A brief investigation of English language teaching and learning techniques applied to higher education students

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Abstract
Several decades ago, the English language has become a necessity for countries that do not have English as their mother tongue, attracting the attention of the academic, scientific, and economic communities. A great variety of techniques have been implemented in the teaching and learning of this language and have been adopted in most of the institutes of Higher Education in Latin American countries. The present research analyzes the different teaching and learning techniques based on the scientific literature used by English language teachers. The results are based on the academic performance of a group of Higher School Polytechnic of Chimborazo students. It is concluded that the combination of task-based teaching strategies (36.56 \% of students acquired skills in English language learning acquisition according to this technique adopted by teachers.) and grammar teaching technique (42 \% of teachers use this technique) has a better impact on English language learning.

Keywords: English language; Learning techniques; Teaching techniques; Higher education; Academic performance; Combined techniques.

1. Introduction
The last decades of the last century were characterized by continuous advances in science and technology, which have produced permanent transformations in societies. These discoveries are communicated
through media such as magazines, books, newspapers, manuals, brochures, software, Internet, television, videos, radio, DVD, and cinema; in most cases, these technological advances are expressed in the English language [1–3]. Most of the world's scientific, technological and commercial reports are written in English; half of the world's newspapers and three-fifths of the world's correspondence are written in English.

English has been considered a universal language for science and technology. Likewise, globalization has made the knowledge of this language an increasingly important requirement for optimal professional performance in different professions, especially in the business world, from a multinational organization to the smallest company or practically in the world of Tourism [4].

It is worth noting the boom of the English language in the last 40 years, due to the increase in the number of users in various societies and the role it plays as a communication tool. According to [5,6], 1.4 billion people live in countries whose official language is English; one in five of the world's population uses English with some degree of proficiency. By 2002, one out of every five people began studying English; about 70% of scientific reports are produced in English, 85% of the world's mail is written in English, and 90% of electronic information is transmitted in English [7,8].

In the Declaration of Policy for Change and Development of Higher Education, the United Nations Educational, Scientific and Cultural Organization (1998) states that higher education institutions are called to internationalize because the education provided to students is one of the most important engines for the generation of human and economic development, as well as one of the main instruments for the dissemination and transmission of cultural and scientific experience accumulated by humanity [9].

Regarding the education provided in Higher Education Institutes, UNESCO's International Commission for Education in the 21st Century (2005) [10], establishes that this education has played a preponderant role in preparing young people and adults for the world of work, through the acquisition of knowledge, skills, abilities, and competencies that allow them to improve their productivity and quality of life. The preparation of students should be facilitated under a holistic approach that includes, in addition to the cognitive components, the development of a sense of values, ethics, and attitudes to prepare the student for self-confidence [11].

In this context, it is mentioned that for the integral preparation of future professionals, the mastery of a foreign language is fundamental, both for its instrumental use and for the development of all the communicative skills of understanding and expressing oneself in oral and written
English. Hence, this language is the fundamental tool to complement the preparation of students for their performance in the world of work. The acquisition of a foreign language is a long-term process, in which students experience several stages of development and gradually become more proficient in the language [7,12]. The speed of knowledge acquisition and learning is influenced by multiple factors, including the individual's educational experience, language background, learning styles, cognitive styles, motivation, attitudes, and personality, which can be considered variables that influence learning [13–15].

The variables that could influence foreign language learning are located at the institutional or individual level. Among the institutional variables are the means of instruction, academic advising, methodologies, class hours, and didactic approaches used by teachers to facilitate the learning of English as a foreign language [8,16]. At the individual level, some modifiable variables stand out, such as attitudes, motivation, interests, memory, learning styles, and study habits, among others, and non-modifiable variables such as previous behaviors, age, and gender [17–21]. Some studies have reported that there is a direct correlation between affective aspects such as motivation, attitudes, and the goal of learning a second language [19,20,22].

Finally, it has become evident that over the years a series of methods have been developed that are applied to the teaching of the English language, which has their principles ranging from developing active reading, and reading comprehension to the competence of speaking in real situations and contexts of the learner. Therefore, this research is a brief analysis of some of the most commonly used methods for English language teaching and learning, as well as a brief history of their beginnings, the skills they focus on, and the roles of both teachers and students. The results of this study will identify the statistics of the method used with the best impact on the learning of this language.

