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Carrera de Lengua y Literatura Inglesa

"Learning Styles and Multiple Intelligences: Their Contribution to the Learning Process of English as a Foreign Language"

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Resumen

Esta síntesis de investigación tiene como objetivo determinar la importancia del uso de inteligencias múltiples y estilos de aprendizaje en la enseñanza del inglés como lengua extranjera a través de los indicadores de rendimiento de los estudiantes que aprenden este idioma. En base a los criterios de inclusión y exclusión de esta síntesis, la autora seleccionó 15 artículos primarios para su respectivo análisis, los mismos que han empleado varios instrumentos de recolección de información y han tenido lugar en diversos niveles y contextos. Existe una mínima cantidad de artículos de investigación centrados en la relación de los enfoques de instrucción basados en inteligencias múltiples y estilos de aprendizaje. No obstante, los hallazgos de los estudios revisados, han proporcionado evidencia sustancial, la cual revela que las teorías de las inteligencias múltiples y los estilos de aprendizaje contribuyen positivamente al rendimiento académico y al aprendizaje significativo del inglés como lengua extranjera.

Palabras clave: Inteligencias múltiples. Estilos de aprendizaje. Proceso de aprendizaje. Estrategias de enseñanza. Indicadores de logro. Motivación.

Abstract

This research synthesis aims to determine the relevance of enhancing multiple intelligences and learning styles in the English as a Foreign Language (EFL) classroom through the achievement of students who learn English as a foreign language. Based on the inclusive and exclusive criteria of this synthesis, the author selected 15 primary studies for the analysis, which have employed diverse data collection instruments and have taken place at distinct levels and contexts. A minimal amount of research focused on the relationship of instructional approaches predicated on multiple intelligences and learning styles was analyzed. Nonetheless, findings of the study have provided substantial evidence which reveals that the theories of multiple intelligences and learning styles positively contribute to the learning and academic achievement of English in an EFL classroom instruction.

Keywords: Multiple intelligences. Learning styles. Learning process. Teaching strategies. Achievement indicators. Motivation.

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DEDICATION

This work is dedicated to God, who has given me the strength to overcome difficult situations I have been through. To my family, who have always been there to encourage me to achieve this and every goal so far. To my best friend, Paola Torres, who has always strengthened and encouraged me in my life.

Introduction

Howard Gardner (1985), in his book, "Frames of Mind," establishes that all people are considered intelligent in different ways. Nevertheless, the awareness of Gardner's theory and Learning Styles (LS) has several implications for English teachers. According to Berman (2004), if educators follow a teaching methodology such as the PPP model (presentation, controlled practice, and production), none of the theories will reach every student in the group since all groups are heterogeneous. Therefore, learners need teachers to take their learning styles and intelligences into account (Berman, 2004).

Gardner (1993), in his book, "Multiple Intelligences," mentions that all learners are different, and they are gifted with diverse mindsets that they use in all their daily activities. According to language pedagogues, these learner strategies are essential in deciding the success or failure of language learning (Nyikos & Oxford, 1993; Chamot, 2004; DeCapua & Wintergerst, 2005). Additionally, Calle, Argudo, Cabrera, Calle, and León (2015) make an analysis of the learning and teaching process in Cuenca, in which the results reveal that the low performance of students in an EFL classroom is negatively affected by the use of traditional teaching strategies, such as teacher-centered and the lack of interaction among students in the target language. It acknowledges that English teachers do not use strategies that promote communication despite the mandatory nature of the communicative curriculum imposed by the Ministry of Education (Calle et al., 2015).

As cited by the authors, the model of Ecuadorian education is inspired by principles of the traditional school, with a strong behaviorism, which is also used in English teaching, putting into practice what is termed "frontal teaching" or "chalk and talk" (Calle et al., 2015). This way

of teaching has not been successful for most Ecuadorian students. The proof is that, according to the last study carried on by Education First (Verbrachte, 2020), Ecuadorians as a group, have a very poor level of English proficiency. Among 100 countries, Ecuador was placed 93rd in the advancement and comprehension of the foreign language and the last one among 19 Latin American countries.

As a good alternative to change this unfortunate situation, Howard Gardner (2004), who developed the theory of MI, proposes 12 different intelligences to account for a broader range of human potential in children and adults. Moreover, Rita Dunn and Shirley Griggs (2003) identify 21 learning style elements as a preferred way of using one's abilities. According to Reid (1995), individuals have different Learning Styles (natural, habitual and preferred ways of absorbing, processing, and retaining new information and skills). Consequently, when teachers accommodate their students' LS and MI, the content of the class is upgraded and more valuable because learners become potentially more receptive to the teaching strategies and modes of presentations (Christison & Bassano, 2005; Gardner, 2003).

In accordance with the aforementioned authors and theories, LS and MI are two student–centered theories that implicate changes in traditional teaching methods in the classroom, being applied with various types of learners (Dunn, Denig, & Lovelace, 2001). Therefore, it is crucial to provide EFL and ESL teachers with a correct idea of the impact of those theories in EFL learner's performance in the four macro-English skills and their language proficiency in general.

Thus, this research synthesis aims to gather, synthesize, and analyze data from 15 primary studies in order to examine the contribution and effects of LS and MI on EFL students. Furthermore, this study addresses the following research questions: 1) What is the

contribution of LS and MI theories applied to the EFL learning process, as reported by literature?

2) What is the influence of MI and LS theories on EFL academic performance, as reported by literature?

This research synthesis comprises six chapters. The first chapter provides a description of the research, as it addresses the background, problem statement, rationale, research questions, and objectives. In the second chapter, the theoretical framework presents theories and concepts necessary for the understanding of the study. In the third chapter, the literature review manufactures a synthesis of the findings of the 15 primary research studies. The fourth chapter establishes the methodology used in the research, comprising the inclusion and exclusion criteria designated. In the fifth chapter, the findings of the research studies are analyzed and categorized. Lastly, the sixth chapter encompasses the conclusions and recommendations.

CHAPTER I

Introductory Chapter

1.1 Background

Currently, Ecuadorian students learn English as a Foreign Language mandatorily since it is a requirement of their curriculum. Students must attain the English proficiency level B1.2 set by the Common European Framework of Reference for Languages (CEFR) according to what was established by the Ministry of Education (2016).

Indeed, English as a Foreign Language is taught as a stipulation in order to increase the knowledge and skills of the Ecuadorian population. Certainly, traditionally teaching English in this country has been considered a "frontal teaching" or "chalk and talk" (Goodlad, 1984), which causes students to be engaged in learning activities just to avoid punishment or meet the demand.

This process, also called teacher-centered, has not been successful for Ecuadorian students. The proof is that, according to the latest EPI-EF Proficiency Index (2020), one of the most used global indices to rate the level of English proficiency, Ecuador barely obtained 46.57 points, which is equivalent to an A1 level according to the CEFR, placing it as the worst level of English proficiency in Latin America.

This reflects the result of a conservative learning process that is still in force today, despite the fact that since the last century, Dr. Howard Gardner (1985) introduced his concept of intelligences based on his Theory of Multiple Intelligences (MI). Since then, different studies have been carried out on the impact that this theory has had on education.

Additionally, research in Linguistics remains limited and is considered an area of great need in Ecuador. Hence, it is essential for EFL/ESL students and educators to consider multiple

intelligences as part of the teacher-student relationship since foreign language acquisition takes place in a more constructivist environment, leaving the traditional way of learning behind. Lastly, it is also advised that twenty-first century students must develop more autonomous learning skills and critical thinking. To achieve that goal, it is paramount to include new tools, theories, methodologies, and techniques in the Ecuadorian classrooms.

1.2 Problem Statement

In Ecuador, EFL has become a remarkable academic standard; therefore, it has been included in the curriculum since the government of Galo Plaza Lasso in the fifties (Rosero, 2014). However, the traditional model still persists in Ecuador, and there is no adequate pedagogical preparation of educators who teach English, as El Universo (2010) points out.

Indeed, the main problem in Ecuadorian present-day education and the basis for this study is the use of traditional teaching strategies that do not take into account the essential learners' features at the time of acquiring knowledge. EFL teachers in classrooms neglect the need of refining their teaching tactics since they are unaware of their students' prevailing intelligences and learning styles (Tawalbeh, 2016). This issue makes learning a foreign language more difficult. According to Cárdenas-Sanchez, Ochoa-Jarrn, and Morales-Rodas (2020), students must be part of a creative learning program that provides them with enough motivation through multiple strategies, activities, and techniques which could assist students in their learning process based on their differences.

As reported by Rebecca Finley (2000), in order to be successful educators, teachers must be aware of their learners' multiple intelligences and learning styles. Furthermore, they should know about effective ways of understanding their learners' multiple intelligences and personality

patterns. As a result, it is critical to use a variety of techniques in the classroom that cater to these individual variations. This perspective allows students' underdeveloped talents to flourish, making them capable of building their knowledge throughout time.

