Chapter 3 Teaching and Learning Strategies Preferred by Pre-service English Teachers

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Abstract

The present study determined the teaching and learning strategies preferred by pre-service English teacher to facilitate their own English language learning and their academic performance. This quantitative research utilized an online survey questionnaire as a method to collect data. Participants were 57 English Language Teaching (ELT) undergraduate students from a Mexican public university. The results revealed that pre-service teachers perceive co-instructional and post-instructional strategies as the most appropriate to obtain better academic results. Besides, the learning strategies they favor the most are cognitive and metacognitive. However, there is a non-significant difference between the strategies preferred by the students, indicating that both inductive and deductive strategies can be implemented and supported by technology to improve their English language skills.In other findings, the research also discovered that pre-service teachers have positive attitudes toward the English language and favor the use of technological tools to learn it.

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Resumen

Este estudio determinó las estrategias de enseñanza y aprendizaje que prefirieren los profesores de inglés en formación para facilitar su propio aprendizaje del idioma inglés y su desempeño académico. La investigación fue de tipo cuantitativo utilizando un cuestionario de encuesta aplicado en línea como método de recolección de datos. Los participantes fueron 57 estudiantes de la licenciatura en Enseñanza del Idioma Inglés de una universidad pública mexicana. Los resultados revelaron que los profesores de inglés en formación perciben las estrategias co-instruccionales y post-instruccionales como las más apropiadas para obtener mejores resultados académicos. Además, las estrategias de aprendizaje que más favorecen son las cognitivas y metacognitivas. Sin embargo, existe una diferencia no significativa entre las estrategias preferidas por los estudiantes, lo que indica que tanto las estrategias inductivas como las deductivas pueden implementarse y apoyarse con la tecnología para mejorar sus habilidades en el idioma inglés. Entre otros hallazgos, la investigación descubrió que los profesores en formación tienen actitudes positivas hacia el idioma inglés y favorecen el uso de herramientas tecnológicas para aprenderlo.

Palabras clave: *estrategias de enseñanza, estrategias de aprendizaje, profesores en formación, preferencias, idioma inglés.*

Introduction

The current educational paradigm involves the transformation from teacher-centered to student-centered teaching. In the latter case, the training action focuses on the learners and the activities they carry out to achieve learning and not on the teacher. Thus, students have an active role, placing themselves at the center of the teaching and learning processes (Céspedes, 2020). In correspondence with this new environment, higher education teachers should not underestimate the learning preferences of pre-service teachers of English (hereinafter pre-service teachers or students). Therefore, to improve the training processes it is essential to consider their needs and desires. This makes it necessary for the teaching and learning strategies implemented by teachers in the classroom to reflect the voices of the students (Rocha-Erkaya & Ergünay, 2021). According to Daflizar et al., (2022), identifying the characteristics of the students and the learning strategies of their preference is essential for teachers to select teaching materials, design activities, tasks and projects according to their needs, to help them improve their academic performance. Regarding teaching strategies, Díaz Barriga and Hernández (2004) argue that thanks to their variety and flexibility, teachers can use them at different times, which can be before, during, and after instruction, to facilitate learning and the development of students' autonomy. The combination of teaching and learning strategies allows the development of meaningful learning, where, in the former, the responsibility falls on the teacher, and in the latter, on the student. Therefore, both should use them as moldable procedures in different educational environments (Díaz Barriga & Hernández, 2004).

In the same vein, Hutchinson and Waters (1987) point out that when it comes to language learning, emphasis should be placed on how people learn rather than on what. The researchers state that using a learning-centered approach is adequate to understand how people learn the strategies they apply to learn the target language, in order to establish an appropriate teaching path. Similarly, they recognize the contribution of educational psychology to learning by focusing on the interests and preferences of the learners, since they could have different needs that would influence their attitudes, motivation and achievements.

Particularly in Mexico, where this study was carried out, several research studies have shown that the linguistic competences of the English language, both, adults and students of different educational levels are very low. For example, according to the organization EF English Proficiency Index (EF EPI), Mexico has shown a constant decline in the English proficiency of adult learners since 2011; situation that must be addressed by the federal government by allocating economic resources. In 2021, the results of the EF EPI test showed that Mexico's score decreased from 440 points in 2020 to 346 points, obtaining a score of -4 according to the EF EPI classification by countries and regions (Zermeño, 2021). In 2022, there is an improvement in the level of English in Mexico, going from position 92 out of 112 countries in 2021 to 88 out of 111 countries. However, the country continues to be in the very low domain range (EF EPI, 2022).

