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Learning styles and their application to second language acquisition

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ABSTRACT

This paper aims to establish a comprehensive theoretical framework for second language acquisition, with a specific focus on analysing the relationship between learning and the acquisition of a second language. To facilitate this analysis, the paper will explore the relevant terminology associated with language acquisition and examine a range of variable factors that influence language learning. Subsequently, the study will delve into an analysis of various learning methods, which will be practically applied through the utilization of a previously developed questionnaire by Reid (1987). This questionnaire will be administered to learners of different ages, enabling us to gather valuable insights into their preferred and effective learning styles for acquiring English. By combining theoretical frameworks and practical observations, this paper aims to contribute to a deeper understanding of second language acquisition and provide recommendations for effective English language instruction.

Keywords: learning, second language acquisition, learning styles, language learning, variable factors, theoretical framework

El objetivo de este trabajo es establecer un marco teórico integral para la adquisición de un segundo idioma, centrándose en analizar la relación entre el aprendizaje y la adquisición de dicha lengua. Para facilitar este análisis, se explorará la terminología relevante asociada a la adquisición del lenguaje y una variedad de factores variables que influyen en el aprendizaje de idiomas. A continuación, se realizará un análisis de diversos métodos de aprendizaje, aplicándolos de manera práctica mediante un cuestionario desarrollado previamente por Reid (1987). Este cuestionario ha sido proporcionado a aprendices de distintas edades, lo que nos ha permitido obtener información valiosa sobre sus estilos de aprendizaje preferidos y efectivos para adquirir el inglés como segunda lengua. Al combinar marcos teóricos y observaciones prácticas, este trabajo pretende contribuir a una comprensión más profunda de la adquisición de un segundo idioma y ofrecer recomendaciones para una enseñanza efectiva del inglés.

Palabras clave: aprendizaje, adquisición de una segunda lengua, estilos de aprendizaje, aprendizaje de idiomas, factores variables, marco teórico

CONTENT

1. INTRODUCTION

The acquisition of a second language has been a subject of extensive study and analysis for many years, primarily due to its significant importance in the field of linguistics. However, one crucial aspect of language learning that cannot be overlooked is the study of learning styles. Learning styles serve as the pathways through which language acquisition takes place. Understanding the different types of learning styles not only helps us determine the most suitable learning method for individuals but also enhances overall effectiveness in language learning.

The preference for a learning style is a multifaceted construct that is influenced by various factors, ranging from cultural to individual differences. When it comes to teaching a second language, which typically starts in early childhood, the significance of language acquisition cannot be overstated. Consequently, it becomes crucial to analyse different learning styles to identify the most practical and effective approaches. By understanding and considering these styles, language instruction can be tailored to meet the needs and preferences of learners, optimizing their language learning experience.

This paper aims to delve into the terminology related to language acquisition, explore the various factors that influence language learning, examine existing theories on learning styles and strategies, and ultimately, gain insights into the learning preferences of language learners. By exploring these aspects comprehensively, this project seeks to underscore their significance and shed light on how they impact the acquisition of a language. Through this analysis, a deeper understanding of these elements will be achieved, providing valuable insights into effective language learning methodologies.

This work will focus on four key aspects. Firstly, it will provide a theoretical analysis of the fundamental concepts related to language acquisition. Understanding these terms will lay the groundwork for delving into the second aspect, which involves a more specific examination of the factors that impact language learning. Secondly, it will explore the diverse elements that influence language learning, acknowledging that these factors are variable and differ for each individual student. Thirdly, the work will delve into a theoretical analysis of learning styles and strategies, setting the stage for the final aspect of the study. Finally, the preferred teaching methods of select students will be analysed using Reid's

questionnaire (1987). By examining their learning styles, valuable insights can be obtained, leading to conclusions about the current English teaching system and potential improvements that can be made to enhance English language instruction.

2.   TERMINOLOGY - CONCEPTUAL APPROACH

To begin with this theoretical part, we will look at different concepts related to second language acquisition.

2.1   Language: definition and functions

Language is an inherent part of human beings, our means of communication. Its importance is undeniable. However, despite its unquestionable importance, its definition is slightly complex. How can we define what language is?

According to Merriam Webster, language is 'a systematic means of communicating ideas or feelings by the use of conventionalized signs, sounds, gestures, or marks having understood meanings.' To add further detail, we can look at Steven Pinker's idea in 'The Language Instinct' (1994) when he said that the acquisition of language is a complex and specialized skill that emerges spontaneously in children without the need for conscious effort or formal instruction. It is an innate capacity that is deployed without awareness of its underlying logic and is qualitatively similar across individuals. Additionally, this skill is distinct from more general abilities to process information or exhibit intelligence.

The author prefers to use the term "instinct" to describe the ability of people to speak, as it suggests that this ability is innate, like a spider's instinct to spin webs. Just as spiders do not need to be taught how to spin webs and do not require specialized education or training, people possess the innate capacity to speak due to their brain's capacity to produce and comprehend language. While there are differences between webs and words, the author encourages readers to view language as an instinctual and natural ability that all humans possess.

He argues that language is an innate ability that we possess by our simple existence. However, this idea of language as instinct was created by Charles Darwin in 1871, although in this century the main promoter of this theory is Noam Chomsky. According to him, the brain must contain a mental grammar programme and children develop it quickly and without instruction, so that we are innately born with a Universal Grammar.

Definitions of language are wide-ranging, some more detailed, and some more general. A good summary is listed in this table given by Douglas Brown in 'Principles of language and teaching' (p. 22):

Language	Subfields of Research and Inquiry
1. …is systematic	phonetics; phonology; morphology; syntax; discourse analysis; lexical analysis
2. …uses arbitrary symbols	semiotics; semantics; philosophy & history of language; psycholinguistics
3. …uses symbols that are primarily vocal but may also be visual	phonetics; phonology; writing systems; orthography; nonverbal communication
4. …uses symbols that have conventionalized meanings	semantics; pragmatics; sociolinguistics; psycholinguistics; cognitive linguistics
5. …is used for communication	sentence processing; pragmatics; discourse analysis; conversation analysis
6. …operates in a speech community	sociolinguistics; sociocultural analysis; or culture pragmatics; dialectology; bilingualism
7. …is essentially human, but not limited to humans	innateness; genetics; neurolinguistics; animal communication
8. …has universal characteristics	Universal Grammar; innateness; emergentism; neurolinguistics; cross-cultural analysis

The characteristics of language can be summarized as follows: Language is a systematic means of communication that utilizes symbols, which can be vocal or visual. It is predominantly used by humans, although it may extend beyond the human condition. Lastly, language exhibits universal traits that facilitate effective communication.

Halliday (1973) identified seven functions of language: instrumental, regulatory, representational, interactional, personal, heuristic, and imaginative. These functions can coexist within a sentence, allowing for simultaneous expression of different purposes in communication.