1.3 Rationale

Nowadays, the paradigm that only the students with outstanding grades are intelligent and the others are not is still maintained in many educational institutions. In addition, classes are taught in a traditional or rote school style, and the teaching programs are only based on linguistic and mathematical intelligences, giving minimal importance to the others. Furthermore, the low quantitative results in the students' EFL academic performance causes lack of motivation and disinterest in the subject.

Although the different learning styles and Gardner's multiple intelligence theories are different concepts, they are really connected, and they can be valuable in the learning process and draw students back into learning. Applying different educational strategies gives each of the diverse learners a chance to succeed at the EFL learning process (Madkour & Mohamed, 2016).

In view of this situation, this research synthesis aims at analyzing the contribution of Multiple Intelligences and Learning Styles in the learning process of English as a Foreign Language, according to empirical evidence. Moreover, the author has decided to work on this research synthesis since nowadays, the phrase *learning how to learn* has been mentioned with an analysis of accurate ways of learning and teaching methodologies based on personalities or mental abilities that could be different among students.

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1.4 Research Questions

After reviewing relevant information in the given field, the following questions have arisen:

1. What is the contribution of LS and MI theories applied to the EFL learning process, as reported by literature?

2. What is the influence of MI and LS theories on EFL academic performance, as reported by literature?

1.5 General Objectives

To analyze the contribution of Multiple Intelligences and Learning Styles to EFL classrooms, according to the existing empirical evidence.

1.6 Specific Objectives

- To describe the benefits of taking into account Multiple Intelligences and Learning Styles in the EFL learning process, as reported in the existing literature.

- To identify to what extent Multiple Intelligences and Learning Styles influence EFL students' academic performance, according to what is reported in the pertinent literature.

CHAPTER II

Theoretical Framework

2.1 Introduction

This chapter addresses theories, concepts, and perspectives compulsory to understand what Multiple Intelligences and Learning Styles are and how they might contribute to the EFL learners' performance. Consequently, this chapter is divided into three sections: (a) Multiple Intelligences and Learning Styles: types and definitions; (b) The application of MI and LS into the EFL classrooms: Advantages and Disadvantages; (c) Motivation and its influence in the learning process.

2.2 English as Foreign Language (EFL) and English as Second Language (ESL)

Making a distinction between EFL and ESL is significant so that readers may understand how English is taught in diverse situations and contexts. English as a foreign language (EFL), on the one hand, refers to the English language when it is utilized for specific objectives such as tourism, conversation with native English speakers, reading foreign literature, journals, and so on (Peng, 2019). ESL, on the other hand, stands for English as a Second Language, which is a speech that serves the same purpose as the mother tongue (Peng, 2019), and is utilized as a necessary and formal tool for communication (Iwai, 2011).

Furthermore, due to their varied backgrounds and the context in which the language is taught, EFL and ESL students do not acquire English in the same way. ESL learners study English in a situation where it is a necessary mode of communication, and they have more opportunity to practice it outside the classroom as it is used on a regular basis. EFL students, on the contrary, learn the language in non-native English-speaking nations, where they may not

have had the same extensive exposure to the language as ESL students may have, and can only practice and utilize it in their classrooms (Yu Shanzhi, 2002). Thus, different approaches with their own methods, procedures, and techniques can be applied while teaching English as a second or a foreign language.

2.3 Multiple Intelligences

According to Farmer and Sundberg (1986), "mismatched objectives may lead students to consider the teaching as poor, and teachers to perceive their students as unmotivated or uninterested" (p. 29). Kruk and Zawodniak (2018) reveal that students are more interested in subjects when they study them, in a way that these suit their needs. As a result, the Multiple Intelligence theory, the Learning Styles theory, and Motivation have been considered in this research synthesis to emphasize the relevance of modifying present classroom teaching practices in order to improve the EFL learning instruction.

Gardner's Theory of Multiple Intelligences (MI) (1983), is the most pertinent theory for this study, as the author affirms that, "human intellectual ability is a collection of problem-solving talents for developing effective products that serve as the foundation for obtaining new knowledge" (pp. 64-65). Based on the previous idea and how humans' abilities are grouped by Gardner, Armstrong (2017) categorizes the existing bits of intelligence into: verbal- linguistic, logical-mathematical, spatial, body-kinesthetic, musical, interpersonal, intrapersonal, naturalistic, existential, emotional, creative, and collaborative. Besides, the author explains that each person has capabilities in all twelve intelligences, and they work together to accomplish tasks of daily life, but they function differently in every person. For instance, there are some cases in which

"people have developed high-level abilities in all the intelligences, or there is a lack of all as a result of a disease or disability" (Armstrong, 2017, p.15).

Nevertheless, Gardner (1983) emphasizes that despite the fact inadequate qualities make the development of all types of intelligences in individuals difficult, current skills can be developed in the classroom with suitable training and enrichment.

2.3.1 Types of Multiple Intelligences

In accordance with the MI theory, some predispositions make it easier for people to learn about their dominant intellect. At first, Gardner proposed the existence of seven types of intelligence, but as time went by, more types emerged, adding specific constructs, which expand human vision of intelligence. Armstrong (2017) classifies human talents into the twelve intelligences listed below, along with specific teaching methodologies and techniques for each one:

Linguistic intelligence: This intelligence consists of being able to modify and comprehend syntax, semantics, phonology, and pragmatics. In activities such as storytelling, brainstorming, tape recording, and journal writing, people display excellent word use.

Logical-mathematical: This intelligence comprises the ability to respond to numbers, functions, or patterns. Puzzles, science thinking, generating timelines, and playing math games are all easier for people with these abilities.

Body-kinesthetic: Physical movement is an element of body-kinesthetic intelligence, which includes skills like coordination and flexibility. People in this group express themselves by engaging in hands-on activities such as role-playing and other physical

games like finger painting. Indeed, according to the authors, learners love acquiring a new language through art and culture.

Visual-spatial: This combines the ability to respond to color, form, and space. Furthermore, individuals with this intelligence are capable of forming mental representations, charts, and grids. Therefore, Gardner (1983), establishes that the observation of the visual world and this type of intelligence are extremely linked to each other.

Musical: This intelligence entails the ability to perceive, discriminate, and change rhythm and melody patterns. Playing with varied tunes while leading pupils to develop patterns in their minds with what they have learnt is an effective teaching approach.

Interpersonal: This encompasses the ability to identify and differentiate the moods, temperaments, motivations, and intentions of other individuals. Moreover, people with their interpersonal intelligence highly developed feel more comfortable working with others in groups.

Intrapersonal: This compromises a clear understanding of one's own motives, inner emotions, strengths, and limits. Self-learning, self-understanding, and disciplinary abilities are also highlighted. Subsequently, learners who exhibit these characteristics may have the option to participate in initiatives that encourage self-esteem activities.

Naturalistic Intelligence: This intelligence takes into account natural events. It is the ability to classify and recognize environmental species, including flora, wildlife, and inanimate objects. As a result, initiatives like nature walks and pet-in-the-classroom broaden the features of those who belong to this category.

Emotional intelligence: This involves the capacity to distinguish and control one's own and others' feelings. It's anything but a blend of relational and intrapersonal insights. Consequently, learners who possess a high level of emotional intelligence have empathy, and they do not let their emotions control them; instead, they develop the psychological skills to channel them appropriately.

Existential intelligence: As claimed by Gardner (2008), the existential intelligence is "based on the human proclivity to ponder the most fundamental questions of existence" (p. 20). Individuals with this type of intelligence are always questioning to themselves or to others the purpose of their lives or reasons of their deaths, as well as their origin and future days. Philosophers, religious leaders, or statesmen are individuals whose existential intelligence is highly developed.

Creative intelligence: The effect of combining intellect and creativity to produce a unique concept or product is known as creative intelligence. In fact, while intelligence entails problem-solving, which not necessarily results in innovative solutions, creative intelligence, contrarily, allows people to think beyond the box and come up with innovative ideas.

Thus, this type of intelligence entails the capacity to think ahead and envision many possibilities that have not been manifested yet. These are people who think in a flexible and open way, allowing them to perceive situations from multiple angles in order to come up with unconventional or new solutions.

Collaborative intelligence: This intelligence refers to a method of deliberation that permits a group of people to develop shared knowledge and make better decisions,

enhancing their chances of overcoming the obstacles and problems caused by plenty of human activities in a complex and changing environment. Moreover, collaboration has become a key characteristic of the collective intelligence, and its importance is valued mostly in the classwork activities and group projects.

2.4 Learning Styles

Turning now to a new section of this chapter, Learning Styles (LS) constitutes a theory that is often confused with the one of Multiple Intelligences, though they are different constructs. The Learning Styles theory explains how we prefer to learn and the Multiple Intelligences one explains what we prefer to learn (Worrel & Noguera, 2011).

