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LEARNING DIVERSITY: MULTIPLE INTELLIGENCES PROFILE OF YEMENI EFL UNIVERSITY STUDENTS

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ABSTRACT

A shift in emphasis toward language learners over the last two decades has generated a great interest of research focusing on learners' individualities and language learning. In most EFL context, particularly in Yemen, teaching of English language is still dominated by the teacher-centered approach that almost ignores learners' different characteristics. The use of instruction that is not responsive to learners' needs results in ineffective learning. Multiple intelligences (MI) theory stimulated teachers to adopt teaching activities that accommodate learners' needs. This theory posits that, languages learners should be engaged in different activities cater for their different learning capacities. This paper attempted to identify Yemeni EFL learners' intelligences profile with the aim to develop English language teaching university instruction and enhance the Yemeni students' learning of English. The participants were thirty female EFL Yemeni students joining second year at Sana'a University. Their intelligence profile was identified using McKenzie's (1999) MI inventory. The findings revealed that EFL university Yemeni students had undeveloped level in the eight intelligences domains. The two most dominant intelligences were mathematical-logical and visual-spatial intelligences. On the other hand, musical and naturalist intelligences were less dominant. The findings of the study would help language teachers to create a meaningful motivational learning environment where EFL learners are engaged in activities that addresses their learning preference.

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INTRODUCTION

A classroom comprises a group of learners with different needs, strength and abilities. In such a learning environment, these differences pose a real challenge for teachers, which render their use of one single teaching method ineffective. Holtzman (2009: 29) has called for "teaching for diversity and equity" which suggests that teachers should admit individual difference among learners and provide them all with a variety of learning opportunities adjusted to their needs. To meet learners' individual differences, teachers can use different strategies and methods that aim to narrow the achievement gap among diverse learners. McBride (2004:9) points out to that "differentiated instruction is vital to effecting positive change in student performance as one-strategy-fits-all approach doesn't work in a real classroom". Different instruction use is not only confined to course content. Tomlinson (2001) indicates to the use of different instructions in several areas, one of which is products (learning outcome measure).

EFL learners have to demonstrate what they have learned by being engaged in various activities. With the trend toward learner-centered classrooms, it becomes important for individual differences of students to be considered particularly in designing learning activities. However, in the Yemeni learning context, diversity of learning is completely neglected. EFL Yemeni university learners passively listen to lectures - the most common delivering method of teaching. What these learners have to do is only to commit the instructional materials to memory. Al Muhaidib (2011:33) states that at most EFL tertiary level "the professor lectures to a large group of student who are expected to absorb and memorize the content". Accordingly, English language learning should be enhanced through providing Yemeni EFL learners with different activities that accommodate their learning needs, and thus, increasing their participation, academic performance and motivation for learning. To achieve that, the present study implemented the theory of multiple intelligences (MI) as a framework to assist instructors to design different activities based on learners' needs and which allows learners to demonstrate their learning in different ways.

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Multiple intelligences theory

Multiple intelligence (MI) theory is propounded by the American psychologist Gardner in 1983. According to this theory, intelligence is "capacity to process a certain kind of information ... an intelligence entails the ability to solve problems or fashion products that are of consequence in a particular cultural setting or community" (Gardner 2006: 33). As opposed to the traditional view of intelligence that people are born with unitary intelligence related to linguistic and mathematical intelligences, Gardner's (1983) theory is built on the premise that intelligence is pluralistic. Based on biology, anthropology, developmental psychology, neuropsychology and psychometrics findings, Gardner (1983) posits that each individual has a unique cognitive profile includes eight domains of intelligences: linguistic-verbal, logical-mathematical, visual-spatial intelligence, bodily-kinesthetic, musical intelligence, intrapersonal, interpersonal, and naturalistic (Table 1). Each individual possesses all the eight intelligences with different proportion; some intelligences are stronger than others.

content, rather the teacher can design one activity selecting some intelligences (Moran *et al.*, 2006). As a result, learners' strong intelligences are enhanced and their weak intelligences are activated.

Multiple intelligences and English language learning

A number of studies have examined the effect of integrating multiple intelligences into teaching instructions and their contributions to language learning skills and aspects. For instance, the findings by Haley (2004) from an experimental study into multiple intelligences implementation in EFL classroom showed that multiple intelligence based activities were more effective in developing EFL learners oral and written proficiency level than the traditional activities. Similarly, Bas and Beyhan (2010) reported that multiple intelligence- supported project-based teaching method enabled the experimental group to achieve higher performance and to have more positive attitude toward English learning than traditional teaching methods.

