

Relationship Between Iranian L2 Learners' Multiple Intelligences and Language Learning Strategies

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Abstract

L2 learners' multiple intelligences (MI) profile plays a central role in their performance on different aspects of language learning, one of which is the use of language learning strategies (LLSs). Gaining insights into the relationship between MI and LLSs makes L2 teachers better understand their learners' strengths and weaknesses in the use of such strategies and lets them guide the learners better in this regard. This study was an attempt to explore the (possible) relationship between Iranian L2 learners' MI profile and their use of LLSs. The participants were 30 female learners, aged 13-25, studying in a language institute in Iran. To measure their MI scores, McKenzie's MI Inventory (1999) was used, and their learning strategy use was examined through the Strategy Inventory for Language Learning (SILL). To find the (possible) relationship between the participants' overall MI scores and their use of strategies as well as the (possible) relation between individual intelligences and strategy use, Pearson product-moment correlation was conducted. The results revealed a strong positive relation between the participants' MI scores and their use of LLSs. Also, strong positive correlations were found between verbal intelligence and memory and cognitive learning strategies, intrapersonal intelligence and memory learning strategies, and visual intelligence and cognitive learning strategies. The findings have implications for L2 pedagogy. Identifying L2 learners' dominant intelligences and, accordingly, their strengths and weaknesses in using LLSs as well as raising their awareness, L2 teachers can increase L2 learners' strengths and minimize their weaknesses in using LLSs and improve the efficacy of teaching and learning LLSs.

Keywords: Individual differences; Language learning; Multiple intelligences (MI); Language learning strategies (LLSs)

1. Introduction

Individual differences can lead to different performances in many aspects, including learning an L2. Cognitive psychologists and educators have long been eager to understand individual differences in cognition and their effect(s) on learning and instruction (Altun & Kakan, 2006). A large body of research has explored the interplay of individual characteristics and language learning (e.g., Alptekin & Atkan, 1990; Bongaerts, van Summeren, Planken, & Schils, 1997; Ellis, 1989; Dörnyei, 2005; Jamieson, 1992; Johnson, Prior, & Artuso, 2000; Kok, 2010; Milovanov, Pietila, Tervaniemi, & Esquef, 2009; Oflaz, 2011; Slevc & Miyake, 2006). Amongst the most popular factors researched are age, sex, aptitude, hemispheric dominance, learning strategies, motivation, anxiety, extroversion, field (in)dependence, impulsivity/reflectivity, ambiguity tolerance, and intelligence. Among the mentioned individual characteristics, the notion of *intelligence* has a substantial role in describing our cognitive differences and can influence language learning in accordance with other cognitive characteristics.

Considering a historical perspective, different theories have been proposed to define the concept of intelligence, from which Gardner's theory of multiple intelligences (MI; 1983) has received so much attention from the contemporary researchers and educators. Gardner defined intelligence as a composite of different abilities or aptitudes and proposed that intelligence is not a single universal unchangeable entity; rather, it is made up of seven subcategories that every individual possesses to different extents and can be nurtured and developed through education.

Having primarily proposed seven intelligences, that is, verbal-linguistic, logical-mathematical, musical, spatial, bodily-kinesthetic, interpersonal, and intrapersonal intelligences (1983), Gardner added a new type of intelligence to the original list in 1999 (i.e., naturalistic intelligence) and suggested the possibility of existential intelligence. A general description of these intelligences is presented in Table 1:

Table 1. *Gardner's Proposed Intelligences*

Intelligence	Description
Linguistic	The sensitivity to the sounds, rhythms, and meanings of words, sensitivity to the different functions of language
Logical-Mathematical	The sensitivity and capacity to discern, logical mathematical or numerical patterns, the ability to handle long chains of reasoning
Musical	The capacity to create, perform, and appreciate music

