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The effects of using technological tools in the English virtual learning

Los efectos del uso de herramientas tecnológicas en el aprendizaje virtual del inglés

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Abstract

Each society has a mother tongue with which to exercise the need for communication, however, in contemporary history it has become necessary to promote a universal language for globalization, with English being the chosen language. The impact of virtual education in the teaching of the English language in these times is significant. In this context, it is aimed; To analyze the effects of using technological tools in virtual English learning, for this purpose a qualitative analysis is carried out, with a descriptive scope and non-experimental design, which included an educational intervention of 61 students and the English Director in a public school, for the analysis of the impact produced by virtual education in the teaching of the English language. The results obtained evidenced the positive impact that virtual education had on the teaching of the English language, although it enabled a better development of reading and listening comprehension skills, as well as oral and written expression.

Keywords: Virtual education; technological tools, English language teaching; reading and listening comprehension skills, oral and written expression skills.

Resumen

Cada sociedad tiene una lengua materna con la que practican la necesidad de comunicación, sin embargo, en la historia contemporánea se ha hecho necesario propiciar un lenguaje universal para la globalización, siendo el idioma inglés el elegido. El impacto de la educación virtual en la enseñanza del idioma inglés en los tiempos actuales es significativo. En este contexto se tiene como objetivo analizar los efectos de utilizar las herramientas tecnológicas en el aprendizaje virtual del idioma inglés, para tal fin se le realiza un análisis cualitativo, con alcance descriptivo y diseño no experimental, que abarcó una intervención educativa de 61 estudiantes y el jefe directivo de la Universidad Técnica de Manabí para el análisis del impacto producido por la educación virtual en la enseñanza del idioma inglés. Los resultados obtenidos evidenciaron el impacto positivo que tuvo la educación virtual en la enseñanza del idioma inglés, aunque facilitó un mejor desarrollo de las habilidades de comprensión lectora y auditiva, así como la expresión oral y escrita.

Palabras clave: Educación virtual; herramientas tecnológicas, enseñanza del idioma inglés; habilidades de comprensión lectora y auditiva, habilidades de expresión oral y escrita.

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Introduction

The current context almost forces the adaptation of virtual education focused on virtual teaching-learning processes. The learning of the English language and other areas of knowledge are not exempt from such a situation and it worsened with the arrival of COVID-19, which imposed mandatory confinement worldwide for all economic and social spheres, except medical health services. Through out the COVID-19 pandemic, there has been a growing reliance on the use of technology to learn, live, and stay connected” (J Pediatr Nurs, 2020), the principal reason of use the technological tools have been because the class have been being virtual.

Specifically, English language studies supported by virtual and communication tools have been part of a great development. Virtual tools are intended to meet the needs of people, by providing a series of ideas and facilities so that everyone can be communicated and educated on various topics, without depending on social class or where they are located, so which these should be used to their full potential, these media can be used for the instruction of children, youth and adults serving in part as an educational tool.

English by nature is complex, it is considered a universal language for globalization, due to the need to communicate with other countries that speak different languages, which is because in contemporary history it has become necessary to promote a universal language for which this language has been used. In Ecuador, according to Intriago, Villafuerte, Bello, & Cevallos (2019), this language is evident, because the country is in the line followed by dozens of nations around the world, in that knowledge of the English language, with emphasis on guaranteeing access to better employment, study or business opportunities, specifically to go even further into internationalization, maintaining plans for its introduction and development within the Universities and schools of Ecuador, (Alvarado Andino, Delgado Vera, Velásquez Galarza, Cáceres, & Strielka, 2021).

Based on the aforementioned, educational initiatives aimed at promoting the teaching and learning of said language have been carried out for more than three decades. However, students entering universities still have limited knowledge of the Anglo-Saxon language. In this scenario, the use of virtual education is accessed in the teaching of the English language, in technology careers.

The situation described gives rise to the need to improve teaching-learning methods through virtual platforms to raise the quality of education. Efforts to promote virtual education are not recent, however, contemporary history considers evaluating what position Ecuador is in, as a society.