Another study conducted in 2015 by the Mexicanos Primero organization to assess whether high school graduates had the necessary skills to communicate in English, obtained negative results (Székely *et al.*, 2015). The study included the participation of 4727 high school graduates from 11 states of Mexico, who took the Comprehension and Use of the English Language Test for High School Graduates (EUCIS). The EUCIS results showed that 97% of the students obtained a failing grade, while 4 out of 5 students had a total lack of knowledge of English. Also, Consulta Mitofsky (2013) examined the amount of the adult population that speaks English in Mexico. The results showed that from a sample of 1 000 adult participants over 18 years of age who responded to a survey, less than 12% spoke English. Only 11.9% of people stated they read very well, compared to 51.7% who said they were poor readers. Regarding the ability to speak English, 8.8% of the participants answered that they spoke fluently, as to the 56.2% who said they spoke poorly.

On the other hand, it is relevant to note that these studies on language proficiency were conducted by private organizations; therefore, they may have methodological biases. However, due to the scarcity of recent research on this theme and the information provided by the studies presented above, it can be deduced that students who finish high school do not have the necessary language skills to perform successfully at a higher level.

The low level of English with which students graduate from basic, secondary and upper secondary education has a direct impact on the higher level. At the local level, the Bachelor's Degree in English Language Teaching sees the need to accept some students below the required level of English in order to reach the required number of students established by the university, situation that hinders the trajectory of these students in the educational program. For this reason, the purpose of this study is to determine the teaching and learning strategies preferred by pre-service English teachers to facilitate their own English language learning, and consequently, their academic performance. This research seeks to fill the gap in the research literature regarding the learning preferences of pre-service English teachers to help them become successful teachers. Moreover, knowing the teaching and learning strategies preferred by students can provide valuable knowledge that helps improve English teacher training programs (Rocha-Erkaya, & Erünay, 2021).

Research Questions

The following research question guides the present study: 1. What learning strategies do pre-service English teachers prefer?

Literature Review

Conceptualization of Teaching and Learning Strategies

In countries where the official language is not English, students have few opportunities to be in contact with the language; thus, the teaching and learning strategies teachers utilize constitute an essential element in facilitating foreign language learning. Pimienta (2012) defines teaching strategies as the instruments the teacher uses to contribute to the implementation and development of student competencies. While Pamplona (2019) points out that they are the teacher's methodology to ensure that the thematic contents and information can be learned by the student and the development of competencies is generated. Taking this statement a little further in its definition, it not only considers strategies as objects that are used to carry out work, but also as an orderly and systematic way to reach a specific objective. Similarly, Díaz Barriga and Hernández (2004) define teaching strategies as the procedure that the teaching agent uses reflectively and flexibly to promote achievement of significant learning; adding reflection by the teacher for his selection and flexibility when implementing them. Similarly, Peralta (2016) points out that teaching strategies are general guidelines planned by teachers on how to teach the contents of a course. These include the "why" and "what for" in order to establish the learning goals in a clear and organized way.

Regarding learning strategies, Oxford (1990) defines them as behaviors or actions carried out by students in their learning process. These strategies serve as instruments to understand easily, fast, and in a self-regulated way through acquiring, retaining, and recovering information. The use of learning strategies is essential to help students improve their performance and develop self-confidence (Oxford, 1990). For Cohen and Macaro (2007), learning strategies are processes consciously selected by learners. Consistently, in the ELT area, Steinberg et al., (2001) define learning strategies as specific approaches or techniques used by students depending on the situation they face. For example, a student can remember and explain what he did using new vocabulary. In this sense, it is understood that learning strategies vary from person to person depending on the way each individual learns. Brown (2006) adds to the definition of Steinberg et al., (2001) by saying that strategies are "attacks" used by individuals to face certain learning situations. On the same token, Chamot (2005) offers a generalized definition of learning strategies, pointing them out as conscious procedures that facilitate a learning objective. Like Chamot, Bargas et al., (2010) define learning strategies as conscious mental and behavioral procedures used by people to have control over their learning process.

Whether taught by the teacher or learned by the students, it is considered that strategy-based teaching could meet the learning needs of students, resulting in autonomous learners, responsible for their own learning, self-confident and capable of achieving learning goals (Melvina *et al.*, 2020).

Types of Strategies

Teaching Strategies

Table 1 presents the teaching strategies identified in the research by Pamplona *et al.*, (2019), based on Díaz Barriga and Hernández (2004). In view of the fact that there is a similarity between them and cover the different stages of the teaching-learning process. The two classifications are divided into the investigation of prior knowledge as an introduction to the process, the development and construction of the topic through the organization and understanding of the information, as well as the synthesis and integration of what has been learned to contribute to the development of competencies or abilities.

Types of strategies	Туре	Strategies
Pre-instructional (introduction to the	Traditional	Statement of objectives, activation of previous knowledge, examples, relationship with daily life.
subject)	Innovative	Information and Communication Technologies (ICT).
Co-instructional (development and	Traditional	Mind maps, semantic maps, problem solving, relationship with everyday life, illustrations, socialization.
construction of the topic)	Innovative	Interactive groups, murals, classroom projects, reciprocal teaching, short stories, dramatizations, ICT, games, digital games.
Post-instructional	Traditional	Localization, semantic maps and mental maps.
(Synthesis and integration of the learned concepts)	Innovative	птс.