Spatial	The capacity to form mental imagery of the world—the large world of the aviator or navigator, or the more local world of the chess player or the surgeon—and to manipulate those mental images.
Bodily-Kinesthetic	The ability to control one's body movements handle objects skillfully.
Interpersonal	The understanding of other persons—how to interact with them, how to motivate them, and how to understand their personalities
Intrapersonal	The capacity to understand oneself—one's strengths, weaknesses, desires, fears, and intelligences, access to one's emotional life
Naturalist	The capacity to make consequential distinctions in nature, between one plant and another, among animals, clouds, mountains, and the like. Scientist Charles Darwin can be referred to as one who had naturalist intelligence in abundance
Existential	Intelligence of big questions, for example, when children ask about the size of the universe, when adults ponder death, love, conflict, the future of the planet, they are engaging in existential issues.

Note: From “Multiple Intelligences After Twenty Years” by H. Gardner, 2003, *American Educational Research Association, Chicago, Illinois, 21* & “Multiple Intelligences Go to School: Educational Implications of the Theory of Multiple Intelligences” by H. Gardner and T. Hatch, 1990, *American Educational Research Association, 18*(8), p. 6.

As mentioned before, L2 learners' MI profile can play a central role in their performances on different aspects of language learning. During recent years, various studies have been conducted to explore the issue (e.g., Chen, 2005; Haley, 2001; Sahatsathatsana, 2010; Shore, 2001; Talbot, 2004). Considering the valuable role of L2 learners' MI profile in language learning, the importance of MI-based instruction and the beneficial role of language learning strategies (LLSs) in language learning as “tools for active, self-directed involvement” (Oxford, 1990a, p. 1), the present study has focused on LLSs from amongst different issues in language learning. In fact, LLSs are “specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations” (Oxford, 1990a, p. 8). Oxford and Nyikos (1989) refer to some benefits of LLSs to language learning. According to them, using appropriate learning strategies makes L2 learners take responsibility for their own learning by enhancing learner autonomy, independence, and self-direction. Additionally, as cognitive psychology shows, learning strategies “help learners assimilate new information into their existing mental structures or schemata” (p. 291). Moreover, learning strategies, unlike most other individual characteristics (e.g., aptitude, motivation, personality, and general cognitive style), are readily teachable.

Different classifications have been proposed for LLSs (e.g., O'Malley, Chamot, Stewner-Manzares, Kupper, & Russo, 1985; Oxford, 1990a; Stern, 1992). This study has used Oxford's categorization (1990a) considered as "the most comprehensive classification of learning strategies" (Ellis, 1994, p. 539). Oxford (1990a) divides LLSs into two major categories of direct and indirect strategies. Direct strategies directly involve the L2, whereas indirect strategies "do not directly involve the subject matter itself, but are essential to language learning nonetheless" (Oxford, 1990b, p. 71). The first category is divided into memory, cognitive, compensation strategies, and the latter into metacognitive, affective, and social strategies. Memory strategies are those that help to remember information via making connections between, for example, grouping and using keywords. Cognitive strategies aim at processing information and structuring it, for example, analyzing and summarizing. Compensation strategies are used to compensate for knowledge gaps, for example, guessing and gesturing. Metacognitive strategies are those that help learners to manage the learning process and deal with the task of, for example, planning, identifying, and selecting resources. Affective strategies are those that let learners identify their affective traits and know how to manage them, for instance, reducing anxiety and encouraging one's self. And, social strategies are those used to learn from or with others like asking for cooperation and working with peers (Oxford, 1990a). Assuming that L2 learners' MI profiles can affect their use of LLSs, this study aimed at investigating the (possible) relationship between MI and the use of LLSs among Iranian L2 learners.

2. Literature Review

The notion of intelligence has been long fascinating to scholars and educators. The traditional popular conception of intelligence was largely based upon a monolithic view of intelligence. As Mensh and Mensh (1991) have mentioned, the first theoretical attempt to describe intelligence refers to Spearman (1904). Spearman, famous for his *g* model (*g* for general), believed in the existence of a "common underlying ability or force serving as the basis for all our mental/intellectual functioning" (Akbari & Hosseini, 2008, p. 143). According to him, the presence of *g* as a kind of brain power or mental energy makes a person intelligent (Howe, 1997). Similarly, Binet and Simon (1905), famous for their pioneering IQ test, designed their test based upon a unitary notion of intelligence taking intelligence into account as a single unchanged capacity.