Peter Honey and Alan Mumford (1986) created their own Learning Styles Questionnaire (LSQ) as Kolb's Learning Style Inventory (LSI) was proven to have low validity with managers. Instead of directly asking people how they learn, like Kolb's LSI did, Honey and Mumford administered a questionnaire that probed general behavioral patterns. The rationale for this was that several learners have never thought about how they learn; they have only gone through some guidance about some acquainted methodologies and traditional studying techniques. Notwithstanding, it is a high-priority that EFL students recognize their own learning styles or preferences to identify strategies, strengths, and abilities.

Although, there are many diverse theories and frameworks regarding Learning Styles, Honey and Mumford (1986) distinguish four types of learning styles: activist, theorist, pragmatist, and reflector. According to them, most people either adhere to one of the styles or alternate between two, depending on the situation. Each of these learning styles has its own set of instructional activities that may be more suited to the needs of specific learners.

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2.4.1 Types of Learning Styles

Honey and Mumford (1986) classified student's learning styles into the four types listed below, along with specific teaching techniques for each one:

Activist: Activists are those individuals who learn by doing. This type of students prefer to use their hands, body, talk a lot, and get involved in classroom activities. What usually works for activists to learn easily are solving problems, group discussion, puzzles, competitions, and role-plays.

Theorist: Theorist students are interested in learning the theory behind the activities. To participate in the learning process, they require models, concepts, and facts. They usually acquire knowledge more effectively if the learning process includes stories, quotes, background information, and even statistics.

Pragmatist: These students need to know how to put into practice the concepts and theories learned in class to be able to assimilate them in a better way. They are natural experimenters; consequently, the teaching techniques for them to learn may include case studies, problem solving, debates, and tours.

Reflector: Students who are more inclined to this LS, acquire new knowledge by observing and thinking. They may prefer to view experiences from a number of different perspectives, take the time to come to a proper conclusion, and absorb their understanding deeply. Some activities and techniques that match this style can be paired discussions, self-analysis, questionnaires, observing activities, peer checking, and couching.

2.5 Multiple Intelligences and Learning Styles in EFL instruction

Proceeding now to a more categorical analysis of Multiple Intelligences and Learning Styles in an EFL learning context, English is considered a language naturally related to the linguistic intelligence; consequently, EFL educators need to develop this particular intelligence in the EFL learners, without dismissing the fact that not all students in the EFL classroom may have linguistic intelligence as the dominant one. Therefore, EFL learners and educators should take into consideration that MI and LS theories can be a form of acquiring a foreign language easily by means of diverse methods, which may offer varied activities and techniques that allow access to language learning from the dominant intelligence of each student.

Additionally, regarding MI and LS in the EFL schoolroom, it is important to mention that many of the activities and assignments that take place in the EFL classroom involve several intelligences and learning styles simultaneously. For example, a role play might work on bodily - kinesthetic and interpersonal intelligences, but it also involves the activist style.

In line with the aforementioned, language teachers have distinguished themselves for being one of the groups that has most related multiple intelligences and learning styles to their area of specialty (Arnold & Fonseca, 2004). The aim is to make EFL classes more inclusive for all MI and LS preferences, providing better opportunities for all students to acquire the language in a more natural and comfortable way.

2.6 Motivation and the learning process

The mastering of a language might be a laborious journey since it entails several areas of knowledge. According to Sermanshahi (2012), when someone is learning a language, motivation is seen as a crucial attribute because it offers the initial impetus to begin learning the language

and also aids in maintaining effort throughout the process. Consequently, an increasing number of researchers have started to investigate various strategies, teaching styles, and approaches which may encourage students when learning a second or foreign language.

Thus, motivation, according to Bhoje (2015), consists of a tool used in education to motivate learners to be more engaged in a variety of activities; as a result, it is crucial to comprehend its relevance in the classroom. Besides, according to the same author, motivation is described as a state which energizes, directs, and sustains conduct, since it incorporates all what learners require to get significant knowledge in an activity.

2.6.1 The role of the teacher in enhancing student motivation

Teachers play a remarkable impact on kids' progress at school. As stated by Pakarinen, Kiuru, Lerkkanen, Poikkeus, Siekkinen, and Nurmi (2010), teachers' instruction, objectives, and varied classroom methods help students learn and achieve academic success. Pupils' internal control, self-esteem, and motivation become affected by the warmth of the teachers and the application of regulations in the classroom. Indeed, teachers' support and attention to their learners have been identified as transcendental variables in students' willingness when learning something new.

As Makewa and Ngussa (2015) point out, teachers are the best source of motivation in the teaching-learning process. Therefore, motivational strategies used in class are not considered a list of forced activities to follow. Before any attempts to produce motivation may be successful, some preconditions must be met. As maintained by Dörnyei (2008), some of the conditions aforementioned involve a suitable and positive teacher-student relationship, a welcoming and

encouraging school environment, and a group of learners who are united by appropriate group standards and rules.

2.7 Conclusion

Throughout this chapter, theories, concepts, and viewpoints from different authors have been accounted in order to provide a view on multiple intelligences, learning styles, EFL classrooms, and motivation in the learning process. This theoretical framework is considered of great relevance since it aids in the comprehension of the research synthesis and the support of the subsequent chapters.

Gardner's Theory of Multiple Intelligences shows us how smart everyone can be. It could be just the lack of interest in doing an activity that holds individuals back to improve their skills or high-level abilities. Sermanshahi (2012) points out that people are not necessarily intelligent because they have a potential, talent, or innate ability. Instead, intelligence could also be the manner in which people perceive, comprehend, adapt to new situations, learn from new experiences, seize the essential factors of a complex matter, demonstrate mastery over complexity, solve problems, and perform every detail in a natural way.

Overall, theories on Multiple Intelligences and Learning Styles emphasize the individual differences among students and the complexity that those features represent in the EFL learning process. Besides, Motivation and favorable schools' environments describe the internal and external factors that affect students when they acquire a foreign language and new knowledge. These all afar above sustain the importance of improving language teaching strategies to instruct and learn English as a foreign language.

CHAPTER III

Literature Review

The following chapter addresses relevant findings and brief descriptions of the studies analyzed. The overall data collected was synthesized and divided into four sections: a) Multiple Intelligences and Learning Styles in EFL contexts, b) Benefits of considering MI and LS in the EFL language classroom, c) Influence of MI and LS on EFL academic performance, and d) Conclusions.

3.1 Multiple Intelligences and Learning Styles in EFL contexts

Different authors, such as Sternberg (1986); Gardner (1983), as cited in Mérida and Jorge (2007), and Thurstone (as cited in Beaujean & Benson, 2019) claim that there are diverse types of intelligences, which must be considered in the educational field.

First of all, Sternberg (1986) presented his Triarchic Theory of Intelligence according to which, intelligence namely encompasses three sub intelligences: creative, analytical, and practical. In the same way, Gardner (1983) organized intelligence into eight groups: musical, linguistic, spatial/visual, bodily-kinesthetic, logical-mathematical, interpersonal, intrapersonal, and naturalistic. Later on, in 1999, he decided to add naturalistic intelligence to his list. Similarly, with respect to Thurstone's model (as cited in Beaujean & Benson, 2019), intelligence is categorized into: verbal comprehension, spatial visualization, number facility, associative memory, word fluency, reasoning, and perceptual speed, respectively.

Despite the divergent divisions of intelligence, all the aforementioned authors coincide in that intelligence is not only of one type. Indeed, this encompasses multiple types and elements that aid individuals to understand human's thoughts, behaviors, and other variables.

Regarding Learning Styles, there is diversity in the manner of organizing them as well; for instance, Honey and Mumford (1986) classified modes of learning into: activist, theorist, pragmatist, and reflector. Likewise, Neil Fleming (Fleming & Baume, 2006) identified four learning styles which were coined in the VARK model that stands for visual, auditory, reading/writing preference, and kinesthetic. Similarly, Dornyei classified learning styles into three types: cognitive, sensory, and personality (as cited in Awla, 2014).

Although, authors classify learning styles in multiple manners, the previous scholars agree on the existence of various modes of learning that characterize the human mind.

3.2 Benefits of considering MI and LS in the EFL language classroom

Researchers like Behjat (2012), Abdullah et al. (2015), and Yavich and Rotnitsky (2020), among others, claim that taking into consideration MI and/or LS in EFL classes may bring several short and long-term benefits to learners.

First, giving MI and LS the importance that they deserve could provide learners with short-term advantages. For instance, Fleming and Baume (2006) in their work called "Learning Styles Again: VARKing up the right tree!" pointed out that if educators consider students' diverse intelligences in class, they could obtain the short-term benefit of more flexibility to change their learning behavior. Similarly, Behjat (2012) in his study called "Interpersonal and intrapersonal intelligences: Do they really work in foreign-language learning?" pointed out that when EFL instructors consider their students' multiple intelligences, EFL learners become more successful in language acquisition. Likewise, Abdullah et al. (2015) in their work, "The Impact of Learning Styles on Learner's Performance in E-Learning Environment," mentioned that if

educators take into account their students' learning styles, they could get the short-term benefits of better learning experience and access to better designed e-learning material.