Table	1. <i>Tec</i>	aching	strate	gies
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Source: Pamplona *et al.*, (2019, p. 19). Teaching strategies of the teacher in the basic areas: A look at school learning.

Pamplona *et al.*, (2019) give relevant importance to ITC, considering that in the three categories of strategies within their classification: pre-instructional, co-instructional and post-instructional, they appear as innovative strategies, while Pimienta (2012) considers them to be among the active methodologies to contribute to the development of competencies according to their classification. Pimienta presents a more extensive categorization based on his experience in teacher training at the university level in various countries. His classification focuses on strategies to gather prior knowledge and to organize and structure content to facilitate the achievement of significant learning and the development of competencies. Table 2 presents the teaching strategies proposed by the author.

Teaching Strategy	Type of strategy
Strategies for inquiring about prior knowledge	Brainstorm. Simple/complex questions Guiding questions: how? where? when? Literal, exploratory questions What I know, what I want to learn, what I learned Previous answer, question, later answer
Strategies to promote understanding by organizing the information	Synoptic, comparative table Charts: flow, radial, tree, cause-effect Maps: web, cycles, squid, sequence, mind, concept
Strategies to promote understanding	PNI (positive, negative, interesting WWW (what I see, what I don't see, What I infer) Summary, synthesis, essay
Group strategies	Debate, symposium, discussion panel, forum, seminar, workshop
Active methodologies to contribute to the development of competences	Role-play Case Study Problem based learning On-Site learning (internship) ICT-based learning (forum, chats) Learning through Social Service Guided research Collaborative learning

Table	2.	Teachina	strategies

Source: own design.

Pimienta's classification is based on relating the new material to the student's prior knowledge and is divided into three parts: the first considers strategies to investigate prior knowledge, as it is the teacher's starting point. The second part presents a series of strategies that promote understanding through the organization of information, and the last part includes active methodologies to contribute to the development of competencies.

In both classifications shown in Tables 1 and 2, the strategies have been considered according to their moment of use and presentation and the cognitive processes involved.

Learning Strategies

Learning strategies have become a fundamental element for students to succeed in acquiring a second or foreign language (Oxford, 2003). There is

a wide variety of international classifications of second and foreign language learning strategies, such as those presented by O'Malley and Chamot (1990), Oxford (1990) and Wenden and Rubin (1987), among others. As an example, two taxonomies of strategies well known in the area of language teaching are presented.

Oxford (1990, pp. 20-21) presents a widely detailed classification of learning strategies encompassing the four language skills (reading, writing, speaking and listening). Oxford divides strategies into two main groups: direct and indirect. Direct strategies, are subdivided into memory strategies (e.g., creating mental links, applying images and sounds, reviewing well), cognitive strategies (e.g., practicing, analyzing, reasoning) and compensation strategies (e.g., intelligent guessing). Indirect strategies, are subdivided into metacognitive strategies (e.g., focusing learning, organizing, planning), affective strategies (e.g., reducing anxiety, encouraging oneself), and social strategies (e.g., asking questions, cooperating). Oxford considered linguistic, communicative, and psychological aspects that meet the strategies in information processing. Some strategies in her taxonomy, especially memory and metacognitive strategies, reflect various learning styles and strategies of the learner (see Oxford's strategy classification in table 3).

Strategies	Strategies classification	Types of strategies
Direct	Memory	Development of mental links, use of images and sounds, deep reviews, actions.
	Cognitive	Practicing, sending and receiving messages, analyzing and reasoning, creating of input and output structures.
	Compensation	Intelligent guessing, overcoming limitations in speaking and writing.
Indirect	Metacognitive	Focusing on own learning, organizing and planning own learning, assessing own learning.
	Affective	Lowering own anxiety, cheering oneself up, being aware of own emotional changes.
	Social	Asking questions, cooperate with others, empathize with others.

Table 3. Classification of learning strategies

Source: Oxford (1990). Language Learning Strategies. What Every Teacher Should Know.

Oxford redefined language learning strategies and provided new ways to assess, teach, and study them in different proficiency levels, from beginners to advanced learners. Although, she did not offer a new classification of language learning strategies, her in-depth review emphasizes the importance of self-regulated learning strategies in supporting effective language acquisition. Also, Oxford highlights the application of strategies for learning second language grammar, vocabulary, pronunciation, reading, writing, speaking, and pragmatics in context (Oxford, 2017).

O'Malley and Chamot (1990) presented a less complex taxonomy than the Oxford one based on cognitive learning concepts, where they classify strategies into three large groups: metacognitive, cognitive, and socio-affective (See O'Malley & Chamot's taxonomy in table 4).