Binet and Simon's IQ test, as well as early IQ tests originating from that, considered intelligence to be wholly made up of linguistic and logical-mathematical abilities (Gardner, 1999). This unitary conception of intelligence remained fashionable and widely accepted among theorists and educators for a long period of time. However, over the years, some theorists (e.g., Cattell, 1971; Gardner, 1983;

Guilford, 1967; Sternberg, 1985) have challenged this view of intelligence in spite of its global popularity. Probably, the most effective challenge to the mentioned view has been posed when Gardner proposed his alternative theory in 1983.

Gardner (2005) cogently argued that the traditional view of intelligence is not tenable, and that the “skills and capacities of painters, writers, dancers, and artists are as fully cognitive as those of scientists and physicians” (Mohammadzadeh & Jafarigohar, 2012, p. 27), following detailed enquiries in different domains put forward his theory of MI in his substantial book *Frames of Mind: The Theory of Multiple Intelligences* (1983).

Gardner (1983) reconceptualized the notion of intelligence as a composite of different abilities or aptitudes, and proposed that intelligence is not a single universal unchangeable entity; rather, it is made up of at some subcategories that every individual possesses to different extents and can be nurtured and developed through education. He believed that people have different human faculties and their strengths (or weaknesses) in one intellectual sphere does not indicate whether they are strong or weak in some other intellectual domain (Gardner, 2005). Attending to the social context, Gardner (1983) defined intelligence as “the ability to solve problems or to create products that are valued within one or more cultural settings” (p. 10), and mentioned that multiple abilities can be affected by cultural and biological factors.

Primarily, Gardner proposed seven intelligences in 1983: linguistic, logical-mathematical, musical, spatial, bodily-kinesthetic, interpersonal, and intrapersonal. To arrive at the above list of intelligences, he investigated the literature in many areas, such as “the development of cognitive capacities in normal individuals, the breakdown of cognitive capacities under various kinds of organic pathology, and the results of factor-analytic studies of human cognitive capacities and the outcome of studies of transfer and generalization” (Gardner & Hatch, 1989, p. 5). Following his vast literature review, he disregarded the abilities that appeared only once or twice or were reconfigured differently in different sources, and kept the capacities that turned up repeatedly in diverse literatures to reach the seven intelligences (Gardner & Hatch, 1989).

Later on in 1999 in his influential book *Intelligence Reframed: Multiple Intelligences for the 21st Century*, Gardner proposed the existence of naturalist intelligence as the eighth intelligence and referred to the probability of the existence of existential intelligence. It is worth mentioning that Gardner does not consider existential intelligence as an official intelligence like the other ones. He has merely ruminated about the possibility of its existence (personal communication). His hesitation stems from his “uncertainty about whether certain regions of the brain are dedicated to the contemplation of issues that are too vast or too infinitesimal to be perceived” (Gardner, 2005). In his later definition of intelligence (1999), Gardner

regarded intelligence as the bio-psychological potential to process information in certain ways which allows the individual to solve problems and fashion products that are valuable within a cultural context. Gardner (2005) clarifies that his goal is not proving the existence of eight or nine intelligences; rather, he is trying to make the case that we have a multiplicity of intelligences that are relatively independent of each other.

Potentially, MI can have practical applications in L2 education. The field of SLA has devoted considerable attention to research in this domain (e.g., Akbari & Hosseini, 2008; Hajhashemi, Parasteh Ghombavani, & Yazdi Amirkhiz, 2011; Mirzaei, Rahimi Domakani, & Heidari, in press; Razmjoo, 2008; Richards & Rodgers, 2001; Yeganehfar, 2005).