In the same manner, other authors revealed that some short-term benefits for learners could be the following: Students' cultures can be taken into account; children's interest may increase in class; learners with a low school achievement can receive support (Gündüz and Ünal, 2016); easy and faster learning can take place, better grades can increase, positive attitude and discipline can be enhanced (Mora et al., 2017); activation of student-centered activities, successful strategy use, and effective learning can become significant (Ansarin & Khatibi, 2018); lastly, learners can be better understood by educators (González-Treviño et al., 2020), among others.

Lastly, considering MI and/or LS in EFL classes might bring long-term benefits for learners. Thus, Sadeghi and Farzizadeh (2012) uttered in "The Relationship between Multiple Intelligences and Writing Ability of Iranian EFL Learners" that some students' benefits which may emerge in the long run if instructors pay close attention to students' multiple intelligences are: More equality and life-long learning. Similarly, Sener and Çokçaliskan (2018) claimed in "An Investigation between Multiple Intelligences and Learning Styles" that some long-term benefits that learners may get if their teachers consider multiple intelligences and learning styles are: Developing self-regulation, self-confidence, self-respect, a good attitude towards learning, and identifying strengths and weaknesses. In the same way, Yavich and Rotnitsky (2020) explained in their work called "Multiple Intelligences and Success in School Studies" that if learners' multiple intelligences are given enough attention, students might improve their skills and strengths after a considerable amount of time.

In the same vein, other scholars have highlighted additional long-term benefits for students as follows: Increased learners' achievement, better students' attitudes with English (Saricaoglu & Arikan, 2009), increased children's interest in class, students' cultures consideration (Gündüz and Ünal, 2016), and understanding of students' needs (González-Treviño et al., 2020), to cite a few.

3.3 Influence of MI and LS on EFL academic performance

According to the authors Saricaoglu and Arikan (2009), Ansarin and Khatibi (2018), and Sogutlu (2018), considering MI and/or LS in EFL language classrooms could provoke a positive, negative, or no influence on students' EFL academic performance.

Firstly, acknowledging MI and/or LS in an EFL class might positively influence learners' academic achievement on the one hand. Indeed, Saricaoglu and Arikan (2009) conducted a study with 144 learners of Erciyes University's School of Foreign Languages and after collecting data with the "Multiple Intelligences Inventory for Adults" and analyzing it with ANOVA and other methods, encountered a positive influence between learners' musical intelligence and their mastery in the writing skill.

Likewise, Behjat (2012) researched on EFL adult students who were first interviewed and grouped in accordance with their intrapersonal and interpersonal intelligences; then, they were tested with the TOEFL examination; and finally, their mean scores were compared, revealing two positive influences: The first one between interpersonal intelligence and reading comprehension and grammar; and the second one, between intrapersonal intelligence and academic achievement.

Correspondingly, Abdullah et al. (2015) worked with a group of 33 young adults, who participated in an e-learning program in an Asian University named *King Abdul University*. During the intervention, researchers collected data on their learning styles through an e-learning platform. Later on, the information was analyzed by means of the software WEKA, which stands for Waikato Environment for Knowledge. Lastly, the scholars discovered that there was a positive influence between students' learning styles and their academic performance.

On the other hand, considering MI and/or LS in class could negatively influence learners' academic attainment. For example, Saricaoglu and Arikan (2009) found a negative influence between bodily-kinesthetic, spatial, intrapersonal intelligences and learners' test scores in grammar in their aforementioned study.

Likewise, Sogutlu (2018) conducted a study with 24 high schoolers in Albania. The scholar gathered data by means of the "Multiple Intelligences Inventory for Adults" and an English proficiency test. Then, a descriptive analysis was carried out, which was complemented with a correlational one. Finally, the researcher noticed that there was a negative influence between interpersonal and bodily intelligences with respect to grammar and vocabulary.

Ultimately, other researchers, such as Razmjoo (2008), Sadeghi and Farzizadeh (2012), and Ayasrah and Aljarrah (2020) have found no influence at all between MI and/or LS instruction in EFL classes and learners' academic accomplishment.

3.5 Conclusion

This last section seeks to summarize concisely the most relevant information stated in the current literature review in order to conclude the chapter with a clear understanding of the findings encountered in the collected primary sources.

In consonance with the literature review, several classifications of Multiple Intelligences have emerged along the evolution of learning instructions, such as Sternberg's Triarchic Theory of Intelligence (1986), Gardner's eight intelligences (as cited in Mérida & Jorge, 2007), and Thurstone's model (as cited in Beaujean & Benson, 2019). Similarly, Learning Styles have been classified into diverse groups; for instance, Honey and Mumford's classification (1986), Fleming's VARK model (Fleming & Baume, 2006), and Dornyei's three learning styles (as cited in Awla, 2014).

Furthermore, some students' advantages if teachers take into account their multiple intelligences, based on the literature, could be organized into short and long-term benefits. First, some short-term advantages that learners might get are the following: More flexibility to change their learning behavior (Fleming & Baume, 2006), more successful students (Behjat, 2012), and access to better designed e-learning material (Abdullah et al., 2015). On the other side, some learners' long-term benefits are more equality for students, life-long learning (Sadeghi & Farzizadeh, 2012), developing self-regulation, self-respect, a good attitude towards learning and identifying strengths and weaknesses (Sener & Çokçaliskan, 2018), to indicate a few.

Moreover, the influence of multiple intelligences and learning styles on pupils' EFL academic performance, based on the reviewed information, could be positive, negative, or no influence. First, Saricaoglu and Arikan (2009) found a positive influence between learners' musical intelligence and their accomplisment in their writing skill. Likewise, Behjat (2012) encountered two positive influences: The first one between interpersonal intelligence and reading comprehension and grammar; the second one, between intrapersonal intelligence and academic achievement. On the contrary, Saricaoglu and Arikan (2009) encountered a negative influence

between bodily-kinesthetic, spatial, intrapersonal intelligences and students' scores in grammar. Similarly, Sogutlu (2018) found a negative influence between interpersonal and bodily intelligences with respect to grammar and vocabulary.

Lastly, authors such as Razmjoo (2008), Sadeghi and Farzizadeh (2012), and Ayasrah and Aljarrah (2020) found no influence between MI and/or LS instruction in EFL classes and students' academic attainment.

CHAPTER IV

Methodology

This research synthesis was conceived as an exploratory investigation of bibliographical character since according to Norris and Ortega (2006), "exploratory bibliographic research is the systematic secondary review of accumulated primary research studies" (p. 4). Consequently, in order to collect reliable data for this project, the information was searched in online databases, such as Google Scholar, ResearchGate, EBSCO, Academia, ERIC, Taylor & Francis, and Elsevier. On the other hand, the inclusion criteria considered for the present review were: 1) empirical and theoretical studies; 2) articles that were published no further back than the year 2000 so that the findings could be considered relevant; 3) studies which have shown positive or negative results concerning the application of Multiple Intelligences and Learning Styles in the EFL educational field. In addition, there were no restrictions concerning the design of the studies; hence, qualitative, quantitative, and mixed methods were taken into account. On the other hand, the following exclusion criteria were considered in accordance to the reviewed primary studies: unpublished studies, non-peer-reviewed studies, and studies from secondary sources.

Furthermore, based on preliminary research, some journals, such as *The Canadian Modern Language Review, International Journal of Instruction, International Journal of Applied Linguistics & English Literature, Arab World English Journal*, among others were revised since many relevant studies were found in those sources (see Annex 1). Lastly, a coding process to classify the 15 primary studies in relation to diverse criteria emerged through the analysis.

CHAPTER V

Analysis

5.1 Introduction

This chapter has as its main objective to provide valuable data concerning the analysis of 15 research articles regarding Multiple Intelligences and Learning Styles, in order to identify the benefits that learners could gain if their educators considered them in the EFL learning process and also to determine the influence of these on EFL learner's academic performance. With this purpose in mind, the present analysis has been subsequently divided into two categories: Students' benefits if teachers consider MI and LS in the EFL learning process and Influence of MI and LS on EFL learner's academic performance. Additionally, since it is significant for the present work, the different research methodological approaches and locations of the primary sources have also been analyzed within the genres: Location of the studies and Research methodological approaches.

5.2 Students' benefits if teachers consider MI and LS in the EFL learning process

This analysis has been performed with the intention of answering the first research question of this secondary review, namely What are the students' benefits if educators take into account LS and MI theories applied to the EFL learning process, as reported by the literature?

In response, 15 research articles concerning MI and LS have been carefully examined and organized into Table 1.