2.2   Acquisition:

- <u>First language acquisition</u>

First language acquisition refers to the development of learning our native language, from birth, following a developmental stage (from babbling to sentence construction). There are a few theories to explain the transition from not knowing a language when we were born

to being able to produce an infinite number of structures. The first is the Behavioural theory. According to this theory, when we are born, we are like a blank page or tabula rasa, and our learning is acquired through our experiences and the environment around us. When a child's linguistic utterance, in this case, is rewarded, this behaviour is reinforced and encouraged, so it is likely to become frequent. B.F. Skinner (1957) also argues that reinforcement is a key factor in the maintenance of behaviour; if a behaviour is rewarded, it is likely to be maintained and fixed. Conversely, if a behaviour is punished, it will gradually disappear, weakened by the absence of stimulating positive reinforcement. Therefore, this theory gives importance to the environment in which a person grows up, as it is a key factor in the development of language skills. The second main approach is the Nativist theory. According to this theory, the acquisition of language and all that it implies is an innate characteristic; human beings are biologically determined to acquire language. Chomsky, the promoter of this theory, considers that it was more than likely because it would somehow explain why a child is able to acquire a language in a short time. Humans have a Language Acquisition Device (LAD) in our brains, and within it are the grammatical universals.

▪ <u>Second language acquisition</u>

Since this term will be developed in depth in section 4, we will limit the definition to the simple but concise definition provided by Muriel Saville-Troike (2010): 'Second Language Acquisition (SLA) refers both to the study of individuals and groups who are learning a language after learning their first one as young child, and to the process of learning that language. The additional language is called a second language (L2), even though it may be the third, fourth, or tenth to be acquired. It is also commonly called a target language (TL), which refers to any language that is the aim or goal of learning.' (pp. 1-6).

2.3   Learning

Unlike acquisition, it is the conscious knowledge of a language. According to Brown (1987) learning is 'acquiring or getting of knowledge of a subject or a skill by study, experience, or instruction' (p. 6). Some conclusions that can be extracted from Brown's definition are the following: Learning is acquisition and retention of information which involves active and conscious focus. In addition, learning is a change in behaviour. Brown (1987) outlines eight different types of learning:

1. Signal learning. 'The individual learns to make a general diffuse response to a signal.' (Vijaylakshmi, Kothari, Choudhary, 2016)

2. Stimulus-response learning. 'The learner makes a response to a "discriminated" stimulus.'

3. Chaining. 'Learning a chain of two or more stimulus-response connections.'

4. Verbal association. 'Attaching meaning to verbal/nonverbal chains.'

5. Multiple discrimination. 'Learning to make different responses to many varying stimuli, which may resemble each other.'

6. Concept learning. 'Learning to make a common response to a class of stimuli even though the individual members of that class may differ widely from each other.'

7. Principle learning. 'Learning a chain of two or more concepts, a cluster of related concepts.'

8. Problem solving. 'Previously acquired concepts and principles are combined in a conscious focus on an unresolved or ambiguous set of events.' (p. 93)

3.   INDIVIDUAL FACTORS IN SECOND LANGUAGE LEARNING

It should be remembered that SLA is a process involving several factors, one of which is personality. This is an individual factor, as it is specific and is different in individuals, so all the factors we will analyse in this section are variable. The study of these elements is highly important to understand the process of foreign language acquisition and in addition because they also determine how learners will decide to learn, whether in second language or in any other aspect. This aspect of affective factor is closely linked to the psychological field and is related to emotions, feelings, manner, mood and so on. All these aspects, which will be developed below, are key points when acquiring a second language.

3.1   Age

If we want to compare how acquisition develops considering the variable parameter of age, we must first consider other factors. As Scovel stated we cannot compare a child's first language acquisition with an adult's second language acquisition, (in Brown, 2014, p. 53).

Therefore, according to Brown, we should compare the second language acquisition of a child and that of an adult. Brown adds that the main differences in a child's second language acquisition depending on his or her age are mainly due to cognitive and affective factors.

To address this factor, it is inevitable to begin by making special mention of the critical period, a phenomenon analysed and studied by various authors due to its high importance in second language acquisition. Brown defined it as a biologically determined period of life during which a language can be acquired more easily and after which it will be more difficult to acquire (p. 54). This idea in which age is a determining factor in the acquisition of a second language, is called the Critical Period Hypothesis (CPH).

Lenneberg (1967) introduced this concept for the first time and claimed that the critical period goes from the age of two to puberty (in Singleton, 2006, p. 49). At the beginning, it must be highlighted that this notion of critical period was only related to first language acquisition (Clark, 2009, as cited in Brown, 2014). However, new research led to its application in a second language acquisition context. Lenneberg believes that a learner is more likely to have a foreign accent if he or she learns a language after the critical period,

so there is a greater likelihood of having a more native accent if the language is acquired before the critical period.

However, according to Saville-Troike (2010) there is evidence that adolescents and adults learn faster in the early stages, for example, having better memory for vocabulary and having greater analytical ability, since they can analyse grammatical rules (p. 83). Nevertheless, other linguists consider that it is precisely this lack of analytical ability that is a success for children in learning: 'younger learners are probably more successful in informal and naturalistic L2 learning contexts, and older learners in formal instructional setting.' (p. 84).

3.2   Sex

According to Saville-Troike (2010), there is a general belief that in many Western countries' women tend to learn L2 better than men. The author adds that it may be a socially constructed belief based on cultural and socio-psychological influences and conditioning factors (p. 84).

Based on research conducted by Aslan (2009), who thoroughly examined and analyzed the topic, it was determined that the sex of individuals plays a role in influencing learning strategies (p. 115). Gender-related differences in language acquisition are so significant that Swann (1989) made an intriguing observation: contrary to the stereotype that women are more talkative, it is actually men who tend to dominate conversations. Supporting this, Swann adds, "men have been found to use more interruptions... and simply to talk more than women" (as cited in Broadbridge, 2003, p. 13).

Addressing this difference specifically in second language acquisition, Gascoigne (2003) found that, in his study of second language learners, the results did not differ much: 'there may be diverging male and female L2 interaction styles and that in many respects the L2 styles mirror those identified in the Ll research: females tend to use more hesitant or mitigating speech, females employ more minimal responses to signal their participation in a co-constructed dialogue, and males produce more conversation leads.' (p. 84)

Based on multiple studies, the disparities in second language acquisition based on gender can potentially be attributed not only to socialization but also to a form of reinforcement that takes place within educational environments (O'Leary, 1989, in Lightbown & Spada, 2013). Therefore, we have included this variable in our study on factors influencing learning, considering the wide range of research conducted and its impact on L2 acquisition. It is incumbent upon educators to be mindful of reinforcing such situations that can impact learners' language acquisition, and to develop instructional activities that promote a fully equitable learning environment, irrespective of gender.

3.3   Culture

To fully grasp the complex connection between culture and Second Language Acquisition (SLA), it becomes paramount to establish an all-encompassing understanding of culture. By turning to an academic definition, we find that the Merriam Webster's dictionary defines culture as the customary beliefs, social structures, and material characteristics of a particular racial, religious, or social group. It further encompasses the distinctive aspects of daily life, such as pastimes or a way of life, that are shared by individuals within a specific location or era.

Gleason (1961) argued that language serves as a symbolic representation of culture, extending beyond its role as a mere cultural product (in Lai, 2006, p. 2). Language and culture are inseparable entities, making it impossible to study one without considering the other. Condon E.C. (in Kuo, M., 2006) highlighted that local individuals engaged in habitual actions contribute to the formation of shared stereotypes, which significantly influence our thinking, communication, and interactions with others. Cultural differences are also reflected in a country's general education system, thereby impacting the English language teaching system as well. For example, in China, the teachings of philosopher Confucius exert a profound influence, shaping teaching methods, and consequently, the scope and background of SLA instruction.

My firsthand experience pursuing an English degree in an Asian nation, specifically South Korea, has reinforced my conviction that a country's culture plays a pivotal role in shaping language acquisition. Remarkably, I noticed that students exhibited heightened self-awareness and a reluctance to engage in verbal communication using a second language.