Numerous scholars have underscored the importance of MI in SLA and reminded its implications for foreign language learning (e.g., Armstrong, 1994; Azar, 2006; Barrington, 2004; Buchen, 2006; Campbell, Campbell, & Dickinson, 2004; Chan, 2006; Christian, 2004; Christian & Kennedy, 2004; Fogarty & Stoehr, 2007; Hall, 2004; Tracy & Richery, 2007; Viens & Kallenbach, 2004). Richards and Rodgers (2001) refer to MI as a theory attended to not only in public instruction but also in teaching English, whose application in English teaching is recent and new. According to Kirkgöz (2010), MI has had a considerable influence on both the design of foreign language curriculum and the design of textbook materials. In addition, it is mentioned that MI can be a new and effective method for presenting different teaching strategies and can improve L2 learners' achievements (Barrington, 2004; Cohen & Weaver, 2004; Curtin, 2005; Kornhaber, Fierros, & Veenema, 2004; Mitchel & Myles, 2006; Oxford, Cho, Leung, & Kim 2004; Oxford & lee, 2008).

Regarding MI pedagogical application, Sinder (2001) mentions that MI-based materials have a strong potential to improve foreign language instruction because the theory engages the learners' innate abilities. Additionally, Soleimani, Moinzadeh, Kassaian, and Ketabi (2012) claim that applying the MI theory, EFL teachers can address the great diversity in the learner, develop the learner's intelligences, and "create an individualized learning environment" (Christian, 1996, p. 10). Furthermore, Armstrong (2007) as well as Fogarty and Stoehr (2007) believe that detecting language learning problems needs presenting solutions such as using MI as an instructional plan.

During recent years, many SLA researchers have undertaken research on the relationship between MI and different aspects of language learning. Carrying out research among university EFL learners, Shore (2001) investigated the correlation between the use of intelligences in lessons, learners' strength in the corresponding intelligences, and self-efficacy in reading, writing, or speaking. The results revealed highly significant positive correlations between reading self-efficacy and logical

mathematical and interpersonal intelligences, strong positive correlations between writing self-efficacy and interpersonal, intrapersonal, bodily-kinesthetic and linguistic intelligences, and positive correlations between speaking self-efficacy and interpersonal and visual-spatial intelligences.

In 2001, Haley carried out a pilot study to identify, document, and promote effective applications of the MI theory in L2 classrooms. Having collected the data about the students' MI profiles, the teachers participating in the study modified their lessons in selected classes to activate all the intelligences. The results indicated that the experimental group showed keen interest in MI concepts and the increased variety of instructional strategies in their classrooms. However, the experimental and control groups' classroom performance was not drastically different.

Chen (2005) investigated the effect of considering cooperative learning principles and the MI theory pedagogical applications on L2 learners' language proficiency. The results revealed that the experimental group who was taught using the ideas based on MI and cooperative learning outperformed the group based on cooperative learning and the control group on the four language skills.

In 2009, Saricaoglu and Arikan conducted a study to investigate the relationship between L2 learners' MI profiles and their performance on grammar, listening, and writing. The results indicated significant correlations between bodily-kinesthetic, spatial, and intrapersonal intelligences and the L2 learners' grammar performance as well as musical intelligence and writing performance. None of the intelligences correlated significantly with listening performance.

In 2010, having developed an English conversation syllabus based upon the MI theory, Sahatsathatsana made a comparison between the English proficiency of the L2 learners taught through the MI-based syllabus and the L2 learners taught using a traditional method. He found that the experimental group's performance was significantly better than that of the control group.

Razmjoo (2008) studied the strength of the relationship between language proficiency and nine types of intelligences. He concluded that no significant relationship exists between language proficiency and MI as a whole and each of the nine intelligence types in particular. Additionally, the results indicated that none of the nine types could be considered as the predictor for language proficiency, and there was no significant difference between the males and females regarding the nine intelligences.

Additionally, Yeganehfar (2005) investigated the relationship between MI and the writing skill. Interestingly, the results showed a significant correlation between the participants' writing skill and their spatial and linguistic intelligences.