Strategies	Strategies classification	Learning Strategies
Metacognitive	Planning	Advanced organizers, directed attention, selective attention, self-management, functional planning
	Monitoring	Self-monitoring
	Evaluation	Self-evaluation
Cognitive	_	Repetition, retrieval, translation, grouping, note taking, summary, deduction, recombination, imagery and auditory representation, keyword method, contextualization, elaboration, transfer, inference.
	Inquiring to clarify	—
Socioaffective	Cooperation	_
	Chatting to one self	_

Table 4	l earnina	strategies
	Leanning	Struttgits

Source: O'Malley and Chamot (1990, pp. 119-120). Learning strategies in second language acquisition.

In the taxonomies presented in tables 3 and 4, it can be observed that the cognitive strategies of O'Malley and Chamot are present in the Oxford classification as memory and cognitive strategies. However, the strategies are generally consistent across both classifications.

English Teaching in Mexico

The Ministry of Public Education in Mexico (SEP) establishes the guidelines for English language teaching that educational institutions must observe. The SEP incorporates into the National Development Plan (NDP) the strategies to achieve educational goals at the national level. However, the NDP (2019-2024) does not mention any specific topic in relation to English language teaching. Although the NDP emphasizes access for all students to all educational levels, from basic to higher education, it does not clarify what actions will be implemented in the field of English as a foreign language.

Hernández's study (2019) on English language teaching at different educational levels in Mexico offers a broad vision of the current situation of English language teaching and the lack of an official policy on how to teach it. At the macro level, there is a correlation between English proficiency among the population and national income per capita. That is, English skills improvement increases salaries and elevates investment throughout the country, forming a virtuous cycle (Hernández, 2019). In addition, the study revealed the existence of personal and professional benefits for people who speak English. At the local level, the university promotes effective communication between teachers, tutors and students to ensure a successful academic trajectory. Hence, this study reflects the university's interest in providing a quality education to future English teachers.

Attitudes and Motivation toward Language Learning

As Gardner (1985) points out, emotions, such as the desire to learn the language and favorable attitudes towards learning, can influence the intensity of motivation. Attitudes can be understood as a person's predisposition to react in a positive or negative way toward various entities, such as ideas, objects, people, or situations. Thus, attitudes toward language learning reflect an individual's inclination and level of effort toward acquiring languages (Zulfikar *et al.*, 2019).

According to Ryan and Deci (2000), people are motivated when they feel moved to do something. They classify the types of motivation as intrinsic and extrinsic. In the context of English learning, intrinsic motivation refers to the student's desire to learn the language because they find enjoyment, interest, or personal satisfaction in it; which in language learning is often associated with deeper and more sustained learning.

On the other hand, extrinsic motivation refers to an interest driven by external rewards or consequences. Students who are extrinsically motivated might study English to earn good grades, fulfill academic requirements, secure a job, or achieve a professional status. While extrinsic motivation can effectively drive learning, it tends to be less enduring than intrinsic motivation and may rely on the continued presence of external rewards (Ryan & Deci, 2000).

Methodology

This study used a quantitative method under the principles of the constructivist approach. The investigation collected quantitative data to determine the teaching and learning strategies preferred by pre-service English teachers to improve their language skills and academic performance. The researchers conducted surveys to gain insight into students' attitudes toward English, their motivation to learn the language, and their learning needs. The above is according to the learning-focused approach proposed by Hutchinson and Waters (1987), which emphasizes the importance of teaching and learning paths.

Research Context

This study was conducted in a Mexican university in the north of Mexico. The university has five campuses from which the North and Center campuses (pseudonyms) were chosen to carry out the study, as they have the largest population of students in the university. Therefore, the information provided by participants from those campuses would be more representative. Candidates who seek admission to an English Teaching major must meet the selection criteria established by the university to demonstrate their command of English at an intermediate level, which corresponds to the levels B1 and B2 of the Common European Framework of Reference for Languages (CEFR). In this major most classes are taught in English. Students enrolled attend face-to-face sessions in classrooms equipped with a smart TV and internet connection. An educational platform is used to carry out the teaching and learning processes in a blended learning environment.

Participants

The participants in this study were 57 students enrolled in the English Language Teaching course at the North and Center campuses of the university, who voluntarily accepted the invitation to participate in the study.

Students meeting one of the following criteria were recruited:

- *a*) Students initially accepted into the program with the condition of continuing to study English.
- *b)* Students who meet the entry requirements but are at the threshold level of English established for the educational program.