2. Materials and methods

To express the methods and materials of this research, the different methodologies of teaching and learning the English language mostly used by the teachers of the subjects of this language of interest are synthesized. Also, the analysis of the academic efficiency of a group of students who took English as part of their academic curriculum.

2.1. Teaching methods, techniques, and principles

A brief analysis is made of some of the methods used for teaching and learning English, a brief history of their beginnings, the skills they focus on, the roles played by teachers and students, as well as the techniques that can be developed in the application of the methods, according to the results obtained, a design of a strategy that includes the most
appropriate principles and techniques to improve learning, respecting the individualities of the actors in the process will be obtained.

Figure 1. Classification of English language teaching and learning approaches

Under the Traditional approach, the grammatical translation method (see Figure 1) is known as the first method of teaching foreign languages and was used for learning classical languages. Consequently, it came to be known as the traditional method. It is based on the knowledge of the words and grammatical rules of the foreign language, so that the learner can understand sentences, how to construct them, and come to appreciate the culture and literature of the foreign language.

The Natural technique, as shown in Figure 1, is based on the assumption that an adult acquires a second language in the same way that a child acquires the first language. Within this approach, the direct and Berlitz methods are noted.

The structuralist technique is based on the audio-oral, situational and audiovisual methods. The main objective of this method is the teaching of the language through the systematic repetition of the basic structures of sentences, paying special attention to pronunciation. The characteristics of the method are summarized as follows:

- Oral language prevails over written language.
- The teacher is the protagonist of the class, controlling the content, pace, and style of learning.
- Grammar is not taught, but acquired inductively, i.e., it must come from practice. Rejection of the mother tongue and, therefore, of translation to avoid interference.
The content of the class is fixed in advance, but it is advisable to alternate different types of activities to avoid demotivating the students.

- The vocabulary and structures to be learned are the most frequent and should always be done in context.
- Errors are corrected immediately, as their repetition would make them become consolidated as such.

The communicative technique is mentioned as a didactic system that seeks to train the student for real and effective communication in the English language, not only in the oral aspect but also in the written one. To this end, the instructional process often employs texts, recordings, as well as authentic materials and activities that seek to faithfully imitate the reality outside the classroom. In the context of the approach, the communicative and notional-functional method is specified.

In humanistic discernment, the learner is the axis around which the whole teaching-learning process revolves. The development of the learner's abilities, needs, interests, expectations, and desires, to maintain their motivation, achieve their commitment, and encourage the progress of their autonomy in the mastery of the second language, is decisive in the transformation of the learner. The most recognized methods in this approach are total physical response, the method of silence, neurolinguistic programming, and the method of multiple intelligences, as shown in Figure 1.

2.2. Development of surveys to identify an appropriate teaching-learning methodology.

A survey was also conducted among professors at the Higher School Polytechnic of Chimborazo, of the English courses, to identify the methodologies of greatest incidence as a teaching-learning technique for the English language.

To identify the principles and techniques used in the classroom, a survey was applied to 19 English teachers. This measurement instrument comprises 16 items related to the topic, which was applied for classroom observation and validated by experts in the area of English; and allowed measuring the frequency in the use of the teaching techniques addressed in this research, with the following indicators: 5 (always), 4 (almost always), 3 (sometimes), 2 (rarely) and 1 (never).

The results of the data analysis were made from the bibliographic reference of several authors collected during the study. Quantitative statistical analysis was performed using JAMOVI statistical software.

2.3. Study of academic performance as a tool to identify an adequate teaching-learning technique.

According to the academic performance of the students who took the English course, we analyzed the incidence of their grades with the
methodology learned and the skills acquired according to the three aspects that were evaluated: writing, reading, and speaking.

The same questionnaire was administered to a group of 93 students who took and passed the English language course. The comparison of academic performance was made according to the methodology used by the teachers of the courses.

3. Results and discussions

The results obtained in this research work are based on the statistical analysis between the methodologies used by the teachers who taught the English course and the effect on the academic performance of the students who took the English course as part of their academic curriculum in the year 2022.