Table 1

Primary Studies used for the analysis

Name of the Study	Author/s	Year of Publication
The Impact of Learning Styles on Learner's Performance in E-Learning Environment	Abdullah, M., Daffa, W. H., Bashmail, R. M., Alzahrani, M., and Sadik, M.	2015
The Relationship Between Multiple Intelligences and Language Learning Strategies and Gender	Ansarin, A. A., and Khatibi, S. P.	2018
The Differences in Multiple Intelligences between the Students of Jordan University of Science and Technology	Ayasrah, S. M., and Aljarrah, A. H.	2020
Interpersonal and intrapersonal intelligences: Do they really work in foreign-language learning?	Behjat, F.	2012
Emotional Intelligence Enhancement Impacts on Developing Speaking Skill among EFL Learners: an Empirical Study	Ebrahimi, M. R., Khoshsima, H., Zare-Behtash, E., and Heydarnejad, T.	2018
Assessment of multiple intelligences in elementary school students in Mexico: An exploratory study	González-Treviño, I. M., Núñez-Rocha, G. M., Valencia-Hernández, J. M., and Arrona-Palacios, A.	2020
Effects of Multiple Intelligences Activities on Writing Skill Development in an EFL Context	Gündüz, Z. E., and Ünal, I. D.	2016

Exploring the relationship between reading strategy use and multiple intelligences among successful L2 readers	Mirzaei, A., Rahimi Domakani, M., & Heidari, N. (2014)	2014
A case study of learning styles of older adults attending an English course	Mora, J., Quito, I., & Sarmiento, L.	2017
On the Relationship between Multiple Intelligences and Language Proficiency	Razmjoo, S. A.	2008
The Relationship between Multiple Intelligences and Writing Ability of Iranian EFL Learners	Sadeghi, K., and Farzizadeh, B.	2012
A study of Multiple Intelligences, Foreign Language success and some selected variables	Saricaoglu, A., and Arikan, A.	2009
An Investigation between Multiple Intelligences and Learning Styles	Sener, S., and Çokçaliskan, A.	2018
Multiple Intelligences and Foreign Language Learning: Possible Relationship	Sogutlu, E.	2018
Multiple Intelligences and Success in School Studies	Yavich, R., and Rotnitsky, I.	2020

Note. N= 15

Table 1 exhibits the 15 updated primary sources that were used in the present secondary review. All of them were organized according to: Name of the study, author/s, and year of publication. It is worth mentioning that all of these sources are significant since they contain

information related to students' multiple intelligences and learning styles that has been useful to respond the research questions of this work.

Additionally, the advantages found in the studies were classified into *short-term, long-term benefits,* and *no benefits;* thus*,* creating Table 2 in order to have a deeper understanding of them.

Table 2

Types of students' benefits if teachers consider MI and/or LS in the EFL learning process

Students' Benefits	Number[a] of Studies	(%)	Author/Year
Short-term Benefits	11	73,33%	Abdullah et al. (2015); Ansarin & Khatibi (2018); Behjat (2012); González-Treviño et al. (2020); Gündüz & Ünal (2016); Mora et al. (2017); Sadeghi & Farzizadeh (2012); Saricaoglu & Arikan (2009); Sener & Çokçaliskan (2018); Sogutlu (2018); Yavich & Rotnitsky (2020)
Long-term Benefits	12	80%	Abdullah et al. (2015); Ansarin & Khatibi (2018); Ayasrah & Aljarrah (2020); Behjat (2012); Ebrahimi et al. (2018); González-Treviño et al. (2020); Gündüz & Ünal (2016); Mirzaei, Rahimi, & Heidari (2014); Sadeghi & Farzizadeh (2012); Saricaoglu & Arikan (2009); Sener & Çokçaliskan (2018); Yavich & Rotnitsky (2020)
No Benefits	1	6,66%	Razmjoo (2008)

Note. N= 15
[a] Some studies are counted in more than one category.

Based on Table 2, learners' *short-term benefits*, which consist of students' advantages that can be obtained after a few classes or from the very first class, such as students' cultures, more interest in class, rapid help to learners with a low school achievement (Gündüz & Ünal,

2016), effective learning, more student-centered activities (Ansarin & Khatibi, 2018), teachers can better understand students to help them (González-Treviño et al., 2020), among others, were found in 11 out of the 15 research works; in other words, in 73,33% of the primary articles that were gathered.

Whereas *long-term benefits*, which can be defined as students' advantages that they can acquire over time, such as increased learners' achievement, better students' attitudes with English (Saricaoglu & Arikan, 2009), developing more effective study habits, long-term remembering of information (Abdullah et al., 2015), successful strategy use, effective learning (Ansarin & Khatibi, 2018), and improvement of the speaking skill (Ebrahimi et al., 2018) were encountered in 12 out of the 15 primary sources, representing an 80% of the total number of studies.

These results are quite similar and suggest that educators must give MI and LS theories the importance they deserve in each of their courses. Most of all by considering that "a major problem in EFL classes is that learners' individual differences are not usually taken into consideration in language instruction" (Ansarin & Khatibi, 2018, p. 84). Teachers should remember that their students possess multiple intelligences and different manners of learning which demand an educational instruction for diversity in order to achieve not only short-term, but also long-term benefits.

According to Sogutlu (2018), instructors who accept that students have different intelligences, individualize and pluralize their teaching. In other words, they are aware of their learners' multiple intelligences; thereby, they employ techniques and methods that enhance

everyone's capacities. Furthermore, these educators present relevant topics in myriad manners; consequently, learners can obtain more benefits in every single class.

But, how can educators make the system fit everyone's manners of learning? Abdullah et al. (2015) point out that teachers can achieve it by "modifying courses automatically, adding some learning objects, and/or some learning activities" (p. 30). According to Mora et al. (2017), if teachers know their students' learning styles, they can create "an atmosphere that suits their students' preferences" (p. 9). There are multiple ways of making the system fit, but in the end, it will always depend on every teacher's creativity.

At last, the previous graph shows that *no benefits* were encountered in only one research work. This finding certainly confirms the relevance of taking into consideration MI and LS in the EFL academic context as this could certainly contribute to students' language success.

5.3 Influence of MI and LS on EFL learner's academic performance

The present analysis has been carried out with the purpose of responding to the second research question of this work, as follows: What is the influence of MI and LS theories on EFL academic performance, as reported by the literature?

Consequently, 15 primary sources were examined and classified into Table 1. Later on, the collected information was organized into three types of influences: *positive*, *negative*, and *no influence* as can be noticed in Table 3.

Table 3

Types of influences on students' EFL academic performance if educators consider MI and/or LS in EFL instruction

Students' Influence	Number[a] of Studies	(%)	Author/Year
Positive	12	80 %	Abdullah et al. (2015); Ansarin & Khatibi (2018); Behjat (2012); Ebrahimi et al. (2018); González-Treviño et al. (2020); Gündüz & Ünal (2016); Mirzaei et al. (2014); Mora et al. (2017); Saricaoglu & Arikan (2009); Sener & Çokçaliskan (2018); Sogutlu (2018); Yavich & Rotnitsky (2020)
Negative	2	13,33%	Saricaoglu & Arikan (2009); Sogutlu (2018)
No Influence	3	20 %	Ayasrah & Aljarrah (2020); Razmjoo (2008); Sadeghi & Farzizadeh (2012)

Note. N= 15
[a] Some studies are counted in more than one category.

According to this table, 12 out of the 15 analyzed articles by authors, such as Saricaoglu and Arikan (2009); Behjat (2012); Abdullah et al. (2015); Mora et al. (2017); Ansarin and Khatibi (2018); Ebrahimi et al. (2018); Sener and Çokçaliskan (2018) have shown a *positive influence* on learners' EFL academic performance if educators consider MI and/or LS in the EFL instruction. It signifies that instructors should assess their students' intelligences in order to have a clear understanding of their background and experiences (Gonzalez-Treviño et al., 2020). As Ansarin and Khatibi (2018) claim, "investigating the use of language learning strategies and intelligence type of EFL learners will allow [educators] to make more informed decisions

concerning how they should be dealt with in language classes" (p. 84). Similarly, Yavich and Rotnitsky (2020) point out that "mapping learners' intelligences will facilitate learning processes and learning skills to adapt teaching approach to the learner's dominant intelligence" (p. 116).

In the same vein, according to Sener and Çokçalışkan (2018), if students are aware of their strengths and weaknesses, they could know how to compensate for their weaknesses and also develop their strengths properly.

Furthermore, the graph indicates that two research articles presented a *negative influence* on students' EFL academic achievement when instructors consider MI and/or LS. Probably, these results have to do with the fact that in the primary sources some participants may not have collaborated adequately with the researchers due to stress in their respective courses.