Data Collection Instruments

For the survey, researchers adapted the questionnaire created by Moreno (2004) to investigate the language needs of Spanish students majoring in English Philology. Also, the questionnaire was modified to include questions about learning technologies. The questionnaire is structured in three sections (see Appendix 1). It begins by presenting the purpose of the study, use of the information collected, the confidentiality of the data, and the voluntary nature of participation in the study. Section I gathers the personal information of the participants and the reasons why they chose to study English Teaching major. Section II explores the attitude and motiva-

tion of students towards the English language through questions related to why they want to continue studying it. The information obtained from these two sections constitutes the starting point of the investigation; since it allows to have a clear idea of who the participants are in terms of their age, gender, and mother tongue, as well as their attitudes toward the language and what motivates them to continue studying English. Section III explores the learning needs of students in terms of how they like to learn English. The questionnaire items were measured using a five-point Likerttype scale from 1 (negative) to 5 (positive). To assess the internal consistency of the items, the researchers used the software spss version 23 to measure the average correlations between items. Field (2009) points out that the reliability of a scale is excellent from .90 and above. In this case, the Cronbach's alpha coefficient of the questionnaire was .90, which demonstrated the reliability of the instrument. To ensure the validity of the questionnaire, two professors from the English Teaching career answered it and provided feedback. The teachers suggested minor changes in the wording of some elements to improve their understanding. For example, in question A, Section II: Why are you interested in learning English? The reviewers proposed changing it to: Why are you interested in continuing to study English? The latter is because students already know English at a certain level when they enter the course. Another suggestion for change in the instrument was in question C, Section III: Do you consider the following activities useful to develop the four English language skills? To this question, the following words were added (Read, write, speak, listen).

Data Collection Procedures

The selection of candidates for this study was through the Heads of the major in English Language Teaching from Central and North campuses who provided in advance the database of students identified with weak-nesses in the use of the English language. The researchers sent a personalized email with the survey link to 57 students, 41 women and 16 men. The surveys were answered online through Google forms by students from the

North and Central campuses from July 9th to September 1st, 2020, obtaining a 90% response rate.

Data Analysis Procedure

Data was analyzed using the software SPSS V25. The analysis consisted of calculating basic descriptive statistics to obtain the frequency and percentage of the survey responses.

Results

This section presents the results obtained once applied the survey. Of a population of 57 pre-service teachers, 72% are women, and 28% are men. The age of the majority (82%) ranges from 17 to 21 years, and only one student is over 30 years of age. Likewise, all the participants declared that their mother tongue is Spanish.

The participants' answers to the question: *Why are you studying the English Language Teaching career*? revealed that it is the major they like (72%), even though only 35% think the labor field is attractive. This information is relevant for the study since establishes a connection between the necessity of mastering the language for professional purposes and the strategies they use or prefer to improve their proficiency level. Pre-service teachers said they want to teach English in a public or private school (54%); this information is consistent with the 53% who responded that they like to help people. In addition, 37% of the participants would like to be an English-Spanish interpreter or translator, and 30% said they want to study for a master's degree in English language teaching (see figure 1).

The "Agree" and "Strongly agree" responses to the statement: *I like the English language*, showed that all the participants like the language (100%). For this reason, their desire to understand readings, songs, and movies in English (94.7%) was a strong motivator; followed by the job prospects that English opens for them in Mexico (93%). Besides, the data revealed that English allows them to travel to other countries and function better

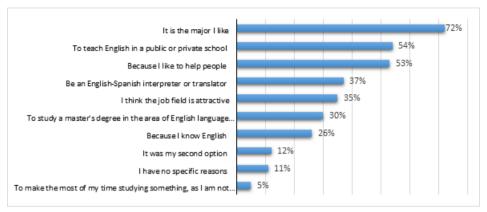


Figure 1. Reasons why pre-service teachers chose to study the major in English Language Teaching

Table 5. The interest of pre-service teachers to continue learning English

Answers	Neutral %	Agree %	Strongly agree %
I like the English language.	19.3	80.7	100
I want to understand readings, songs, and movies in English.	10.5	84.2	94.7
English opens job prospects for me in my country.	24.6	68.4	93.0
English allows me to travel to other countries and function better.	17.5	73.7	91.2
I want to study in an English-speaking country.	26.3	43.9	70.2
I want to work in an English-speaking country.	22.8	45.6	68.4
I speak with family and friends in English.	17.5	47.4	64.9

(91.2%); they want to study (70.2%) and work (68.4%) in an English-speaking country, and interact with some family and friends in English (64.9%) (See table 5).

Learning Strategies Preferred by Pre-service Teachers

Findings showed no significant difference regarding the strategies students prefer to use in their learning process. According to their answers to the question: *How do you think you get better results in learning English?* Most students prefer a deductive strategy. That is, do exercises to practice the theory, followed by 68.4% who favor the inductive strategy in their learn-

ing, extracting the principle once the exercises have been completed. Pre-service teachers show almost the same preference for online resources such as forums, chat rooms, blogs, websites, etc. (75.4%) and passive tasks such as listening, taking notes, and memorizing (75.5%). Students prefer to follow the model and guidelines the teacher instructs (78.9%) than seek information themselves (68.4%). In addition, they show a marked preference for reflecting on the practice they carry out (92.9%) over practicing with activities that do not demand much of their time (82.8%). To practice online activities is much more useful according to the student's responses (75.4%) than repeating after the teacher (64.9%).