They often displayed shyness and a sense of insecurity, despite possessing a commendable proficiency in the language. This hesitancy can be attributed to the societal expectations and norms prevalent in the country, which exert significant social pressure on individuals to excel academically across all disciplines and obtain a university degree. Education and knowledge are deeply revered as the fundamental keys to success in this technologically advanced Asian nation.

This is precisely why incorporating the cultural context of the target language into the learning process can alleviate comprehension difficulties and enhance the teaching environment. To achieve this objective, teachers can integrate activities that incorporate proverbs and culturally relevant learning materials. Moreover, incorporating historical, social, and cultural content not only fosters a desire to learn but also shifts the focus away from merely studying the language itself. Hence, I consider the cultural aspect as a variable factor that varies for each student and should be consistently analysed and taken into account without neglecting its significance.

3.4   Motivation

Motivation is considered one of the key factors in learning, as it affects the learner's input and intake. Brown (2010) described it as 'the extent to which you make choices about goals to pursue and the effort you will devote to that pursuit.' (p. 72). In 1970, Jakobovits divided the affective factors into four, which are important for the success or failure of foreign language learning (in Ni, H., 2012). These factors are aptitude, intelligence, motivation, and other factors, which he listed in a table with a percentage for each factor.

Aptitude	33%
Intelligence	20%
Perseverance or motivation	33%
Other factors	14%

Motivation has been defined over the decades in a variety of ways, which can be gathered from different perspectives.

- The behavioural perspective considers motivation to be the anticipation of reward; we act in anticipation of reward.
- The cognitive perspective considers that motivation emphasises individual decisions, as it is the choice of experience and the degree of effort. In other words, it is the driving force behind the decisions we make.
- The constructivist perspective considers that the aforementioned choice of effort is framed within a cultural and social context, so, as Dörnyei & Ushioda pointed out, motivation is derived from our interaction and situation with others, and with our self-determination (as in Brown, D., 1987)

These three perspectives can be understood within the framework of understanding second language acquisition: As Brown wrote, a person who is learning a second language (L2) is motivated because they perceive the value or reward of knowing a language (p. 142). In turn, they choose to learn this knowledge, it is an individual choice. Finally, the place in which this choice is made is in a social context in which knowledge of a foreign language is increasingly valued.

3.5   Risk-taking

Brown considers that a characteristic of a good language learner is his or her ability to make intelligent guesses, something which, according to the author, cannot be done without a considerable level of risk-taking. 'Learners have to be able to gamble a bit, to be willing to try out hunches about the language and take the risk of being wrong.' (p.149).

On the other hand, Beebe (in Brown, D., 1987) made some considerations that may cause risk-taking to be impaired, mainly due to issues caused by what others may think (a teasing from a peer) or a bad mark in an exam. Furthermore, outside the field of education, an important aspect is also the external perspective that our actions can provoke. However, to be a good learner, it is not necessary to be an extreme risk-taker, but to be a 'moderate risk-taker', as Beebe put it 'they do not take wild, frivolous risks or enter into no-win situations'.

3.6   Inhibition

Brown argued that all people tend to build up a series of defences to protect their ego, which is something that will be acquired gradually, starting from an early age, when he or she will begin to distinguish him or herself from other people. Then, according to him, adolescence creates a series of defensive inhibitions mainly due to the changes they go through, mainly to protect their self-esteem. Brown goes on to add that 'the process of building defenses continues into adulthood. Some people— those with higher self-esteem and ego strength—are more able to withstand threats to their existence, and thus their defenses are lower. Those with weaker self-esteem maintain stronger "walls" of inhibition to protect what is self-perceived to be a weak or fragile ego or a lack of self-efficacy'. (p. 148).

Based on these observations, it can be deduced that inhibition is closely tied to a reluctance to take risks, thereby hindering language learning. As Brown stated, his assertion is supported by Alexander Guiora's notable study conducted in 1972, where he found that inhibition significantly influences the successful progression of language acquisition, particularly in the realms of speaking and pronunciation. Hence, inhibition is recognized as a crucial factor that impacts the development of language learning and should be duly acknowledged when instructing a second language (L2).

3.7   Affective factors: anxiety, self-steem, extroversion and introversion

Krathwohl et al, (1964) defined affective domain as follows: 'The affective domain describes learning objectives that emphasize a feeling tone, an emotion, or a degree of acceptance or rejection. Affective objectives vary from simple attention to selected phenomena to complex but internally consistent qualities of character and conscience.' (in Brown, D., 1987).

Kratwohl provided an extensive definition of the affective domain, explained in Bloom's Taxonomy. In the taxonomy, the internalization of affectivity is divided into five stages.

I. Receiving. Emotional development begins when we are aware of the existence of certain material ideas, what surrounds us, and we can perceive objects, people and so on, and to be able to accept them.

II. Respond. This stage consists of one's own commitment to an object, people, idea, and context, among others, by the active and voluntary response and the subsequent satisfactory response received to that commitment.

III. Valuing. In this stage, we observe the value of an object, individual or behaviour. When we engage beliefs, they are internalised to the extent that we are convinced of them.

IV. Organization. In this stage our values can now be organised into a belief system.

V. Self-identity. Finally, in this stage, a kind of personal development takes place as we conceptualize according to our value system and act in a coherent way along the same lines as what we have internalized.

There is a clear connection with language as it is part of human behaviour, as we will see below. During the 1970s, affective factors became more important in second language acquisition. This is a study that involves a connection with the psychological field.

3.7.1 Anxiety

To begin with, it is defined by the American Psychological Association (APA) as 'an emotion characterized by apprehension and somatic symptoms of tension in which an individual anticipates impending danger, catastrophe, or misfortune.' In addition, some of the physical symptoms it causes are muscle tension, accelerated breathing, and the heart begins to beat faster.

The APA adds an important distinction between fear and anxiety, because although the two are often used interchangeably, they are totally different; anxiety is the set of physiological and mental manifestations previously noted, oriented towards a future event or occurrence, usually with a prolonged action, and usually in the face of a diffuse threat. Fear, however, is a specific reaction to an identifiable threat and produces short-term responses.

Language anxiety, specifically related to second language acquisition, is a significant factor that directly impacts language learning. MacIntyre and Gardner define language anxiety as a feeling of tension and apprehension specifically associated with speaking, listening, and learning in a second language context. This type of anxiety is referred to as "situation-specific anxiety" since it is specific to particular situations and times. Horwitz and Young approached language anxiety from two perspectives: as a subtype of anxiety and as a specific form of anxiety triggered by language learning.

Language anxiety poses a major obstacle to effective learning as it inhibits students and hinders their ability to participate naturally in the classroom. Students often feel nervous and fearful, leading to a reluctance to engage. To address this issue, it is crucial to identify the source of the learner's anxiety, which can stem from various factors such as the student, the teacher, or the learning environment. Consequently, it is important not to overlook this factor, and teachers should be able to analyse and address potential sources of anxiety, including their own classroom performance and interactions with students (both quoted in Brown, D., 1987).