Similarly, Marefat (2007) made an attempt to examine the relationship between L2 learners' MI profile and their writing skill. She concluded that kinesthetic, existential, and interpersonal intelligences made the biggest contribution to predicting the writing scores.

In another study by Rahimi and Qannadzadeh (2010), the relationship between quantitative usage of logical connectors in Iranians' EFL essay writing and their logical/mathematical and linguistic intelligences was examined. The results showed that the EFL learners with higher logical/mathematical intelligence tended to use more logical connectors in their writings. Surprisingly, it was revealed that linguistic intelligence was less significant to the rate of quantitative uses of logical connectors in the EFL essay writing than logical intelligence.

Akbari and Hosseini (2008) investigated the existence of possible relationships between the use of LLSs and MI. The results indicated a significant moderate positive correlation between MI and LLSs. Furthermore, significant positive correlations were found between MI and all strategy types. Additionally, Hajhashemi et al. (2011) examined the relation between MI score and LLSs use. The researchers found a significant low positive correlation between MI and Strategy Inventory for Language Learning (SILL). Additionally, they found a significant strong positive correlation between MI and the cognitive, compensation, and metacognitive strategies.

The current study, exploring the relationship between L2 learners' MI profiles and their using LLSs, has a similar purpose to the last two mentioned studies, the results of which are partly inconsistent. Controversial results might be due to different extraneous variables, such as age, gender, proficiency level, and sociocultural setting. In an attempt to quell controversies and yield clear insight into the issue (considering the valuable role of L2 learners' MI profile in language learning, the importance of MI-based instruction, and the beneficial role of using LLSs in language pedagogy), this study is an attempt to seek answers for the following questions:

1. Is there any relationship between L2 learners' overall MI scores and using LLSs?
2. Is there any relationship between L2 learners' overall MI scores and different LLSs use?
3. Is there any relationship between L2 learners' different intelligences' scores and overall LLSs use?
4. Is there any relationship between L2 learners' different intelligences' scores and different LLSs use?

3. Methodology

3.1 Participants

Thirty female L2 learners, aged 13-25, participated in the study. They were studying English as a foreign language in a language institute in Fars Province of Iran. They were all native speakers of Persian and had already studied English as a part of their curricula in their secondary school or high school. To make sure that they were homogenous in terms of English proficiency, the Oxford placement Test (OPT) was administered to the participants. They all managed to score higher than the 50% of the total possible score.

3.2 Instruments

To make sure that the participants were homogenous in terms of their proficiency, the OPT with reasonable measures of validity and reliability was administered to them. We planned to exclude those who would score lower than the 50% of the total possible score from the study.

To determine the participants' MI scores, McKenzie's MI Inventory (1999) was administered. The questionnaire consists of nine 10-item sections measuring nine types of intelligences: natural, musical, logical/mathematical, intrapersonal, interpersonal, bodily/kinesthetic, linguistic, existential, and spatial/visual intelligences. The reliability of the questionnaire estimated through the Cronbach's alpha was .69.

To examine the participants' LLSs use, Strategy Inventory for Language Learning (SILL; Oxford, 1990a) was used. The Cronbach's alpha of the scale tuned out to be .75.

3.3 Procedure

Firstly, the OPT was administered to check the participants' homogeneity. All the 30 participants scored higher than the 50% of the total possible score.

Second, McKenzie's MI Inventory (1999) was used to determine the participants' MI scores. To administer the questionnaire, having gathered the participants in a classroom and provided them with the questionnaire, one of the researchers read each item and elaborated on its meaning in English to make sure that the participants got the exact meaning of each item. Additionally, after the explanation of every item, she asked whether the meaning was clear and explained individually to those who faced ambiguity.

Then, to examine the participants' LLSs use, SILL was administered. Finally, SPSS (version 17) was used to conduct the correlational analysis to address the research questions.