The purposes of the Digital Educational Agenda 2017-2021 of Ecuador propose that didactic and technical support mechanisms be available for the development of educational innovations based on the use of educational technology (Guerra, 2022). Webs 2.0 and 3.0 (chat, wikis, blogs, etc.) can bring the learning of practice environments similar to the reality of an English-speaking community, an issue that has the potential to motivate students to learn that target language (Intriago, Villafuerte, Bello, & Cevallos, 2019)

Digital tools, when linked to the teaching of foreign languages, represent a significant help, which, in contrast to traditional teaching, contributes to the access of a number of options that favor the contents of bilingual learning to be available to the student, generating a significant and much faster learning, since both verbal and written learning can be linked in the dynamic activities proposed by these platforms.

The inclusion of these tools is a significant step for students, where educational institutions, by fully implementing the application of virtual instruments for teaching English, coupled with well-trained teachers and with a friendly teaching methodology with the student; can result in significant achievements for the Ecuadorian educational system. This can generate the development of professionals with an adequate bilingual domain and who can be prepared to enter other countries, where English is a great opportunity to advance (Alvarado Andino, Delgado Vera, Velásquez Galarza, Cáceres, & Strielka, 2021).

Learning the English language or consolidating its domain in Education is considered of vital importance, since through it you can consult relevant bibliography such as books or informative documents on the Internet, many of which are in this language. In various universities, schools structures are established and tools are provided to provide better learning of the English language, through the implementation of subjects in conjunction with agreements and scholarships awarded abroad to maximize learning (Alvarado Andino, Briones Zambrano, Torres Agurto , & Castro Mera, 2021).

Taking into consideration the approach carried out, and taking into account the objective of the investigation that is; To analyze the effects of using technological tools in virtual English learning, it is desired to identify if the use of technological tools adopted for learning English has contributed to students' knowledge. To verify what is stated, the look is intensified in two elements and they expose their relationship that they are, virtual education and learning the English language.



Materials and methods

The study has a qualitative approach, with a retrospective descriptive scope and a non-experimental cross-sectional design. In this context, to analyze the effects of using technological tools in virtual English learning, two surveys were applied (61 to students and an interview the English director and 10 teachers), to apply the surveys a population made up of third-year baccalaureate students and the english director from the public school, from whom the primary information was obtained. Also, the observation of classes is analyzed, where it is contemplated if these technological tools are capable of providing training to beginners and teachers on the correct use of them for virtual English learning.

Since the research approach is qualitative, probabilistic sampling is used, which involves randomly selecting statistically representative cases or units from a population. In accordance with the objective pursued and the qualitative approach of this research, which is reported by the proportion of the phenomenon under study in the reference population, the sample is calculated through equation 1:

$$n = \frac{NZ^2 * pq}{d^2(N-1) + Z^2 * pq} \quad (1)$$

Where:

- p = approximate proportion of the phenomenon under study in the reference population
- q = proportion of the reference population that does not present the phenomenon under study (1 -p).
- The sum of p and q=1.
- N = population size
- Z = critical Z value, calculated from the normal curve area tables. Also called confidence level.
- d = level of absolute precision. Referred to the amplitude of the confidence interval desired in the determination of the average value of the variable under study.

Based on the elements to calculate the sample in a finite population (when the total number of observation units that make it up is known, Table 1), the results of the sample are; 61 students in a public school and 1 professor who is the director of the area where the educational intervention is carried out when using technological tools in virtual English learning (Hernández-Sampieri & Torres, 2018). Once the sample was selected, a questionnaire was developed as a



tool for collecting information from third-year students in a public school, who participated in the educational intervention, and another questionnaire for the director of the area where the study is carried out (Pérez et al., 2021). This questionnaire was applied through a survey.

Table 1. Study population. Source: Author.

<i>PARTICIPANTS</i>	<i>POPULATION</i>
Third-year students who use technological tools for virtual learning of English	274
Teachers involved in the use of technological tools for virtual learning of English	10
<i>Total</i>	<i>284</i>

• **Survey design**

1. Enjoyment of studying English through virtual learning
2. Hours that you dedicate, every day, to the study of English
3. How much do you like to study English virtually?
4. You use technological tools for your English classes
5. How do you consider learning the English language using technological tools?
6. According to your experience in classes, you consider that technological tools are favorable for learning the English language
7. Would you like to use technological tools in the classroom?
8. How often has your English teacher considered you should use technology tools?
9. Do you consider that the use of technological tools is necessary in virtual English learning?