3.7.2 Self-esteem

Rubio (2007) provides a definition of this factor as a psychological and social phenomenon in which individuals assess their competence and self-worth based on a set of values (p. 5). Self-confidence is a crucial factor not only in second language acquisition (SLA) but in any human behavior, as noted by Brown (1987). In fact, Brown emphasizes the significance of self-esteem, self-confidence, personal trust, and self-efficacy in successfully carrying out cognitive and affective activities (p. 144). This affective factor significantly impacts language learning because without it, learners are more prone to giving up, feeling vulnerable, experiencing anxiety, and participating minimally or not at all in class. Conversely, learners with self-esteem are likely to exhibit lower levels of anxiety and higher motivation. It is important to note that the level of self-esteem can vary depending on the specific aspect of self-esteem being referred to:

- Global self-esteem: It is the general self-assessment that takes place over time and through experience of certain situations. It is a relatively stable self-esteem in adulthood.

- Situational self-esteem: it is a person's self-assessment in a specific situation and can therefore vary depending on the situation.
- Task self-esteem: refers to the self-assessment of a specific task within a particular situation. For example, if we talk about an educational environment, self-conception in Maths.

In our case, we could speak of situational self-esteem when learning a second language, and we could mention task self-esteem in the assessment of a specific area, such as writing or speaking. It is a fact, as we saw earlier, that having more self-confidence will facilitate the acquisition of a second language, so the teacher should consider how to strengthen the confidence of his or her students as much as possible to make the acquisition process a successful one.

3.7.3 Extroversion and Introversion

In order to break the myth that an extrovert is the life of the party, and an introvert is quiet and reserved, Brown defined extroverted people as needing ego, self-esteem and, ultimately, a sense of fulfilment, but from an external source; they need it from the people around them, rather than being able to get it from themselves, and one of its weaknesses is the need to receive external affirmation from other people.

> 'Extroverts actually need other people in order to feel "good," and are energized by interaction with others. But extroverts are not necessarily loudmouthed and talkative, and one of their weaknesses can be a deep-seated need for affirmation from others' (p. 154).

Furthermore, an introvert has a developed inner world; according to him, these people gain fulfilment on their own, without the need for an external factor like extroverted people. Introverted people are more focused on their emotions and inner world than on their surroundings. According to Myers (2003), introverted people do not need external stimulation since they already have internal stimulation that depends mainly on them (in Altunel, V., 2015).

This factor requires attention as it is reflected in the student's behaviour and thus in the educators' reaction to them. It must also consider cultural norms, since 'it is also readily apparent that cross-cultural norms of nonverbal and verbal interaction vary widely, and what

in one culture (say, the United States) may appear as introversion is, in another culture (say, Japan), respect and politeness' (in Brown, D., 1987).

Finally, according to Ellis (2008) it is worth considering that extroversion is considered a factor that positively influences the development of basic interpersonal skills in the second language (p. 541). This is because learners who are extroverted are more likely to interact with other speakers of the L2 more frequently and with greater ease. Nevertheless, introverted learners may also have an advantage: they may find it easier to study the L2, leading to higher levels of cognitive academic language proficiency.

In other words, even if extroverted people are traditionally considered to have an easy time acquiring full language skills, the ability of introverted learners should not be underestimated or under-emphasised.

4. SECOND LANGUAGE ACQUISITION: LEARNING STRATEGIES AND LEARNING STYLES

4.1 Learning strategies

First and foremost, it is important to differentiate between learning strategies and learning styles. According to Brown, the difference between the two is that learning strategies are related to methods and techniques for achieving an end. In addition, he claims that the way we learn depends on the link between personality and cognition, known as cognitive style. Additionally, Brown explains that when cognitive styles are specifically associated with an educational environment, where emotional and physiological factors are intertwined, they are commonly referred to as learning styles (p. 112).

On the other hand, Saville-Troike defines the learning strategies. According to her, learners adopt various behaviours and techniques to aid in their second language learning process. The selection of these strategies is often a deliberate decision made by the learners, but it is heavily influenced by their motivation, cognitive style, personality, as well as the specific contexts in which they learn and the opportunities available to them for learning (p. 91).

Saville-Troike further contributes to the discussion by emphasizing that variables such as age, gender, and aptitude, which we previously discussed, also play significant roles in the selection of learning strategies. Moreover, she suggests that many learning strategies are culturally influenced, as individuals acquire their learning approaches through socialization experiences. Consequently, strategies acquired in other domains of life often transfer to language learning, even when the learning takes place within a foreign educational system and under different circumstances. Saville-Troike argues that not all strategies are equal, as some are inherently more effective than others, and their appropriateness may vary depending on the specific learning context and the aptitudes and learning styles of individuals (pp. 91-93).

According to O'Malley and Chamot (1990), second language learners employ various techniques and tools to aid in remembering and organizing language samples. These learners take charge of their own learning process by utilizing strategies, which encompass the

thoughts and actions they employ to facilitate comprehension, learning, and retention of information (in Saville-Troike, M., 2010).

Another significant definition to consider is that provided by Oxford (1990), who defines learning strategies as "specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, and more transferable to new situations" (p. 8). Oxford further categorized learning strategies into two main types. Direct strategies directly involve the target language, while indirect strategies indirectly support language learning through activities such as focusing, planning, anxiety control, and others (p. 151, cited in Lavasani, 2011).

The **direct strategies** include (Oxford, 1990):

1. Cognitive strategies. Cognitive strategies are a category of learning strategies that involve direct manipulation or transformation of the target language. These strategies, including reasoning, analysis, note-taking, summarizing, and synthesizing, enable learners to comprehend and produce new language (Richards and Lockhart, 1996, p. 64). The concept of cognitive style has been widely utilized in second language acquisition (SLA) research to explain individual differences in language learning, as highlighted by Saville-Troike. However, there are several criticisms associated with this approach.

Firstly, the validity of the concept of cognitive style has been questioned. Critics argue that cognitive style is a vague construct that lacks a clear definition and standardized measures. Secondly, some researchers have criticized the use of the FD/FI dimension in SLA research, arguing that it is oversimplified and may not accurately capture the complexity of cognitive processing. Thirdly, the metaphorical extension of cognitive style to cultural differences has been criticized as essentialist and potentially harmful. Such extensions can lead to stereotyping and discrimination against certain cultural groups. Finally, critics argue that the focus on individual cognitive styles can lead to neglecting the role of social and contextual factors in language learning. The interaction between individual cognitive styles and social factors, such as classroom instruction and language input, is complex and not well understood.

2. Memory-related strategies. These strategies 'help learners link one L2 item or concept with another but do not necessarily involve deep understanding'.

3. Compensatory strategies. It is about doing activities that revolve around specific knowledge, and which are done when we are not able to identify it exactly, e.g., using synonyms when we do not know a word.

As for the **indirect** classification:

4. Metacognitive strategies. These strategies (Purpura, 1999) have 'a significant, positive, direct effect on cognitive strategy use, providing clear evidence that metacognitive strategy use has an executive function over cognitive strategy use in task completion' (p. 61, cited by Oxford, 2001). An example of such strategies is being self-aware of one's preferred learning style.

5. Affective strategies. Dreyer and Oxford (1996), as cited in Oxford (2001, p. 14), found that characteristics such as mood identification, anxiety reduction, and deep breathing are associated with second language proficiency. However, Mullins (1992) conducted a study that revealed a negative relationship between affective strategies and proficiency as learners progressed. According to Oxford, this negative relationship might be attributed to the fact that as learners improve and attain higher levels of proficiency, they require fewer affective strategies to support their language learning process.