All the students mentioned that technology helps them develop creative ideas and allows them to practice pronunciation, writing, spelling, and grammar. Their answers to the survey show that they are aware of the different technological tools to learn the language, suggesting that students can effectively engage with teaching and learning strategies involving technology. Regarding the practice of written expression, most students like to have several models that serve as examples (89.5%), as well as being guided by the teacher through the writing process since the generation of the idea to the final product (80.7%). Table 6 shows that all the activities students find useful to develop the four English skills could be used without difficulty.

Answers	A lot %	Very much %	Total %
1. Practice pronunciation.	12.3	87.7	100
2. Learn songs.	33.3	61.4	94.7
3. Listen to audio material.	29.8	63.2	93
4. Use Internet applications to practice speaking.	33.3	56.1	89.4
5. Watch videos related to the topic.	31.6	57.9	89
6. Visit Internet sites to learn vocabulary.	24.6	61.4	86
7. Participate in role plays that simulate real situations.	24.6	52.6	77.2
8. Learn grammar through computer games.	28.1	49.1	77.2
9. Investigate a topic and participate in a debate.	29.8	42.1	71.9
10. Present a topic in front of the class.	38.6	31.6	70.2
11. Writing stories and narratives.	31.6	35.1	66.7
12. Participate in forums and chats.	36.8	24.6	61.4

Table 6. Useful activities to develop the four English skills

Practicing pronunciation, learning songs, and listening to audio are the activities preferred by more than 90% of students. These findings indicate that what they do as students of the major in English Language Teaching benefit their language learning.

Regarding the question *How do you like to have your mistakes corrected when you participate in an oral activity*? the data revealed that just over half of the pre-service teachers like "A lot" and "Very much" that the teacher corrects their mistakes at the time they occur (68.4%). In almost the same proportion, students responded that they prefer the teacher correct their errors at the end of the speaking activity to avoid interruption (66.7%). Half of the participants favored error correction at the end of the activity individually (56.1%), while error correction by equal pairs (38.6%) and via audio sent to their smartphones after class (36.8%) obtained less than half of the percentages.

Finally, concerning the question *How do you like to be evaluated?* the vast majority of pre-service teachers reported "A lot" and "Very much" about being assessed through their performance in class (continuous evaluation) (80.7 %). More than half of the students prefer written assignments (68.4%) and partial-written exams (66.7%), while less than half prefer to be evaluated with a final exam (43.8%), followed by a minority of students who favor oral exams (19.3%).

Discussion

The interpretation of the results focuses on responding to the research question in light of literature and the findings of the study. The purpose is to determine the teaching and learning strategies preferred by pre-service English teachers to facilitate their own English language learning and academic performance, which could also serve to update the course programs by including significant activities that are interesting and attractive to future teachers.

Strategies Preferred by Pre-Service English Teachers

Identifying the teaching and learning strategies preferred by pre-service teachers is essential to establish achievable learning objectives and to plan the complexity of the tasks systematically. Based on the learning-focused approach that serves to meet the specific needs of learners (Hutchinson & Waters, 1987), the study establishes that there is not much difference between the strategies preferred by students, making it possible to implement inductive and deductive strategies to improve the English language. The research found that students have the same predilection for using online resources and passive tasks, which allows the selection of specific teaching situations and different methodologies (Dudley-Evans & St. John, 1998). Furthermore, pre-service teachers prefer to reflect on their own learning, coinciding with the findings of Morales and Bendek (2022) about the tendency of English learners towards a reflective learning style when observing and analyzing options before acting. This finding demonstrates that students can benefit from activities that help them develop their critical thinking skills.

The pre-service teachers' perception of teaching strategies that help them to obtain better academic results, denotes a preference for co-instructional and post-instructional strategies (Pamplona *et al.*, 2019). Co-instructional strategies are related to practice and directed attention, as most students consider it essential to understand the contents of classes, talks, and conferences in English exists a necessity for including topics to develop listening skills in the curriculum. Post-instructional strategies relate to the construction of knowledge using note taking, listening, and memorizing. For instance, listening to the radio, watching (subtitled) movies and TV/Internet programs to learn vocabulary, improve pronunciation, and understand the target language. The fact that these activities are performed by the students using ICTS reveals their familiarity with online resources and the enjoyment of using Internet applications to facilitate their English skills.

Regarding the learning strategies preferred by pre-service teachers, they favor cognitive and metacognitive strategies (Oxford, 1990; O'Malley

& Chamot, 1990). The cognitive ones refer to what students do to learn, namely analyzing, memorizing, seeing examples, listening to audio, watching videos, being guided by the teacher, and practicing to acquiring knowledge. Among the metacognitive strategies, socialization activities and reflection on learning routes stand out. For example, students give great importance to communicative tasks such as making and understanding presentations, holding and understanding dialogues, and participating in role-play activities, which indicates that they are proactive in their own learning since oral tasks reinforce the practice of the English language.