Lastly, Table 3 displays that in three primary sources, *no influence* on learners' academic achievement was found. This small number of works corroborates the importance of MI and LS in the EFL context that Abdullah et al. (2015) and Ansarin and Khatibi (2018) highlighted in their respective studies after working with their participants.

5.4 Location of the studies

Table 4

Location of the studies

Continent	Number of Studies	(%)	Author/Year
Asia	12	80%	Abdullah et al. (2015); Ansarin & Khatibi (2018); Ayasrah & Aljarrah (2020); Behjat (2012); Ebrahimi et al. (2018); Gündüz & Ünal (2016); Mirzaei et al. (2014); Razmjoo (2008); Sadeghi & Farzizadeh (2012); Saricaoglu & Arikan (2009); Sener & Çokçaliskan (2018); Yavich & Rotnitsky (2020)
Europe	1	6,66%	Sogutlu (2018)
Latin America	2	13,33%	González-Treviño et al. (2020); Mora et al. (2017)

Note. N= 15

Table 4 shows the location of the 15 primary sources found in three diverse contexts. According to it, 12 out of the 15 studies were carried out in Asia, one in Europe, and two in Latin America. It is of paramount importance to take into account the location of the studies to 1) find gaps for further research works and 2) consider how much research has been done in our context. Unfortunately, only two research articles were performed in Latin America: González-Treviño et al. (2020) worked with Mexican students and Mora et al. (2017) with Ecuadorian ones. Finally, it is worthy to mention that according to table 4, Asia is the continent where more importance has been placed on students' MI and LS regarding EFL instruction.

5.5 Research Methodological Approaches

Table 5

Research Methodological Approaches

Focus	Number of Studies	(%)	Author/Year
Quantitative	8	53,33%	Ebrahimi et al. (2018); Mirzaei et al. (2014); Mora et al. (2017); Razmjoo (2008); Sadeghi & Farzizadeh (2012); Sener & Çokçaliskan (2018); Sogutlu (2018); Yavich & Rotnitsky (2020)
Qualitative	0	0%	None
Mixed-methods	7	46,66%	Abdullah et al. (2015); Ansarin & Khatibi (2018); Ayasrah & Aljarrah (2020); Behjat (2012); González-Treviño et al. (2020); Gündüz & Ünal (2016); Saricaoglu & Arikan (2009)

Note. N= 15

Table 5 displays the research methodological approaches of the primary works. Based on it, eight out of the 15 studies adopted a quantitative approach, seven used mixed-methods to gather data, and there were no studies concerning the qualitative approach. What is thought-provoking about table 5 is the number of primary sources that used a quantitative approach and mixed-methods to collect data. This might have happened since in most of the primary sources, researchers applied tests to their participants which were scored to answer distinct research questions or also interviews to gather data on the learners' MI and LS. For instance, Ansarin and

Khatibi (2018) administered interviews and scored grammar and reading sections of the TOEFL test to determine if there was a relationship between MI and their students' language learning.

5.6 Conclusion

In brief, based on the previous information, it can be understood that most of the scholars of the collected research articles agree that considering students' MI and LS in EFL instruction could positively influence their success in English learning. On the other hand, only few researchers claim that considering MI and LS might be negative or unimportant for learners. This information clearly suggests that English teachers should always emphasize the significant role of MI and LS for students' language success. Furthermore, based on the last part of the analysis, it is clear that MI and LS have received more attention in Asian countries rather than in European or Latin American ones. This fact certainly highlights our necessity as a Latin country to pay more attention to language learning research. Ultimately, it has been demonstrated that most of the primary sources of this work have used a quantitative approach or employed mixed-methods to gather data.

CHAPTER VI

Conclusions and Recommendations

6.1 Introduction

This section encompasses conclusions and recommendations that the author has provided for this work, which has been elaborated to identify the benefits of taking into consideration Multiple Intelligences and Learning Styles in the EFL learning process and to determine the influence of Multiple Intelligences and Learning Styles on EFL learner's academic performance, according to the information reported in the primary sources.

6.2 Conclusions

The present research work identified the benefits that students could get if teachers considered Multiple Intelligences and Learning Styles in the EFL learning instruction. According to the first section of the aforementioned analysis, learners' *short-term benefits,* such as effective learning, more student-centered activities (Ansarin & Khatibi, 2018), educators can better understand their learners (González-Treviño et al., 2020), among others, were found in 11 out of the 15 primary sources.

Furthermore, students' *long-term benefits* like developing more effective study habits, long-term remembering of information (Abdullah et al., 2015), successful strategy use, effective learning (Ansarin & Khatibi, 2018), and improvement of the speaking skill (Ebrahimi et al., 2018), were encountered in 12 research works.

This information suggests, on the one hand, that educators should consider their learners' individual differences in order to better understand them and individualize and pluralize their

classes (Ansarin & Khatibi, 2018; Sogutlu, 2018); making them adjust everyone's ways of learning (Abdullah et al., 2015; Mora et al., 2017).

On the other hand, the second constituent of the previous analysis identified the influence of considering Multiple Intelligences and Learning Styles on students' EFL academic performance according to authors like Abdullah et al. (2015). In fact, it was found that 12 out of the 15 primary works presented a *positive influence* on learners' EFL academic achievement. It means that educators should firstly determine the intelligence types of their learners to have a better grasp of their previous experiences and make more adequate decisions in class (Ansarin & Khatibi, 2018; Gonzalez-Treviño et al., 2020; Yavich & Rotnitsky, 2020). Accordingly, this information could also assist learners in finding "correct styles to compensate for their weaknesses and develop their strengths" (Sener & Çokçalışkan, 2018, p. 131).

Besides, predicated on the analysis, two primary works showed a *negative influence* on students' EFL academic performance. According to the scholars, these results are possibly due to a lack of collaboration of some participants during the gathering of information about their MI and LS.

At last, the analysis showed that in only three articles, *no influence* on learners' academic achievement was encountered. This certainly confirms the relevance of MI and LS in the EFL context that Abdullah et al. (2015) and Ansarin and Khatibi (2018) found in their works.

In short, based on the previous information, it can be concluded that EFL teachers should consider the uppermost importance of MI and LS in each of their classes, keeping in mind that

pupils apply their learning based on their dominant intelligences and learning styles. Moreover, it has been evidenced that the combination of MI and LS may improve students' learning processes when acquiring a foreign language as Yavich and Rotnitsky (2020) mentioned.

Lastly, it is important to highlight that the present research work was limited by the small number of primary sources that were used to carry it out, so the findings cannot be generalized. Furthermore, another limitation was that it was done with only a few Latin American studies: Mexican and Ecuadorian ones. In spite of the aforementioned limitations, this secondary review was conducted with reliable and updated sources that enabled the author to obtain significant results which might be useful for scholars, educators, and learners alike.

6.3 Recommendations

This research synthesis concludes by addressing certain recommendations. First, it is recommended for scholars to investigate the extent to which MI and LS theories are considered by teachers to identify the current situation in EFL classes worldwide, especially in Latin America. Second, investigators should conduct more research on the relevance of MI and LS theories to determine the benefits these might bring to learners and their relevance in the enhancement of EFL academic performance. Third, researchers are advised to work with a representative number of primary sources in their investigations if they wish to obtain accurate results. Lastly, it is paramount for educators to be trained permanently in improving their understanding and knowledge with regard to their students' learning processes by considering their diversity and inclusion.

References

Armstrong, T. (2017). Multiple Intelligences in the Classroom, 4th Edition (4th ed.). ASCD.

Arnold, J., & Fonseca, M. C. (2004). Multiple intelligence theory and foreign language learning: A brain-based perspective. *International journal of English studies*, *4*(1), 119-136.

Awla, H. A. (2014). Learning styles and their relation to teaching styles. International Journal of Language and Linguistics, 2(3), 241-245.

Ayasrah, S. M., & Aljarrah, A. H. (2020). The Differences in Multiple Intelligences between the Students of Jordan University of Science and Technology. International Journal of Higher Education, 9(4), 35-45.

Beaujean, A. A., & Benson, N. F. (2019). The one and the many: Enduring legacies of Spearman and Thurstone on intelligence test score interpretation. Applied Measurement in Education, 32(3), 198-215.

Berman, R. A. (Ed.). (2004). Language development across childhood and adolescence (Vol. 3). John Benjamins Publishing.

Bhoje, G. (2015). The importance of motivation in an educational environment. Lulu. com.

Calle, A. M., Argudo, J., Cabrera, P., Calle, M. D., & León, M. V. (2015). El impacto de la capacitación a profesores fiscales de inglés de Cuenca. Maskana, 6(1), 53-67.

Chamot, A. U. (2004). Issues in language learning strategy research and teaching. Electronic journal of foreign language teaching, 1(1), 14-26.

Christison, M. A., & Bassano, S. (2005). Multiple intelligences and language learning: A guidebook of theory, activities, inventories, and resources. Provo, UT: Alta Book Center Publishers.