Table 1. Multiple intelligences adapted from Daloglu (2003)

Intelligence	Definition	Teaching activity	Instructional strategies
Linguistic intelligence	It is the effective use of written and spoken form of language.	Group discussions- giving presentations- reading- storytelling- journal writing.	read, write and talk about it, listen to it
Logical-mathematical intelligence	It is the ability to use number, logical and systematic thinking.	Logic puzzles- critical thinking- problem-solving- guided discovery.	quantify it, think critically about it, conceptualize it
Spatial intelligence	It is the capacity to create mental or physical images.	Guided visualizations- diagrams- movies.	See it, draw it, color it, visualize it, mind- map it.
Bodily-kinesthetic intelligence	It is the ability to use one's body to solve problems.	Simulation activities role-play.	Build it, act it out touch it, get a feeling of it, dance it.
Musical intelligence	It is the ability to perceive and recognize tones and rhythms.	Songs- background music- write lyrics.	Sing it, rap it, listen to it.
Interpersonal intelligence	It is the ability to understand other's feeling, needs and thoughts.	Group work- pair work-games.	Teach it, collaborate on it, interact with respect to it
Intrapersonal intelligence	It is the ability to have self-knowledge.	Project work- Reflective learning activities- learner Diaries	Connect it to your personal life, make choices with regard to it.
Naturalist intelligence	It is the ability to recognize objects in nature.	Classifying and categorizing activities- background music in the form of sounds created in the natural world.	

There has been a growing interest among researchers in applying this theory to the educational setting (Mohamdi *et al.*, 2012, Ahmadian and Hosseini 2012), in particular, English language teaching and learning situations (Armstrong 2000). MI theory is an educational theory (Shariffudin and Foong 2007) that emphasizes individual difference in the abilities of processing information and solving tasks among learners. It has been also described as an approach supporting learning uniqueness and requires reflecting the individuality of learners (Richards and Rodgers 2001). From the MI theory perspective, language learning is facilitated using different learning ways that enable teachers to go beyond the linguistic and logical-mathematical instructions. Biria *et al.* (2014) indicate that adopting MI theory by teachers and curriculum designers is a step toward developing education. That is, if learning is to be effective, learning activities should be designed in a way that matches with the learners' intelligences profiles. However, implementing multiple intelligences in classroom activities do not require designing different activities around the same

At a university context, Sahatsathatsana (2010) used MI theory as a foundation in designing a conversation syllabus to develop EFL learners English proficiency level. The results of the posttest proved that MI syllabus was significantly more effective in developing the proficiency level of the experimental group than teacher-centered lesson plans instructed to the control group. Having identified the experimental group intelligences, a significant positive contribution of verbal-linguistic intelligence to the participants' proficiency level was recognized.

Zarei and Afshar (2014), in investigating the contribution of the eight types of multiple intelligences to EFL learners' reading comprehension and vocabulary knowledge, indicated that an increasing in the learners' reading performance was significantly associated with musical, interpersonal, kinesthetic, and logical intelligences. In addition, vocabulary knowledge was significantly predicted by musical, verbal, visual, kinesthetic and natural intelligences. In addition,

Ahmadian's and Hosseini's (2012) study proved that linguistic intelligence contributed positively to learners' writing ability. The first way to implement MI in language learning is to identify learners' multiple intelligence profile. Thus, the present study aimed to answer the following research question:

- What is the multiple intelligence profile of EFL Yemeni university learners?

Methodology

The sample of the study

The participants of the study represented an intact group of 30 female Yemeni EFL learners joining second level at the Department of English, Sana'a University. The participants ranged in age from 21 to 24 years and all had an intermediate English proficiency level.

Data collection and analysis

This study adopted McKenzie's (1999) MI inventory that covered the eight multiple intelligences previously mentioned. Each of those intelligences was addressed by 10 statements. The participants were asked to put 1 in front of the statements that describe them well. The reliability of the questionnaire was calculated using Cronbach alpha and was found to be 0.95. The quantitative data was analyzed using a descriptive statistics.

RESULTS AND DISCUSSION

Based on the analysis, results of the present study are provided in Table (2).