6. Social strategies. Social strategies, as described by Oxford (2001), are employed by learners to facilitate communication with others and enhance their understanding of the target language. Lavasani (2011) further identifies three subsets of social strategies: asking questions, cooperating with others, and empathizing with others. Among these, asking questions is regarded as particularly valuable as it enables learners to approach and comprehend meaning effectively (p. 193). These social strategies play a crucial role in fostering interaction and language acquisition in social contexts.

It should be highlighted the fact that Oxford gives some examples of each type:

- Memory strategies:
  - Applying images and sounds

- Cognitive strategies:
    - Creating structure for input and output
- Compensation strategies.
    - Overcoming limitations in speaking and writing
- Metacognitive strategies:
    - Evaluating your learning
- Affective strategies:
    - Lowering anxiety
- Social strategies:
    - Cooperating with others
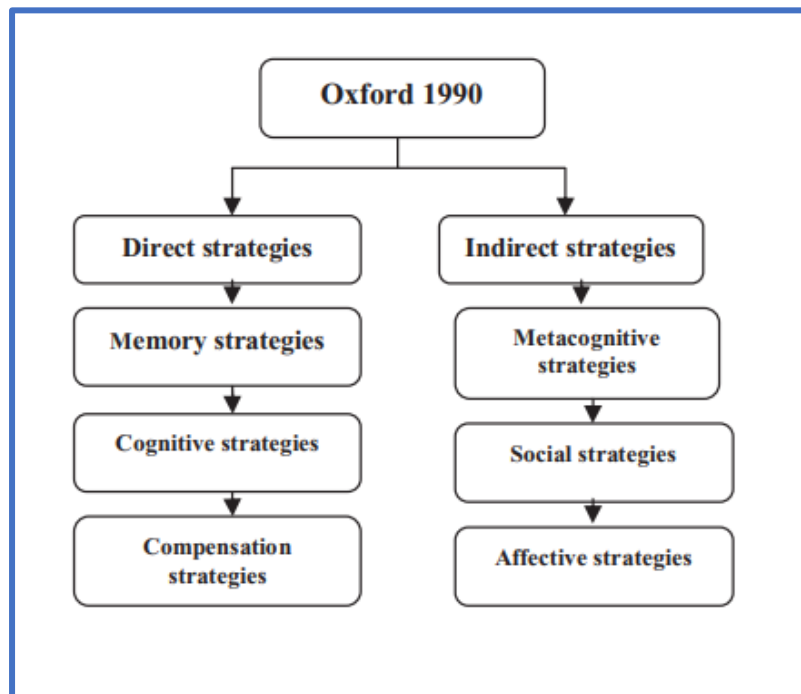
Lavasani, 2011.

O'Malley and Chamot (1990) proposed a threefold classification of learning strategies. Firstly, they identified metacognitive strategies, which involve organizing, focusing, and evaluating one's personal learning process. These strategies center around self-awareness and self-regulation of learning. Secondly, they identified cognitive strategies, which involve direct manipulation and transformation of the target language to enhance learning and comprehension. Finally, they highlighted social-affective strategies, which pertain to external social interactions with others to facilitate language learning.

Indeed, learning strategies and learning styles are interconnected, as noted by Ghani (2003). Language learners utilize a variety of strategies, encompassing specific behaviours and actions, to aid them in the learning process. These strategies are often influenced by individual learning styles, which reflect the learners' preferred approaches to learning and processing information (in Saville-Troike, M., 2010). The combination of effective learning strategies and compatible learning styles can significantly enhance language acquisition and overall learning outcomes.

4.2   Learning styles

Keefe (1979) defines learning styles as cognitive, affective, and physiological traits that represent relatively stable indicators of how learners perceive, interact with, and respond to the learning environment (as cited in Brown, D., 1987). According to Brown, learning styles are inherent characteristics that learners bring with them when acquiring a language. He further expands on this concept by describing learning styles as general attributes that depict how an individual's mind functions and their personality type. These attributes distinguish individuals from one another and are consistent and enduring tendencies or preferences within each person. Learning styles can manifest in an individual's thought processes or emotional responses and reflect a dominant pattern that characterizes their overall way of thinking and feeling. For instance, one's learning style might be exemplified by a greater inclination towards visual learning, a higher tolerance for ambiguity, or a tendency towards impulsivity compared to others.

Indeed, Brown argues that learning styles vary among individuals and are influenced by two key factors: emotions and cognition (p. 113). He further supports this claim by illustrating that cognitive style can develop from a reflective personality or reflective mood, while an impulsive style can stem from an impulsive emotional state. In other words, a person's emotional disposition and cognitive processes play a role in shaping their learning style.

In addition to the aforementioned definitions, there are various perspectives on learning styles provided by different authors. Richards and Lockhart (1996) describe learning styles as predispositions towards specific approaches to learning that are closely intertwined with individual personality types. They highlight that differences in cognitive

styles among individuals reflect the diverse ways in which people respond to various learning situations (p. 59). This perspective emphasizes the connection between learning styles and an individual's inherent preferences and tendencies when engaging in the learning process.

For many decades, classifications of learning styles have been made based on communicative, cognitive, and affective, aspects. It is a complex study because there are various definitions and classifications. To delve a little deeper into this topic, we will follow the classification followed by Brown (p. 113), who considered the factors that were related to learning styles.

4.2.1 Factors related to learning styles.

4.2.1.1 Left-Brain and Right-Brain Dominance.

To develop this aspect, Brown explains the characteristics of the left hemisphere and the right hemisphere. 'The left hemisphere is associated with logical, analytical thought, with mathematical and linear processing of information.' To describe the right hemisphere, he alludes to Urgesi & Fabbro's definition (2009) of the right hemisphere, which states that 'the right hemisphere perceives and remembers visual, tactile, and auditory images; it is more efficient in processing holistic, integrative, and emotional information'. Brown (p. 116) complete the definitions of the characteristics of both hemispheres in a table (Edwards, 1979; Torrance, 1980; Joseph, 2012) that will be presented below:

Left-Brain Dominance	Right-Brain Dominance
Relies strongly on the intellect	Uses intuitive processes
Remembers names	Remembers faces
Responds to verbal instructions and explanations	Responds to demonstrated, illustrated, or symbolic instructions
Experiments systematically and with control	Experiments randomly and with less restraint
Makes objective judgments	Makes subjective judgments
Is planned and structured	Is fluid and spontaneous
Prefers established, certain information	Is comfortable with elusive, uncertain information
Reads analytically	Reads with synthesis
Relies on language in thinking and remembering	Relies on images in thinking and remembering
Is stronger in talking, writing, and verbal communication	Is stronger in drawing, images, and manipulating objects
Prefers multiple-choice tests	Prefers open-ended questions
Controls feelings	More free with feelings
Deciphers linguistic cues, lexical, and grammatical subtleties	Interprets body language, attends to facial, nonverbal communication
Uses empirical description	Uses metaphors and verbal imagery
Favors logical problem solving	Favors intuitive problem solving

Therefore, according to previous information it can be concluded that the left hemisphere relies on the intellect, has strong skills in talking, writing and verbal communication, while the right hemisphere is more intuitive, with skills in drawing and images.

Considering the distinction between the two hemispheres is also important because it allows us to recognise different learning styles and to know which are more effective according to the individual characteristics of each learner. According to Krashen, Seliger, and Hartnett (1974), learners who exhibit a dominant left-brain preference tend to favor deductive teaching methods, whereas those with a dominant right brain preference demonstrate greater success with inductive techniques (in Brown, D., 1987, p. 117).