4. Results

The descriptive results of McKenzie's MI Inventory (1999) and SILL are presented below:

Table 2. *Descriptive Statistics of McKenzie's MI Inventory and SILL*

	<i>N</i>	Mean	Std. Deviation	Minimum	Maximum
MI	30	61.3333	8.18886	45.00	77.00
LLSs	30	168.0333	17.94337	129.00	203.00

To explore the first research question concerning the (possible) relationship between the participants' overall MI score and their LLSs use, Pearson product-moment correlation was obtained between the MI scores and the participants' LLSs use. As depicted in Table 3, the results revealed a significant and strong positive correlation between the variables:

Table 3. *Correlation Between MI and LLSs*

Variables	LLSs
MI	.735*

*Correlation is significant at the 0.01 level (2-tailed)

To address the second research question dealing with the (possible) relationship between the overall MI scores and the different LLSs use, Pearson product-moment correlation was conducted. The results revealed significant and strong positive correlations between the MI scores and the three learning strategies, including memory, cognitive, and metacognitive strategies. Additionally, a significant moderate positive correlation was found between the overall MI score and the compensation strategy (see Table 4):

Table 4. *Correlation Between MI and the Different LLSs*

Variables	Memory Strategy	Cognitive Strategy	Compensation Strategy	Metacognitive Strategy	Affective Strategy	Social Strategy
MI	.666**	.675**	.395*	.559**	.207	.307

*Correlation is significant at 0.05 level (2-tailed).

**Correlation is significant at 0.01 level (2-tailed)

To answer the third research question concerning the (possible) relationship between the scores of different intelligences and the overall LLSs use scores, Pearson

product-moment correlation was again conducted. The results revealed significant strong positive correlations between the overall LLSs use scores and the three verbal, intrapersonal, and visual intelligences, as well as a significant moderate positive correlation between kinesthetic intelligence and using LLSs:

Table 5. *Correlations Between LLSs and Different Intelligences*

Variables	Naturalist	Musical	Logical	Existential	Intrapersonal	Kinesthetic	Verbal	Intrapersonal	Visual
LLSs	.318	.289	.288	.332	.213	.453*	.565**	.532**	.532**
	.087	.121	.123	.073	.259	.012	.001	.002	.002

*Correlation is significant at 0.05 level (2-tailed).

**Correlation is significant at 0.01 level (2-tailed).

Finally, investigating the fourth research question dealing with the (possible) relationship among the different intelligences and LLSs, the results of the Pearson product-moment correlation showed a significant and strong positive correlation between linguistic intelligence and both memory and cognitive strategies, intrapersonal intelligence and both memory and metacognitive strategies, and spatial intelligence and cognitive and metacognitive strategies:

Table 6. *Correlations Between the Different Intelligences and LLSs*

Variable	Memory Strategy	Cognitive Strategy	Compensation Strategy	Metacognitive Strategy	Affective Strategy	Social Strategy
Naturalist	.229	.394*	.179	.206	.148	.021
Musical	.293	.207	.223	.226	.164	-.004
Logical	.288	.298	.120	.362*	-.185	.140
Existential	.305	.448*	.118	.131	-.185	.140
Intrapersonal	.372*	-.026	.054	.078	.257	.218
Kinesthetic	.278	.444*	.332	.442*	-.022	.239
Linguistic	.544**	.541**	.202	.171	.443*	.361
Intrapersonal	.596**	.385*	.353	.495**	.022	.179
Spatial	.379*	.611**	.326	.477**	.022	.179

*Correlation is significant at 0.05 level (2-tailed).

**Correlation is significant at 0.01 level (2-tailed).

5. Discussion and Conclusion

In line with previous studies exploring the relationship between L2 learners' MI scores and their use of LLSs (i.e., Akbari & Hosseini, 2008; Hajhashemi, et al., 2011), the results in the current study revealed that the participants' overall MI scores correlated significantly with their use of LLSs. According to Akbari and Hosseini (2008), such a relationship is expected due to the fact that some aspects of MI and language use are consistent with each other, and both intelligence and strategy use involve a general problem-solving ability as well. The fact that the current research backs up the previous results underscores the importance of paying attention to L2 learners' MI profiles in teaching LLSs.