Table 2. Multiple intelligences profile

Intelligence	Mean	Std. Deviation
Mathematical-logical intelligence	6.56	1.19
Visual-spatial intelligence	6.36	1.71
Interpersonal intelligence	5.50	1.47
Intrapersonal intelligence	5.30	1.57
Verbal- linguistic intelligence	5.23	1.79
Bodily-kinesthetic intelligence	4.23	1.47
Musical intelligence	3.93	1.43
Naturalist intelligence	3.13	.77

As presented in Table 2 above, the mean frequency of the participants' intelligences ranged from 3.13 to 6.56. The development level of the eight intelligences was interpreted adopting the evaluating scores by Özgen *et al.* (2011) in which 'high advanced level' is reached with score between 32-40, 'advanced level' is determined by score between 24-31, 'moderately advanced level' requires score between 16-23, 'slightly advanced level' is graded score between 8-15 and 'unadvanced level' includes score between 7-0. Based on the obtained scores, the participants had unadvanced level in the all eight domains of intelligences. Gardner (1993) indicated that intelligences can be developed to reach a higher level. A number of factors including education, culture, social environment, genetics (Gardner 1993, Tele 2000, Baum *et al.* 2005) could potentially be responsible for developing and declining individual's intelligences.

In comparing the mean scores among those intelligences, the highest score of the intelligences was mathematical- logical intelligence (M= 6.56). The strongest develop of that intelligence was anticipated as the activities of ordering and matching were fully covered in the learners' English school textbooks. The second dominant intelligence was visual-spatial intelligence. It seems that the English school textbooks also had a role in developing the participants' visual-spatial intelligence. They likely included activities addressed that intelligence. The results corroborate those results reported in previous research (Saricaoglu and Arikan 2009, Hanafiyeh 2013) which demonstrate that logical- mathematical and spatial-visual intelligences were the highest developed intelligence among EFL learners. However, intrapersonal intelligence was the highest developed intelligence among university Jordanian students as proved in Al-Faoury (2011).

Interpersonal and intrapersonal intelligences were the third and fourth common intelligences types respectively. The participants' relatively development of the two intelligences might be affected by their parents' style used to bring them up. Self- awareness, independence and high development of social skills are expected to be linked to parents' authoritative style in which children have effective communication with their parents and are allowed to make decisions and express their personal opinions (Al-Faoury 2011; Taghva *et al.*, 2013; Shalini and Balakrishna, 2013).

The verbal linguistic intelligence was the fourth in rank. Though studying English at school for six years and a year at the university, the participants' linguistic intelligence was not highly developed. The mean score of this intelligence was the lowest compared to the first three dominated intelligences. That could be ascribed to the English teaching instruction that emphasizes rote memorizing and inactive engagement of the learners. The bodily-kinesthetic intelligence was in the same order as the verbal linguistic (M= 4.23) with a less tendency variation. The time allocated for the class can be a reason that prevents integrating the bodily kinesthetic activities in the participants' classroom.

The two least dominant intelligences were music and naturalist intelligences. While class time constraints could justify the low level of having naturalist intelligence, culture had an effect on the less use of activities accommodating musical intelligence. In fact, the use of music is not valued in the Yemeni culture. This result was in line with the study of Akoura and Al-Hebaishi (2014) which highlighted that culture was an influential factor affecting the low development level of music intelligence among Saudi Arab learners.

Conclusion

The main objective of this study was to describe EFL university Yemeni learners' multiple intelligences level of development that would assist EFL teachers to design learning activities relating to the learners' needs and interests. Generally, the results of the study showed that EFL Yemeni students have a low level of multiple intelligence development. The degree of which the participants possessed the eight intelligences could be significantly attributed to various factors as the participants' educational, social and cultural environment. The findings in this study have

implication for teaching pedagogies, highlighting the importance of accommodating learners' different learning abilities in EFL classes. The result is anticipated to raise teachers' awareness of the necessity to cater for learning potential diversity; especially, the different ways learners use to show their understanding of knowledge. In addition, it highlights the need for designing flexible curriculum that addresses learners' different learning abilities. Curriculum developers have to make changes in traditional EFL text books and design MI based instructional curriculum that reflect learners' abilities and needs. The study is also of a great value to EFL learners in making them aware of their strength and weakness, thus helping them to overcome their problems in learning. However, the results of the study should be interpreted with caution due to the gender and the small number of the participants. Future research should increase the number of the participants and consider both males and females for the findings to be generalized. In addition, individual learning differences imply that a particular instruction will not be effective to all learners. Therefore, further research is still needed to examine how EFL learners multiple intelligences profile can determine the effectiveness of an instruction method.

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