descriptive results of the two instruments used in this study indicated that the Bodily and Verbal intelligences scored the highest in general proficiency. The class priority of learners' MIs respectively was Bodily/Kinesthetic, Verbal/Linguistic, Interpersonal, Intrapersonal, and Logical/Mathematic; there was no significant relationship between the other intelligences, Visual/Spatial, Musical, Naturalistic, and Existential intelligences, and speaking, reading comprehension, and G.P. Finally, the relationship between MIs and general proficiency, speaking, and reading comprehension was investigated by using the Pearson procedure moment correlation which indicated a significant positive relationship between the two variables.

In order to motivate learners to develop their abilities the MI theory can be used. Moreover, it provides the need to experience learning that allows them to apply and explore their own intelligences and to impact their learning.

The findings of this study suggest that there is a positive relationship between some of the MIs and reading comprehension, speaking, and general proficiency. The results suggested that students with Interpersonal, Intrapersonal, and Verbal Intelligences had higher ability in speaking. Furthermore, there was a significant relationship between the successful performance of reading comprehension and Bodily, Verbal, and Logical Intelligences. Withal, learners with Verbal, Bodily, and Intrapersonal intelligences did better in G.P. Thus, some studies as Razmjoo (2008) found no significant relationship between MIs and language proficiency; whilst, the result of Yeganehfar (2005) indicated a positive relationship between some of the MIs and listening proficiency.

Moreover, in Barzegar et al (2011) study a significant relationship between MIs and reading comprehension performance was found. Similar studies developed the awareness of how MIs relate to different areas of language learning.

As a result, the findings of this study can be a suitable guide for teachers and their curriculum development. Teachers' awareness of learners' MIs helps the improvement and expedition of language learning, as well as learners being informed of their MIs and the differences and types in intelligences. As learners are aware of their intelligences and capacities, they can utilize their strengths and reinforce their weaknesses better.

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