3.1. Statistics of the results obtained from the surveys carried out.

Figure 2. Frequency of use of teaching techniques and methodologies

The results obtained reveal that 83% (see Figure 2) of the 19 teachers who were interviewed always use techniques and methodologies for teaching English, and only 11% mentioned that they almost always use new teaching methodologies, which is a large number of teachers who teach their classes interactively. From these percentages, it can be seen in Figure 3, that only 5% of the teachers prefer to use the grammar-translation method; that is, translation, grammar teaching, dictation, reading analysis, questions and answers, and composition writing; having obtained higher percentages of grammar teaching techniques and reading analysis, with 42% and 21% respectively in their percentages.
Figure 3. Analysis of the results of the teacher survey

With an average percentage not far from the previous one, i.e., 16%, we find task-based teaching techniques, among which the following were mentioned: search and exchange of information to complete tasks, opinion-seeking activities (interviews and surveys), reasoning activities, non-focused tasks, focused tasks, presentations of results in tasks performed, and information reporting. With a low percentage of 5% of teachers stated that "sometimes" they use the techniques of the communicative approach, among which the following were noted: use of authentic material, cohesion and coherence in sentences and drawings, use of games, dramatizations, etc., and the use of the communicative approach.

Lastly, there are the techniques that come from the audio-lingual method, with 11% in the indicator always; the activities mentioned concerning this method were: memorization of dialogues, repetition of phrases, chain repetition, exercises of repetition of questions and answers, filling spaces in a dialogue, grammatical games.
3.2. Analysis of the academic performance of English language learners.

Figure 4. Analysis of the influence of teaching methodology on academic performance.

According to the statistical analysis carried out according to the student’s academic performance, it is observed (see Figure 4) that there is a direct correlation between the teaching methods used by certain teachers and academic performance. This correlation is observed to be due to three categories of teaching:

- Task-based teaching techniques, which have a high incidence in a large number of students (34), the same who successfully passed the English course.
- Grammar teaching techniques, which also have a great impact on the academic performance of the students (29).
- And finally, the technique of teaching by reading analysis, which is also observed to have favored the academic performance of the students (18).

The rest of the techniques show that there is insignificantly a slight improvement in the academic performance of the students. It is also observed that there is a slight difference between the use of the techniques of the grammatical translation method (5%), and the techniques based on the communicative approach (5%), about the indicator "always".

With these results obtained in this research work, it can be deduced that the techniques of the task-based approach (36.56% of students acquired skills in the acquisition of English language learning according to this technique adopted by the teachers.) and the technique of grammar teaching (42% of the teachers use this technique) have great incidence in the improvement of student’s academic performance, as well as, in the learning of this language.
4. Conclusions

The process of teaching and learning a language other than one's mother tongue can be difficult for adults. However, it can be noted that to achieve this objective there has been an evolution according to social changes and the concern of psychologists, linguists, and researchers to enrich and strengthen this process. It is important to point out that the above-mentioned approaches had their genesis in different periods. However, the impact of the technological revolution reinforced transformations in educational paradigms.

In the traditional, natural, structuralist, communicative, and humanistic approaches, psychological, and linguistic knowledge and educators present a range of methods, which aim to find the ideal method to make language learning fast and effective. Researchers provide principles, techniques, and tools for teaching a language other than the one learned since childhood.

According to the methods reviewed and analyzed in this research, 95% recognize the internalization of the second language through an interactive methodology between the educator and the learner that allows them to learn and interpret the new information. Within this perspective, scholars point out the use of principles, techniques, and tools that allow creation situations in the classroom so that students think in the language to be learned and do not resort to its translation to think and understand in the native language.

According to the results, the combination of task-based teaching techniques and grammar teaching is an adequate methodology in the teaching-learning of the English language in higher education students, guaranteeing an adequate level of knowledge and acquisition of relevant English language skills.

4.1. Acknowledgments

The authors would like to sincerely thank all the students and professors of the Higher School Polytechnic of Chimborazo who in one way or another kindly collaborated with their contribution to this research.

Bibliography