To obtain and evaluate the responses of the 61 students surveyed, a five-point Likert-type ordinal scale was used, where 1 corresponds to a completely disagree position with the answered statement, 2 is in disagreement, 3 is neither. neither agree nor disagree, 4 is in agreement and 5 is in complete agreement.

The second survey was designed to record the opinion of teachers in the intervention area at the public school, about the effects of using technological tools in virtual English learning and specifically, if these technological tools are capable of providing training to beginners and teachers about the correct use of them for virtual English learning. This instrument was applied only to the director of the intervention area.

The survey contained a questionnaire, was conceived by the following questions:



1. How many years have you been working as an English teacher?
2. Where and how did you learn the English language?
3. Based on your experience; virtual learning of English is more difficult than traditional
4. The technological tools used in the last two years in learning English have been favorable
5. Considers that the use of technological tools in learning English is a good option
6. What advantages and disadvantages does the use of technological tools have for students and teachers in learning English?
7. I would like to participate in a workshop on the correct use of technological tools for virtual learning of English

Results and Discussion

The main results of the research are addressed below. These are aimed at analyzing the effects of using technological tools in virtual English learning at the public school, in Ecuador. To do this, we proceed to evaluate the results obtained in each of the items applied to the student body and the director of the case study unit, as part of the survey. The 9 items surveyed had the objective of analyzing, from different facets, the contribution of ICT and online classes to educational quality, evaluated from the perception of learning the English language.

However, despite the high impact that virtual education has on the teaching of the English language was evidenced, many students pointed out the existence of barriers that affected the optimal use of technological platforms and this teaching-learning scenario. Such are the cases of a poor connectivity infrastructure that sometimes occurs to access classes efficiently, the limited availability of quality equipment, the existence of teachers and students who do not feel comfortable using technological tools and the use of platforms that are not very intuitive for the user.

In this regard, it was evidenced that 49% of the students surveyed like to study English virtually, 41% agree that many hours are dedicated every day to the study of English virtually. On the other hand, it was also evidenced that 62% of the students stated that they like to study English online.

Regarding the use of technological tools for English classes, 62% of the students agreed to their use. Likewise, 60% of the respondents stated that they fully agree that learning the English language is easier when using technological tools, because it enables the student to better develop reading comprehension skills.



Regarding the use of technological tools in the classroom, the students surveyed have a good acceptance with said tools, it was evidenced that 30% stated that they completely agreed and another 30% agreed with using technological tools for learning English. Regarding the frequency of use by the English teacher, to intervene in student learning, it was found that 60% of students note that teachers like virtuality for learning the English language and specially to make use of technological tools as mediators of the process. In this regard, it was shown that 70% of the students fully agree that the use of technological tools is necessary in virtual English learning.