DeCapua, A., & Wintergerst, A. C. (2005). Assessing and validating a learning styles instrument. System, 33(1), 1-16.

Dörnyei, Z. (2008). *Motivation strategies in the language classroom*. Ernst Klett Sprachen.

Dunn, R., & Griggs, S. (2003). The Dunn and Dunn learning style model and its theoretical cornerstone. Synthesis of the Dunn and Dunn Learning-Style Model Research Who, what, when, where, and so what, 1-6.

Dunn, R., Denig, S., & Lovelace, M. K. (2001). Two sides of the same coin or different strokes for different folks? Teacher Librarian, 28(3), 9-9.

Farmer, R., & Sundberg, N. D. (1986). Boredom proneness--the development and correlates of a new scale. *Journal of personality assessment*, *50*(1), 4-17.

Fleming, N., & Baume, D. (2006). Learning Styles Again: VARKing up the right tree! Educational developments, 7(4), 4.

Gardner, H. (1983). *The theory of multiple intelligences*. Heinemann.

Gardner, H. (1985). Frames of mind the theory of multiple intelligences (1st paperback ed.). New York: Basic Books.

Gardner, H. (1993). Multiple intelligences: The theory in practice. Basic books.

Gardner, H. (2003). Multiple intelligences after twenty years. *American Educational Research Association, Chicago, Illinois*, *21*, 1-15.

Gardner, H. (2004). Audiences for the theory of multiple intelligences. Teachers College Record, 106(1), 212-220.

Gardner, H. (2011). Multiple intelligences: The first thirty years. *Harvard Graduate School of Education*.

Honey, P., & Mumford, A. (1986). Using your learning styles. Chartered Institute of Personnel and Development.

Iwai, Y. (2011). The Effects of Metacognitive Reading Strategies: Pedagogical Implications for EFL/ESL Teachers. The Reading Matrix, 11(2), 150-159.

Kruk, M., & Zawodniak, J. (2018). Boredom in practical English language classes: Insights from interview data. *Interdisciplinary views on the English language, literature and culture*, 177-191.

Leaver, B., Ehrman, M. E., & Shekhtman, B. (2005). Achieving success in second language acquisition. Cambridge, England: Cambridge University Press.

Lesmes-Anel, J., Robinson, G., & Moody, S. (2001). Learning preferences and learning styles: a study of Wessex general practice registrars. British Journal of General Practice, 51(468), 559-564.

Madkour, M., & Mohamed, R. A. A. M. (2016). Identifying College Students' Multiple Intelligences to Enhance Motivation and Language Proficiency. English Language Teaching, 9(6), 92-107.

Makewa, L. N., & Ngussa, B. M. (2015). Curriculum implementation and teacher motivation: A theoretical framework. *In Handbook of Research on Enhancing Teacher Education with Advanced Instructional Technologies* (pp. 244-258). IGI Global.

Mérida, J. A. M., & Jorge, M. L. M. (2007). La concepción de la inteligencia en los planteamientos de Gardner (1983) y Sternberg (1985) como desarrollos teóricos precursores de la noción de inteligencia emocional. Revista de Historia de la Psicología, 28(4), 67-92.

Ministerio de Educación. (2016, 08). Educacion.gob.ec. Retrieved from

https://educacion.gob.ec/wp-content/uploads/downloads/2016/08/EFL-for-Subnivel-

BGU-final-ok.pdf

Norris, J. M., & Ortega, L. (2006). The value and practice of research synthesis for language

learning and teaching. In J. M. Norris & L. Ortega (Eds.), Synthesizing research on

language learning and teaching (pp. 3-52). Amsterdam, The Netherlands: John

Nyikos, M., & Oxford, R. (1993). A factor analytic study of language-learning strategy use:

Interpretations from information-processing theory and social psychology. The Modern

Language Journal, 77(1), 11-22

Pakarinen, E., Kiuru, N., Lerkkanen, M. K., Poikkeus, A. M., Siekkinen, M., & Nurmi, J. E.

(2010). Classroom organization and teacher stress predict learning motivation in

kindergarten children. European Journal of Psychology of Education, 25(3), 281-300.

Peng, S. (2019). A Study of the Differences between EFL and ESL for English Classroom

Teaching in China. IRA International Journal of Education and Multidisciplinary Studies,

15(1), 32-35.doi: http://dx.doi.org/10.21013/jems.v15.n1.p4

Reid, J. M. (1995). Learning styles in the ESL/EFL classroom. Heinle & Heinle Publishers,

International Thomson Publishing Book Distribution Center, 7625 Empire Drive,

Florence, KY 41042.

Rosero, M. (2014, 03 26). El déficit de profesores de inglés es un problema que viene desde

1950. El Comercio.

Sánchez, J. S., Ortiz, J. S., Velasco, P. M., Quevedo, W. X., Naranjo, C. A., Ayala, P., ... &

Andaluz, V. H. (2018, June). Virtual Environments to Stimulate Skills in the Early

Childhood Education Stage. In *International Conference on Augmented Reality, Virtual Reality and Computer Graphics* (pp. 285-297). Springer, Cham.

Sermanshahi, E. (2012). Effect of social context on motivation and achievement of EFL students. LAP Lambert Academic Publishing.

Shanzhi, Y. (2002). On the Categorical Features of Negative Marker and the Acquisition Sequence of Negative Sentence [J]. Foreign Languages and Their Teaching, 8.

Sternberg, R. J. (1986). A triarchic theory of human intelligence. In Human assessment: Cognition and motivation (pp. 43-44). Springer, Dordrecht.

Tawalbeh, T. E. I. (2016). Investigating EFL Learners' Multiple Intelligences in the Preparatory Year at Taif University. *Theory & Practice in Language Studies*, *6* (7).

Verbrachte, M. (2020, 11 19). EF. Retrieved 11 11, 2021, from https://www.ef.com.ec/blog/language/ecuador-queda-en-el-puesto-81-en-el-ranking-de-ingles-ef-epi/

Worrell, F. C. & Noguera, P. A. (2011). Educational Attainment of Black Males. The Caribbean Journal of Teacher Education & Pedagogy, 2, 7-23. The University of Trinidad & Tobago.

Appendices

Appendix 1

List of primary studies for analysis

Abdullah, M., Daffa, W. H., Bashmail, R. M., Alzahrani, M., & Sadik, M. (2015). The impact of learning styles on Learner's performance in E-learning environment. International Journal of Advanced Computer Science and Applications, 6(9), 24-31.

Ansarin, A. A., & Khatibi, S. P. (2018). The Relationship between Multiple Intelligences and Language Learning Strategies and Gender. English Language Teaching, 11(5), 84-94.

Ayasrah, S. M., & Aljarrah, A. H. (2020). The Differences in Multiple Intelligences between the Students of Jordan University of Science and Technology. International Journal of Higher Education, 9(4), 35-45.

Behjat, F. (2012). Interpersonal and intrapersonal intelligences: Do they really work in foreign-language learning? Procedia-Social and Behavioral Sciences, 32, 351-355.

Ebrahimi, M. R., Khoshsima, H., Zare-Behtash, E., & Heydarnejad, T. (2018). Emotional Intelligence Enhancement Impacts on Developing Speaking Skill among EFL Learners: An Empirical Study. International Journal of Instruction, 11(4), 625-640.

González-Treviño, I. M., Núñez-Rocha, G. M., Valencia-Hernández, J. M., & Arrona-Palacios, A. (2020). Assessment of multiple intelligences in elementary school students in Mexico: An exploratory study. Heliyon, 6(4), e03777.

Gündüz, Z. E., & Ünal, I. D. (2016). Effects of Multiple Intelligences Activities on Writing Skill Development in an EFL Context. Universal Journal of Educational Research, 4(7), 1687-1697.

Mirzaei, A., Rahimi Domakani, M., & Heidari, N. (2014). Exploring the relationship between reading strategy use and multiple intelligences among successful L2 readers. Educational Psychology, 34(2), 208-230.

Mora, J., Quito, I., & Sarmiento, L. (2017). A case study of learning styles of older adults attending an English course. Maskana, 8(2), 1-15.

Razmjoo, S. A. (2008). On the relationship between multiple intelligences and language proficiency. The Reading Matrix, 8(2).

Sadeghi, K., & Farzizadeh, B. (2012). The relationship between multiple intelligences and writing ability of Iranian EFL learners. English Language Teaching, 5(11), 136-142.

Saricaoglu, A., & Arikan, A. (2009). A Study of Multiple Intelligences, Foreign Language Success and Some Selected Variables. Online Submission.

Sener, S., & Çokçaliskan, A. (2018). An investigation between multiple intelligences and learning styles. Journal of Education and Training Studies, 6(2), 125-132.

Sogutlu, E. (2018). Multiple intelligences and foreign language learning: Possible relationship. In Proceedings of the 3rd International Conference on New Findings in Humanities and Social Sciences, 1-10.