4.2.1.2 Ambiguity Tolerance

Brown believes that people who are ambiguity tolerant (AT) are open-minded and can therefore tolerate ideas that are contrary to their own personal beliefs or ideologies. The

opposite of the ambiguity intolerant (AI) people who are more dogmatic and they are oppose ideas that are contrary to their own. In addition, he adds that both types have positive and negative points.

A positive point that AT people have, is that being open-minded and able to contemplate different possibilities allows them to succeed in language acquisition, as there is a great deal of seemingly contradictory information that can be found in the language. A disadvantage of AT is that, in case they adopt an accept-all stance, they may 'inefficiently subsuming necessary facts into their cognitive organisational structure'. (p. 118).

As for AI, their ability to be averse to any kind of idea allows them not to accept any possibility that comes their way, which makes them more selective about the ideas that are presented to them. However, being more closed, they leave no room for creativity, which is detrimental to L2 acquisition.

Although there is not much research on this learning style, Brown cited the research of Naiman et al. (1978) and Chapelle and Roberts (1986), who found that learners who possessed high AT 'were slightly more successful in certain language tasks, suggesting, though not strongly so, that AT may be an important factor in L2 learning.' Brown finds it difficult to conceive of the idea that a person with closed and specific ideas could succeed 'in the overwhelmingly ambiguous process of learning a second language.' (p. 118).

4.2.1.3 Reflectivity and Impulsivity

The ability to make decisions quickly and impulsively, and to feel comfortable about it, is what Brown calls being 'impulsive'. On the other hand, people who tend to make decisions in a calculated and slower manner are considered 'reflective' (p. 119). The importance of this style lies in the influence it has on L2 learning.

Brown highlights a range of research in language acquisition influenced by this style. To begin with, Kagan (1965) showed that children who are conceptually reflective make fewer reading errors than impulsive children. However, Goodman (1970) noted that impulsive children are better at reading faster. Finally, Doron (1973) found that reflective adults were slower but more accurate than impulsive students in reading (in Brown, p. 119).

4.2.2 Visual, Auditory, and Kinesthetic Styles

Brown's definitions are characterized by their clarity, conciseness, and brevity, rendering them highly suitable for delineating these learning styles. Visual learners prefer to view information graphically and 'tend to prefer reading and studying charts, drawings.' (p. 120) Auditory learners 'prefer listening to lectures and audiotapes. Finally, kinesthetic learners 'will show a preference for demonstrations and physical activity involving bodily movement'.

Brown adds that for a learner to be successful in language acquisition, they must use visual and auditory input, but a preference for one or the other can make a difference between one learner and another, so this is a determining factor for further L2 acquisition.

4.2.3 Measurement of Learning Styles

Because of the importance of knowing the learning styles of students, there are various options for learners to identify the option that is most useful for their learning. Some options include questionnaires such as Kolb's (1999) 'Learning Style Inventory' (LSI), Oxford's (1995) 'Style Analysis Survey' and for instance Joy Reid's (1987) 'Perceptual Learning Style Preference Questionnaire', which is the questionnaire that we will use in the following section and will be explained and developed in the 'methodology' section.

Brown (p. 121) concludes that these tendencies can be adapted by learners to different contexts and situations, as also pointed out by Oxford (2011, p. 40) when he indicated that 'although the learner might have some strong style tendencies, they are not set in stone and are influenced by the sociocultural context.' This is why it is essential to know the students' strategies, their strengths, and weaknesses without overlooking the cultural context behind it.

5.   SURVEY ON LEARNING STYLE PREFERENCES

For the practical aspect of this project, I have chosen to employ the Perceptual Learning Style Preference Questionnaire, developed by Reid in 1987. This questionnaire is a valuable tool for identifying and comprehending an individual's favoured learning style. It consists of a series of carefully designed questions and prompts that assess various aspects of perceptual learning, including visual, auditory, and kinesthetic preferences.

Through administering this questionnaire to participants, we aim to gather insightful data about their preferred learning styles. The questionnaire's structure allows participants to rank their preferences or provide qualitative responses, which will enable us to gain a comprehensive understanding of their unique learning preferences.

5.1   Methodology

As part of the practical part of this project, I have chosen to employ a questionnaire developed by Reid known as the Perceptual Learning Style Preference Questionnaire (1987). This questionnaire serves as a tool to address the specific areas of interest in our study. It comprises 30 questions that are tailored to assess perceptual learning styles, with a specific focus on English language learners.

The questionnaire is divided into five parts, each representing a different learning style: auditory (questions 1, 7, 9, 17, and 20), visual (questions 6, 10, 12, 24, and 29), kinesthetic (questions 2, 8, 15, 19, and 26), tactile (questions 11, 14, 16, 22, and 25), and group (questions 3, 4, 5, 21, and 23), with the final part focusing on individual learning style (questions 13, 18, 27, 28, and 30). Additionally, I have included five additional questions (questions 31, 32, 33, 34, and 35) to further explore the factors that hinder second language (L2) acquisition. These questions relate to the variable factors discussed in section 3 and will provide insights not only into participants' preferred learning methods but also into the challenges faced by individuals who have studied a second language, aiming to find potential solutions. The specific questions from Reid's questionnaire will be attached to this research paper to provide the necessary context for analysis.

First, in terms of the respondents, the responses of 2 different academic levels were analysed and recorded: students at primary school and students at high school, over the age

of 16, including those who are no longer studying English academically, as their education has already finished (at the age of 16 in Spain). In total, there are 80 people, of whom 43 are men and 37 are women.

To collect data on learning styles more effectively, an age division will be made; on the one hand, those under 16 and, on the other, those over 16. This will be, in general, the classification to be followed throughout the work.

The data are collected in variables whose maximum value is 5, following Reid's instructions to obtain results in accordance with the table he created, which will also be attached at the end of the paper.

5.2   Analysis
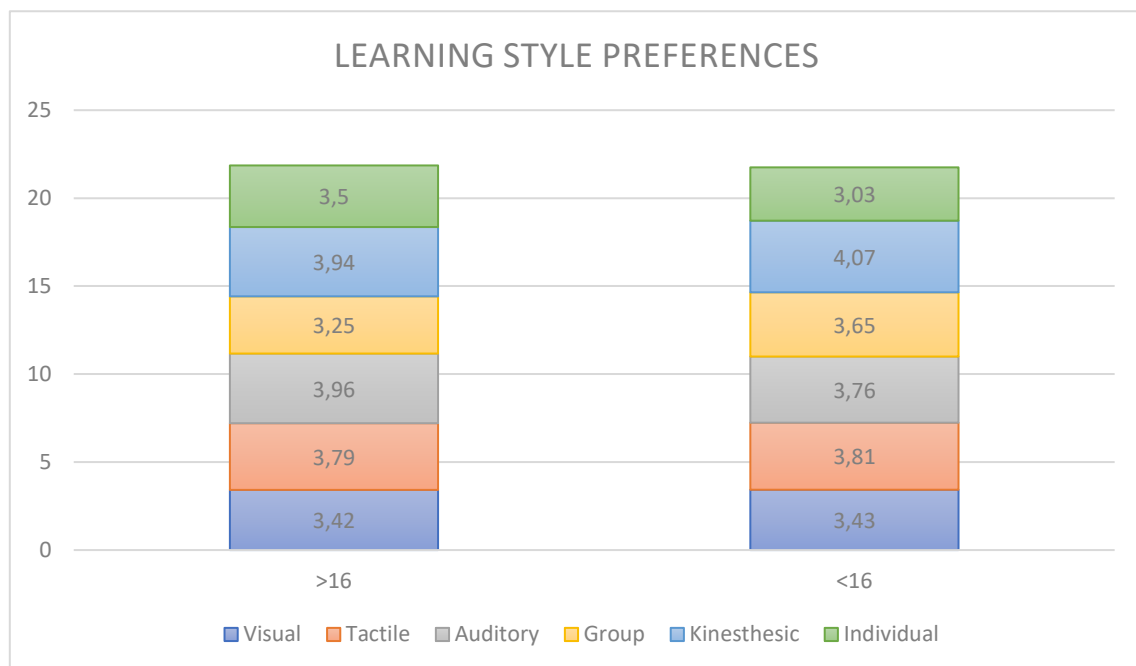
This graph collects the data separated by age and indicates the learning styles seen previously and the preferences of the age groups. As can be seen, the differences are small in some styles, while in others there are clear differences that are closely related to the age of the respondent.