Concerning written tasks, reading for academic purposes, taking notes, making translations, and writing personal reflections were marked as very important for students. Therefore, including these activities will enhance students' interest and motivation (Cunningham, 2015). Similarly, there is a belief among students that technology can help them develop all four language skills, which matches Torsani's (2016) declarations that teachers and students who focus the use of technology on the development of communicative skills integrate language learning and technology effectively. Similar to Torsani's assertions, Motteram (2013) states that electronic devices and online tools can develop and improve language skills. In addition, the participants of this study believe that technology helps them be up-to-date and responsible for their own learning, which is in line with Ghanizadeh et al., (2015), who say that technology has several fundamental roles in language education, namely as a resource, delivery system or productivity. The authors claim that computer programs are the most effective in supporting student-centered learning, as technology can provide scaffolding for students with special needs and interests. Based on pre-service teachers' perceptions of the use of learning technologies, the researchers consider that using technological tools to facilitate the development of English language skills will be very well accepted by them.

About error correction, most pre-service teachers preferred that the teacher correct their errors when they occur and at the end of the activity to avoid interruptions. In this regard, Amara (2015) explains that the error treatment depends on whether the purpose of correction is communication fluency or accuracy. If the goal of communication is fluency, errors must be corrected after it finishes. Conversely, if accuracy is sought (e.g.,

in grammar or pronunciation), corrections should be done immediately, as delaying it could result in forgetfulness. For this reason, teachers must assess both practices depending on whether they evaluate fluency or accuracy.

Ketabi and Ketabi (2014) define continuous assessment as a way to collect information on students' performance in the classroom without using written tests. In this respect, the study found that pre-service teachers prefer to be evaluated through their performance in class, participation, and oral presentations than by exams, though they are not against them. As for written tests to measure English proficiency, it is worth mentioning that pre-service teachers must take various standardized tests during their professional lives to certify that they are competent in the language they teach. Therefore, it is vital to include technology-assisted written exams in the curriculum to prepare them for this scenario.

The study also unveiled that the pre-service English teachers who participated in the study present similar characteristics in terms of age range and mother tongue, and the majority studied in public schools; perhaps because of this, they share similar thoughts and ideas about language learning, as they belong to the same cultural and educational background. Most pre-service teachers have positive attitudes toward the English language and desire to continue studying it. Students' positive attitudes can represent a solid base for designing and implementing teaching and learning strategies to improve their performance.

In addition, the study determines that pre-service teachers are highly motivated as most of them are studying the career they like, they want to teach English, and they like to help people. In this sense, their motivation is intrinsic because they perceive these activities as pleasant. Besides, it was discovered that pre-service teachers are intrinsically motivated to continue studying English simply because they like the language.

In contrast, pre-service teachers are extrinsically motivated as they consider the major of English Language Teaching as a means to become teachers, interpreters, translators, and to study a master's degree in the future. Moreover, students want to understand readings, audio materials, work in Mexico or abroad, travel to other countries, study in an English-speaking country, and interact with family and friends using English. Therefore, it is essential to consider these strong motivators when implementing teaching and learning strategies preferred by pre-service teachers.

Conclusion

Similarities in students' characteristics and positive attitudes towards the English language represent a solid base for designing and implementing strategies to help them develop the skills and sub-skills of the target language. Due to the fact that students are interested in continuing to learn English, mainly for communicative purposes, it is adequate to use social strategies to promote collaborative learning, such as role-playing, case studies, projects, and problem-solving, among others, as well as cognitive strategies for them to learn academic vocabulary, grammar, and reading comprehension. A clear understanding of teaching and learning strategies preferred by pre-service teachers will allow teachers to implement activities that foster students' positive attitudes toward the language and intrinsic and extrinsic motivation. Additionally, applying activities that involve metacognitive strategies would be helpful to promote reflection for students to develop critical thinking skills and become competent English teachers.

It is beneficial that most pre-service teachers are familiar with many online language learning tools. For example, students can improve their oral production through interactive activities such as question-and-answer situations, group work, role plays and short speech since they all contribute to enhance oral production (World TEFL Accrediting Commission, 2018). Because students are familiar with learning technologies, we assume they will enjoy learning and practicing the language using computer devices and technological tools, as they currently use internet applications for pedagogical purposes.

This research also has limitations. As it is a case study its results cannot be generalized. However, their findings may benefit other higher education institutions with similar contexts. Moreover, it recommends using a larger sample so that the results are more reliable and allow planning

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teaching routes consistent with the learning preferences of pre-service teachers.

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Appendixes

Appendix 1. Pre-service English Teachers Questionnaire

This study seeks to determine the teaching and learning strategies pre-service English teachers prefer to improve their language skills and academic performance. The information you voluntarily provide through this survey will be used by the researchers in a strictly confidential manner and exclusively for the study. You can stop participating in the study at any time without your grades being affected. If you have any questions regarding the Research, feel free to contact the researchers at the following email addresses:

maria.fernandez@ues.mx ; mayauel.magdaleno@ues.mx ; diana.castil-lo@ues.mx

By pressing the button, I certify that I am over 16 years of age and agree to participate in this research.