Regarding the correlations between the learners' overall MI scores and their use of different strategies, the findings here indicating significant positive relationships between the MI scores and cognitive, compensation, and metacognitive strategies support the results of the two previous studies in this domain. However, the findings on the relationships between the MI scores and memory, social, and affective strategies are contradictory in the studies. In addition, considering the relationships between the different intelligences of L2 learners and their use of different LLSs, some of the current results support the previous studies showing significant positive correlations between naturalist intelligence and cognitive strategies, logical intelligence and metacognitive strategies, linguistic intelligence and cognitive and affective strategies, intrapersonal intelligence and cognitive and metacognitive strategies, and finally spatial intelligence and cognitive and metacognitive strategies. However, the other findings of the three studies are not quite consistent. The inconsistencies reflect the need to conduct more studies with larger samples, controlling the effects of extraneous variables like gender, proficiency level and sociocultural setting to yield more exact results. Meanwhile, the consistent findings have important implications for L2 teaching and learning. Identifying L2 learners' dominant intelligences as well as finding their strengths and weaknesses in utilizing LLSs make it possible for L2 teachers to adopt a more efficient approach toward teaching LLSs. Moreover, raising L2 learners' awareness toward their dominant intelligences and their strengths and weaknesses in using LLSs in line with informing them on which strategies they should practice more and letting them know that individual intelligences can be nurtured and developed and L2 teachers can facilitate and promote L2 learners' learning. Such considerations allow L2 teachers to better guide their learners in using LLSs and to make them better use their learning opportunities.

Additionally, bearing in mind the role of L2 learners' MI profile as an individual difference in language learning, L2 teachers can devise lesson plans advantageous to all L2 learners with different cognitive profiles—not only a limited

group. Taking into account the nine intelligences, they should modify their instruction in a way that all the intelligences are addressed to involve all L2 learners with different MI profiles. They can “prepare student-centered activities that cater to all students’ intelligences” (Hajhashemi, et al., 2011, p. 216) to provide variously intelligent learners with equal learning opportunities. After all, “balanced instructional presentations that encourage addressing multiple intelligences benefit all learners and expose them to the appropriate means through which they can strengthen their underutilized intelligences” (Haley, 2004, p. 163). Taking such perspectives into instruction prevents L2 education from suiting only certain cognitive profiles and can improve remarkably the efficacy of pedagogical programs.

Furthermore, as mentioned before, intelligence is modifiable. Human beings are born with a set of genetically predisposed intelligences which develop later in life, depending on familial, social, cultural, and educational experiences (Stanciu, Orban, & Bocos, 2011). Accordingly, the teaching and learning process plays a significant role in developing, nurturing, and optimizing L2 learners’ MI profiles. In other words, every learner has the capacity to display all the intelligences with different degrees, and “the challenge in education is for teachers to create learning environments that foster the development of all the intelligences” (Haley, 2004, p. 163). In the same line, Gardner (1987) suggests that L2 teachers should identify and nurture all the varied human intelligences and all the combinations of intelligences. On the whole, approaching L2 instruction with MI considerations paves the way for more successful education.

In an attempt to investigate the (possible) relationships between L2 learners MI profiles and their use of LLSs, this study revealed the existence of such relationships and clarified the direction, strength, and significance of such relationships. The results suggest the need to attend to L2 learners’ MI profiles in LLSs instruction and to take individual differences into account.

The findings of the study, however, should be treated with caution due to the small size of the sample. We hope that this study is replicated with larger samples to find the exact patterns of relationships and with male L2 learners as well as L2 learners from different L1 backgrounds to find the effect of gender and sociocultural factors on such relationships. Additionally, considering the possible effects of individual differences on L2 learners’ performance and the importance of considering such effects in teaching, testing, and learning, it is suggested to explore the influence of other individual differences on LLSs use as well as other aspects of L2 learning.

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