For practical purposes, the results of the participants were divided into 2 blocks: under 16 and over 16. The division was made considering that in Spain, academic studies end at the age of 16 in high school, so that from then onwards, except in some specific cases such as studying the subject at university, respondents will be free to decide whether to continue learning the language.

- Visual learning style preference

To begin with, according to this style, the difference between the two age groups is minimal, the group of under 16-year-olds preferred the visual aspect by 3.43 on the scale used out of 5, whereas the group of over 16-year-olds preferred this learning by 3.42. Analysing the assessment of the results proposed by Reid, we can therefore conclude that the under-16 age group are more individual learners who learn best by seeing words either on the blackboard or in a book, and are therefore recommended, to improve in this style and remember information better, to take notes.

- Auditory learning style preference

As for the auditory aspect, there is a bigger difference this time; learners over 16 prefer auditory learning 3.96 compared to 3.76 for those under 16. This method makes it easier to remember new information if it is read out loud. Therefore, it can be said in line with Reid's findings that older respondents learn best from listening and oral explanations, so it is important to encourage this method by listening to audios, lectures, and class discussions.

- Kinesthetic learning style preference

In kinesthetic learning, those under 16 prefer to learn by this method by 4.07, compared to 3.94 for those over 16. The difference is small and is a preference for learning based on physical experiences in the classroom. It is therefore a series of activities, such as role-playing exercises, which enable learners to learn more effectively. One way to enhance this type of learning according to Reid is by combining stimuli, for example, listening to an audio and doing an activity at the same time will help to better understand and retain new information.

- Tactile learning style preference

The difference between the two groups in tactile learning is also minimal, with the under-16s preferring this learning style (3.81) compared to the older ones (3.79). This method implies that learners learn best through experiences that involve touching and working with materials, so writing notes or instructions may help these students remember information better, and other activities that require physical immersion may help them understand new information.

- Group learning style preference

As far as group learning is concerned, minors prefer, by a higher margin (3.65 vs. 3.25), a group learning style. According to this method, learners learn better when they study with other students, and work better in this way. According to Reid, they value group interaction more and remember information better when there is group work. They are helped to retain and learn new information by the stimuli they receive from the social interaction of a group.

- Individual learning style preference

In this case, as was to be expected from the previous results, it is the opposite of the previous case; older people prefer individual learning (3.5) compared to 3.03 for younger people. Older students prefer to work alone because they consider that they remember the information better if they study on their own. In turn, they also understand better when they are alone, so they prefer to do exercises individually rather than in a group.

- Additional questions

The purpose of asking these additional questions was to provide additional information to complement the previous information in the Reid questionnaire. In addition, some of the questions are about whether previous information about the influence of factors such as age or anxiety on language learning is true or not. Moreover, they were asked about their motivation to continue learning the language and as a result, they are asked to indicate how they would improve language teaching. Comments will be collected at the end.

The additional questions were as follows:

1. I get more nervous speaking in English than in Spanish (or your mother tongue).
2. I participate less in English class out of embarrassment.
3. I prefer to be corrected individually by the teacher rather than out loud.
4. I am motivated to continue learning English.
5. I would change something about the way I am taught English (say what you would change).

To be able to represent these data, a scale out of 5 was used, with 1 being not at all and 5 being totally, and then applying the average of the results to follow the same premise as Reid, the results obtained being the following:

	Nerves	Participation	Correction	Motivation
> 16	4.25	4.0	4.3	4.45
< 16	3.63	2.73	4.1	4.36

- Nerves: As far as nervousness when speaking in a foreign language is concerned, we can see that older respondents are more nervous (4.25) than younger ones (3.63). This may be because psychological studies have shown that the older we get, the more introverted we become. This is a phenomenon known as 'intrinsic maturation'.

- Participation: In this case, the question revolves around how embarrassment affects participation in class; as expected, embarrassment affects us more the older we are, just like the nerves in the previous section. As we get older, we mature and become more aware of things we were unaware of when we were younger. Therefore, older students are more self-conscious about participating than younger students.

• Correction: In the case of the preference for private correction, again older students prefer it, probably linked to emotional factors such as embarrassment or anxiety that may be involved in public correction in front of other students. While it is true that public correction is very useful for everyone because the mistakes made by one student are likely to be the same as those made by others, it is also true that the way it is done is often inadequate and can generate anxiety or low self-esteem in students.

• Motivation: Finally, motivation in both groups is very similar, although it is higher in the older group (4.45). Probably the comments added by the respondents on what they would improve to learn SLA better can help us to understand the reason for this preference to continue learning the language, although this is something very individual and will depend on each learner.

• Additional comments for improving teaching:

> 16	< 16
Practice	Practice
Speaking	Visual
Individuality	Group activities
Dynamism	Games

The table above summarises the comments received from both groups. Both groups agree that they want more practice in the lessons and would like more dynamism, in the case of the younger ones through games. However, both differ in the teaching method they would

prefer to see applied: the older ones prefer more speaking activities, while the younger ones prefer more visual activities. They also differ in individuality, with older children preferring individual activities while younger children prefer group activities.

In terms of comments on what they would currently change about English teaching, the older students mostly agree that they would prefer less grammar, the younger students would prefer fewer theoretical activities and better explanations from their teachers.

5.3   Results

To conclude, let us analyse the results. In the visual, tactile, group and kinesthetic methods, the under-16s have a majority compared to the over-16s, who only have a majority in two methods: the auditory method and the individual method.

	Visual	Tactile	Auditory	Group	Kinesthesic	Individual
> 16			◆			◆
< 16	◆	◆		◆	◆	

In general, the biggest differences have been perceived as those involving individual or group work.

The emotional development of the students influences their preferred learning methods and can generally be observed in the students' additional comments. Students over 16 years of age prefer a methodology in which individual work is prioritised over group work, and it can be concluded that the aspects indicated in the section three on individual affective factors are reflected as age increases and there are a series of emotional changes that condition learning preferences. It should be noted that both age groups would switch from the more theoretical part of learning to more practical activities. This may be because since the primary, mainly secondary years, language teaching is mainly based on the grammatical part, which is seen every year of compulsory education with few added modifications.

For this reason, many students agree that they would like to make the subject more practical, with more dynamic activities that allow them to develop more skills such as speaking. It could be concluded that for the same reason, students over the age of 16 prefer private corrections rather than out loud, as minors generally act in a more disinhibited manner, a factor that changes as they get older.