Yavich, R., & Rotnitsky, I. (2020). Multiple Intelligences and Success in School Studies. International Journal of Higher Education, 9(6), 107-117.

Appendix 2

Students' benefits if teachers take into account MI and/or LS in the EFL learning process

Name of the Study	Author/s	Year of Publication	Students' Benefits
The Impact of Learning Styles on Learner's Performance in E-Learning Environment	Abdullah, M., Daffa, W. H., Bashmail, R. M., Alzahrani, M., and Sadik, M.	2015	Access to better designed e-learning material, long-term remembering of information, better students' learning experience, developing more effective study habits.
The Relationship Between Multiple Intelligences and Language Learning Strategies and Gender	Ansarin, A. A., and Khatibi, S. P.	2018	More student-centered activities, effective learning, successful strategy use.
The Differences in Multiple Intelligences between the Students of Jordan University of Science and Technology	Ayasrah, S. M., and Aljarrah, A. H.	2020	Better programs that could enhance students' academic achievement.
The One and the Many: Enduring Legacies of Spearman and Thurstone on Intelligence Test Score Interpretation	Beaujean, A. A., and Benson, N. F.	2019	No benefits
Interpersonal and intrapersonal intelligences: Do they really work in foreign-language learning?	Behjat, F.	2012	More successful students.
Emotional Intelligence			

Enhancement Impacts on Developing Speaking Skill among EFL Learners: an Empirical Study	Ebrahimi, M. R., Khoshsima, H., Zare-Behtash, E., and Heydarnejad, T.	2018	Improvement in the Speaking Skill.
Learning Styles Again: VARKing up the right tree!	Fleming, N., and Baume, D.	2006	More flexibility for learners to change their behavior.
Assessment of multiple intelligences in elementary school students in Mexico: An exploratory study	González-Treviño, I. M., Núñez-Rocha, G. M., Valencia-Hernández, J. M., and Arrona-Palacios, A.	2020	Learners can be better understood by educators.
Effects of Multiple Intelligences Activities on Writing Skill Development in an EFL Context	Gündüz, Z. E., and Ünal, I. D.	2016	Students' cultures can be taken into account, more children's interest in class, learners with a low school achievement can receive help, students can be better guided by their teachers to succeed.
La concepción de la inteligencia en los planteamientos de Gardner (1983) y Sternberg (1985) como desarrollos teóricos precursores de la noción de inteligencia emocional	Mérida, J. A. M., and Jorge, M. L. M.	2007	No benefits
A case study of learning styles of older adults attending an English course	Mora, J., Quito, I., & Sarmiento, L.	2017	Improvement in grades, attitude, discipline; more motivation, easy and faster learning.
On the Relationship between Multiple Intelligences and	Razmjoo, S. A.	2008	No benefits

Language Proficiency			
The Relationship between Multiple Intelligences and Writing Ability of Iranian EFL Learners	Sadeghi, K., and Farzizadeh, B.	2012	More equality for students, life-long learning.
A study of Multiple Intelligences, Foreign Language success and some selected variables	Saricaoglu, A., and Arikan, A.	2009	Increased learners' achievement, better students' attitudes with English, personalized educational planning.
An Investigation between Multiple Intelligences and Learning Styles	Sener, S., and Çokçaliskan, A.	2018	Students' goals can be taken into account, student-centered activities, learners can identify their strengths and weaknesses, learners can develop self-regulation, self-confidence, self-respect, and a good attitude towards learning; students could feel satisfied with their learning and relaxed in class.
Multiple Intelligences and Foreign Language Learning: Possible Relationship	Sogutlu, E.	2018	Individualized treatment of students, presentation of valuable topics in different ways, more learners can be taken into account, better understanding of the content.
A Triarchic Theory of Human Intelligence	Sternberg, R. J.	1986	No benefits
Multiple Intelligences and Success in School Studies	Yavich, R., and Rotnitsky, I.	2020	Learners can receive better help to become successful, increase in students' motivation, improvement of students' skills and strengths, better teaching.

Appendix 3

Types of students' benefits if teachers consider MI and/or LS in the EFL learning process

Articles		Short-term Benefits	Long-term Benefits	No Benefits
Name	**Year**			
Abdullah, M., Daffa, W. H., Bashmail, R. M., Alzahrani, M., and Sadik, M.	2015	Access to better designed e-learning material, better students' learning experience.	Long-term remembering of information, developing more effective study habits.	
Ansarin, A. A., and Khatibi, S. P.	2018	More student-centered activities, effective learning, successful strategy use.	Effective learning, successful strategy use.	
Ayasrah, S. M., and Aljarrah, A. H.	2020	X	Better programs that could enhance students' academic achievement.	
Beaujean, A. A., and Benson, N. F.	2019	X	X	X
Behjat, F.	2012	More successful students.	More successful students.	
Ebrahimi, M. R., Khoshsima, H., Zare-Behtash, E., and Heydarnejad, T.	2018	X	Improvement of the Speaking Skill.	
Fleming, N., and Baume, D.	2006		X	

		More flexibility for learners to change their learning behavior.		
González-Treviño, I. M., Núñez-Rocha, G. M., Valencia-Hernández, J. M., and Arrona-Palacios, A.	2020	Learners can be better understood by educators.	Learners can be better understood by educators.	
Gündüz, Z. E., and Ünal, I. D.	2016	Students' cultures can be taken into account, more children's interest in class, learners with a low school achievement can receive help, students can be better guided by their teachers to succeed.	Students' cultures can be taken into account, more children's interest in class.	
Mérida, J. A. M., and Jorge, M. L. M.	2007	X	X	X
Mora, J., Quito, I., & Sarmiento, L.	2017	Improvement in grades, attitude, discipline; more motivation, easy and faster learning.	X	
Razmjoo, S. A.	2008	X	X	X
Sadeghi, K., and Farzizadeh, B.	2012	More equality for students.	More equality for students, life-long learning.	
Saricaoglu, A., and Arikan, A.	2009	Increased learners' achievement, better students' attitudes with	Increased learners' achievement, better	

		English, personalized educational planning.	students' attitudes with English.	
Sener, S., and Çokçaliskan, A.	2018	Students' goals can be taken into account, student-centered activities, learners can identify their strengths and weaknesses, students could feel satisfied with their learning and relaxed in class.	Learners can identify their strengths and weaknesses, learners can develop self-regulation, self-confidence, self-respect, and a good attitude towards learning.	
Sogutlu, E.	2018	Individualized treatment of students, presentation of valuable topics in different ways, more learners can be taken into account, better understanding of the content.	X	
Sternberg, R. J.	1986	X	X	X
Yavich, R., and Rotnitsky, I.	2020	Learners can receive better help to become successful, increase in students' motivation, better teaching.	Improvement of students' skills and strengths.	
Total		12	11	4

Appendix 4

Influence on students' EFL academic performance if educators take into consideration MI and/or LS

Articles		Influence on Students' Academic Performance		
Name	**Year**	**Positive**	**Negative**	**No Influence**
Abdullah, M., Daffa, W. H., Bashmail, R. M., Alzahrani, M., and Sadik, M.	2015	Between Learning Styles and academic performance.		
Ansarin, A. A., and Khatibi, S. P.	2018	Between MI and academic performance.		
Ayasrah, S. M., and Aljarrah, A. H.	2020			X
Behjat, F.	2012	Between interpersonal intelligence and reading, comprehension, and grammar and between intrapersonal intelligence and academic performance.		
Ebrahimi, M. R., Khoshsima, H., Zare-Behtash, E., and Heydarnejad, T.	2018	Between emotional intelligence and speaking.		
Fleming, N., and Baume, D.	2006	Between Learning Styles and		

		academic performance.		
González-Treviño, I. M., Núñez-Rocha, G. M., Valencia-Hernández, J. M., and Arrona-Palacios, A.	2020	Between interpersonal intelligence and academic performance.		
Gündüz, Z. E., and Ünal, I. D.	2016	Between MI and writing.		
Mérida, J. A. M., and Jorge, M. L. M.	2007			X
Mora, J., Quito, I., & Sarmiento, L.	2017	Between Learning Styles and academic performance.		
Razmjoo, S. A.	2008			X
Sadeghi, K., and Farzizadeh, B.	2012			X
Saricaoglu, A., and Arikan, A.	2009	Between musical intelligence and writing.	Between bodily-kinesthetic, spatial, intrapersonal intelligences and Grammar).	
Sener, S., and Çokçaliskan, A.	2018	Between MI and Learning Styles with academic performance.		

Sogutlu, E.	2018	Between vocabulary and logical intelligence.	Between interpersonal and bodily intelligences with grammar and vocabulary.	
Sternberg, R. J.	1986			X
Yavich, R., and Rotnitsky, I.	2020	Between logical mathematical intelligence and academic performance.		
Total		12	2	5