I. Demographic Information:	
A) Age: 17-21 22-25 26-29 30+ B) Gender: Man Woman C) Mother tongue:	
D) Why are you studying the major in English Language Teaching? Mark with an X the reasons that you consider most relevant. 1. It is the major I like 2. It was my second option 3. I think the job field is attractive 4. To make the most of my time studying something, as I am not sure what 5. To teach English in a public or private school 6. Be an English-Spanish interpreter or translator 7. To study a master's degree in the area of English language teaching 8. I have no specific reasons 9. Because I know English 10. Because I like to help people 11. Any other? (Specify) II. Attitude and Motivation toward the English language	
A. Why are you interested in continuing to learn English? Choose one of the following options: Strongly disagree=1, Disagree=2, Neutral=3, Agree=4, Strongly agree=5	
1. I like the English language.	(1) (2) (3) (4) (5)
2. I want to understand readings, songs, and movies in English.	(1) (2) (3) (4) (5)
3. English opens job prospects for me in my country.	(1) (2) (3) (4) (5)

4. English allows me to travel to other countries and function better.	(1) (2) (3) (4) (5)
5. I want to study in an English-speaking country.	(1) (2) (3) (4) (5)
6. I want to work in an English-speaking country.	(1) (2) (3) (4) (5)
7. I speak with family and friends in English.	(1) (2) (3) (4) (5)
8. Any other?	(1) (2) (3) (4) (5)
III. How do you like to learn English? Choose one of the following options: Not at all = 1, Very little = 2, Neutral = 3, A lot = 4, Very much = 5	
A) How do you think you get better results in learning English?	
1. Doing exercises to practice the theory the teacher/book gave.	(1) (2) (3) (4) (5)
2. Extracting the theory after having analyzed examples.	(1) (2) (3) (4) (5)
3. Listening, taking notes, and memorizing.	(1) (2) (3) (4) (5)
4. Repeating at the moment I hear or after the teacher.	(1) (2) (3) (4) (5)
5. Finding the information on my own (Books, the Internet).	(1) (2) (3) (4) (5)
6. Following the instructions given by the teacher.	(1) (2) (3) (4) (5)
7. Practicing speaking, reading, writing, and listening and reflecting on it.	(1) (2) (3) (4) (5)
 Reading, writing, speaking, and listening as much as possible without spending too much time on it. 	(1) (2) (3) (4) (5)
9. Using online resources such as forums, chat rooms, blogs, websites, etc.	(1) (2) (3) (4) (5)
10. Any other? (Specify).	(1) (2) (3) (4) (5)
B) Do you consider that the following activities are useful to develop the fo	ur language skills?
1. Use Internet applications to practice speaking.	(1) (2) (3) (4) (5)
2. Watch videos related to the topic.	(1) (2) (3) (4) (5)
3. Listen to audio material.	(1) (2) (3) (4) (5)
4. Investigate a topic and participate in a debate.	(1) (2) (3) (4) (5)
5. Present a topic in front of the class.	(1) (2) (3) (4) (5)
6. Participate in role plays that simulate real situations.	(1) (2) (3) (4) (5)
7. Visit Internet sites to learn vocabulary.	(1) (2) (3) (4) (5)
8. Learn grammar through computer games.	(1) (2) (3) (4) (5)
9. Learn songs.	(1) (2) (3) (4) (5)
10. Practice pronunciation.	(1) (2) (3) (4) (5)
11. Participate in forums and chats.	(1) (2) (3) (4) (5)
12. Writing stories and narratives.	(1) (2) (3) (4) (5)
13. Any other? (Specify).	(1) (2) (3) (4) (5)
C) How do you like to write texts in English?	
1. Reading other texts that serve as examples.	(1) (2) (3) (4) (5)
Being guided by the teacher through the writing process (From the generation of ideas to the final product).	(1) (2) (3) (4) (5)

E) How do you like to have errors corrected when you participate in an oral activity?			
1. The teacher corrects me during the activity.	(1) (2) (3) (4) (5)		
2. The teacher corrects at the end of the activity to avoid interruptions.	(1) (2) (3) (4) (5)		
3. The teacher tells me my errors individually.	(1) (2) (3) (4) (5)		
4. Have a classmate correct me.	(1) (2) (3) (4) (5)		
5. Have the teacher send me an audio recording of my errors.	(1) (2) (3) (4) (5)		
F) How do you like to be evaluated?			
1. Oral exams.	(1) (2) (3) (4) (5)		
2. Partial written exams.	(1) (2) (3) (4) (5)		
3. Final exam.	(1) (2) (3) (4) (5)		
4. With written works.	(1) (2) (3) (4) (5)		
5. Based on my performance in class.	(1) (2) (3) (4) (5)		
6. Any other? (Specify).	(1) (2) (3) (4) (5)		