6.   CONCLUSION

In summary, this document has examined various individual affective factors that impact the acquisition of a second language. These factors include age, gender, culture, motivation, risk-taking, inhibition, anxiety, self-esteem, and learning strategies and styles. The findings from the survey conducted using Reid's questionnaire indicate notable disparities in learning preferences between younger and older learners. Younger learners tend to favour visual, group, and kinesthetic methods, while older learners lean towards auditory and individual methods. The study also emphasizes the importance of tailoring language lessons to individual learners, taking into account key factors such as age, to achieve successful language acquisition. Understanding a learner's preferred style is crucial for effective teaching, while considering their unique needs and limitations.

Additionally, the research has underscored the significance of hands-on activities in language learning, as both age groups demonstrate a preference for practical tasks over theoretical ones. The emotional growth of students also impacts their favoured learning methods, which can be observed through their additional remarks. Overall, this investigation has established that recognizing individual learning preferences is essential for successful language instruction. By considering the various affective factors that influence language acquisition, teachers can create a more supportive and effective learning environment for their students.

This work has explored the various individual affective factors that influence second language acquisition. The theoretical aspect has offered a conceptual framework to comprehend the influence of these factors on language learning. Nevertheless, it is crucial to establish a connection between theory and practical application in order to cultivate a more efficient learning environment.

The findings from the survey conducted using Reid's questionnaire have revealed noteworthy distinctions in learning preferences between younger and older learners. This empirical component of the study has provided us with insights into how the factors investigated in the theoretical part manifest in the preferred learning styles of the participants. The research has emphasized the significance of hands-on activities in language learning, as both age groups exhibit a preference for practical tasks over theoretical ones.

To achieve success in language learning, it is crucial to take into account the individual factors of learners and tailor the lessons accordingly, with age being a significant factor to consider. By understanding a learner's preferred style, educators can create a supportive and effective learning environment that addresses the specific needs and limitations of each individual. Moreover, integrating practical activities into language learning facilitates the connection between theory and practice, making the learning experience more engaging, meaningful, and memorable for learners.

In conclusion, the study of individual affective factors and preferred learning styles in language acquisition has highlighted the importance of linking theory to practice for effective language teaching. By understanding the various factors that influence language learning and incorporating practical activities into lessons, teachers can create a more engaging, supportive, and effective learning environment for their students. As language teaching continues to evolve, it is essential to continue to explore and understand the individual factors that impact language learning, so that we can continue to improve the effectiveness of language teaching.

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8.   APPENDIX

8.1   Perceptual learning style preference questionnaire

➢ Strongly Agree (SA)

➢ Agree (A)

➢ Undecided (U)

➢ Disagree (D)

➢ Strongly Disagree (SD)

	SA	A	U	D	SD
1. When the teacher tells me the instructions, I understand better.					
2. I prefer to learn by doing something in class.					
3. I get more work done when I work with others.					
4. I learn more when I study with a group.					
5. In class, I learn best when I work with others.					
6. I learn better by reading what the teacher writes on the chalkboard.					
7. When someone tells me how to do something in class, I learn it better.					
8. When I do things in class, I learn better.					
9. I remember things I have heard in class better than things I have read.					
10. When I read instructions, I remember them better.					

11. I learn more when I can make a model of something.					
12. I understand better when I read instructions.					
13. When I study alone, I remember things better.					
14. I learn more when I make something for a class project.					
15. I enjoy learning in class by doing experiments.					
16. I learn better when I make drawings as I study.					
17. I learn better in class when the teacher gives a lecture.					
18. When I work alone, I learn better.					
19. I understand things better in class when I participate in role-playing.					
20. I learn better in class when I listen to someone.					
21. I enjoy working on an assignment with two or three classmates.					
22. When I build something, I remember what I have learned better.					
23. I prefer to study with others.					
24. I learn better by reading than by listening to someone.					
25. I enjoy making something for a class project.					
26. I learn best in class when I can participate in related activities.					

27. In class, I work better when I work alone.					
28. I prefer working on projects by myself.					
29. I learn more by reading textbooks than by listening to lectures.					
30. I prefer to work by myself.					

8.2   Self-scoring sheet

There are 5 questions for each learning category in this questionnaire. The questions are grouped below according to each learning style. Each question you answer has a numerical value:

SA	A	U	D	SD
5	4	3	2	1

Fill in the blanks below with the numerical value of each answer. For example, if you answered Strongly Agree (SA) for question 6 (a visual question), write a number 5 (SA) on the blank next to question 6 below.

Visual

6 - __5__

When you have completed all the numerical values for Visual, add the numbers. Multiply the answer by 2 and put the total in the appropriate blank.

Follow this process for each of the learning style categories. When you are finished, look at the scale at the bottom of the page; it will help you determine your major learning style preference(s), your minor learning style preference(s), and those learning style(s) that are negligible.

SELF-SCORING SHEET

VISUAL	TACTILE
6 - _____	11 - _____
10 - _____	14 - _____
12 - _____	16 - _____
24 - _____	22 - _____
29 - _____	25 - _____
Total_____ x 2 = _____(Score)	Total_____ x 2 = _____(Score)

AUDITORY	GROUP
1 - _____	3 - _____
7 - _____	4 - _____
9 - _____	5 - _____
17 - _____	21 - _____
20 - _____	23 - _____
Total_____ x 2 = _____(Score)	Total_____ x 2 = _____(Score)

KINESTHETIC	INDIVIDUAL
2 - _____	13 - _____
8 - _____	18 - _____
15 - _____	27 - _____
19 - _____	28 - _____
26 - _____	30 - _____

SELF-SCORING SHEET

Total_____ x 2 = _____(Score)   Total_____ x 2 = _____(Score)

8.3   Explanation of learning style preferences

Students learn in many ways. The questionnaire you completed and scored showed which ways you prefer to learn English. In many cases, students' learning style preferences show how well students learn material in different situations.

The explanations of major learning style preferences below describe the characteristics of those learners. The descriptions will give you some information about ways in which you learn best.

- **Visual major learning style preference**

You learn well from *seeing words* in books, on the chalkboard, and in workbooks. You remember and understand information and instructions better if you read them. You don't need as much oral explanation as an auditory learner, and you can often learn alone, with a book. You should take notes of lectures and oral directions if you want to remember the information.

- **Auditory major learning style preference**

You learn from hearing words spoken and from oral explanations. You may remember information by reading aloud or moving your lips as you read, especially when you are learning new material. You benefit from hearing audio tapes, lectures, and class discussion. You benefit from making tapes to listen to, by teaching other students, and by conversing with your teacher.

- **Kinesthetic major learning style preference**

You learn best by experience, by being involved physically in classroom experiences. You remember information well when you actively participate in activities, field trips, and role-playing in the classroom. A combination of stimuli-for example, an audio tape combined with an activity-will help you understand new material.

- **Tactile major learning style preference**

You learn best when you have the opportunity to do "hands-on" experiences with materials. That is, working on experiments in a laboratory, handling and building models, and touching and working with materials provide you with the most successful learning situation. Writing notes or instructions can help you remember information, and physical involvement in class related activities may help you understand new information.

- **Group major learning style preference**

You learn more easily when you study with at least one other student, and you will be more successful completing work well when you work with others. You value group interaction and class work with other students, and you remember information better when you work with two or three classmates. The stimulation you receive from group work helps you learn and understand new information.

- **Individual major learning style preference**

You learn best when you work alone. You think better when you study alone, and you remember information you learn by yourself. You understand new material best when you learn it alone, and you make better progress in learning when you work by yourself.