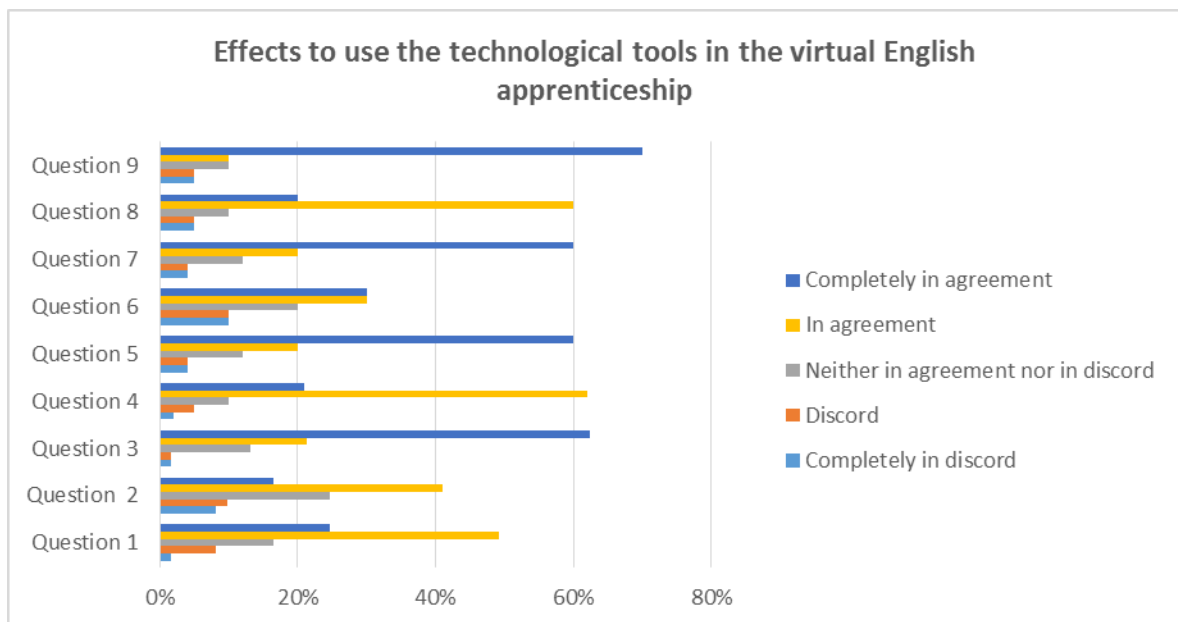


Figure 1. Effects to use the technological tools in the virtual English apprenticeship. **Source:** Author.

In the survey applied to the director of the intervention area, it was shown that the virtual learning of English sometimes becomes more difficult than the traditional one, as long as the teachers are not sufficiently prepared for this process. With the arrival of the COVID-19 pandemic, the use of technological tools for the teaching-learning process in general, specifically in learning English, became mandatory, the use of technological tools generated satisfaction in students.

In the same way, a high percentage of teachers consider that the technological platforms and the new digital educational resources, used during the two years of virtual education, facilitated greater learning and good practice of the contents addressed in all subjects, and with greater emphasis on the English language.



According to what was stated, it is considered that the use of technological tools in learning English is a good option. The main advantages that stand out are:

- English online, provides students with a better development of listening comprehension skills.
- A greater development of hearing capacity is achieved in students
- There is a substantial improvement in the ability of written expression.

The development of oral expression skills is not the best, which is considered one of the disadvantages of the use of technological tools for students and teachers in learning English. In this regard, the need to promote a greater collaborative environment and therefore the need to participate in workshops on the correct use of technological tools for virtual learning of English is evident.

In addition, it was found that technological tools are capable of providing training to beginners and teachers on the correct use of them for virtual English learning, for which teachers and students had to prepare themselves to face the situation that was imposed, given that virtual education had not been considered a topic of high interest.

DISCUSSIONS

The aforementioned, had to be reversed, in the presence of COVID -19 and stop seeing the use of Information and Communications Technology (ICT) in the Teaching-Learning process, as a novelty (Kundu & Bej , 2021; Ortega et al., 2021). However, in this context, the adoption of this new virtual class scheme, in the teaching-learning process, has presented difficulties with the different challenges of online learning policies, (Giatman et al. (2020) and Hinestroza et al. 2019) because the schools themselves, teachers and students were not prepared to switch from conventional learning to online learning (Beltrán-Baquerizo et al., 2020; Hashim et al., 2021; Ortega et al., 2021).

The situation described, alerted teachers and students in a public school and specifically the third-year students, with respect to learning the English language, since the approval of a foreign language is a requirement to start the degree process, where the student must demonstrate sufficiency in four levels of the foreign language. In this sense, starts were accepted to know how to use ICT in teaching.

Conclusions

It is concluded that there are positive effects with the use of technological tools in virtual English learning, in third-year students in a public school. The results obtained, through the evaluation of the surveys applied to students, show



satisfactory statistics, which are verified by other authors analyzed in the literature, who also refer that the use of ICT in virtual education favors the quality of the process of teaching-learning.

It was confirmed through the documentary analysis carried out that the execution of virtual classes, mediated by the use of technological tools, for learning the English language, were areas of opportunity little exploited to date. However, they had great acceptance and satisfactory results during the period of confinement caused by COVID -19.

It is eloquent that ICT have enabled an improvement in the quality of the educational process. In the learning of the English language in the public schools, in Ecuador, there was evidence of an improvement in the development of the skills of written expression, oral expression, listening comprehension and reading comprehension. These results were verified in the educational intervention carried out through the application of surveys to the 61 students and the director of the intervention area.

The results obtained allow us to affirm that the potential of ICT, such as the use of learning resources, virtual online teaching-learning platforms and collaborative work environments contributed to the positive effects of the use of technological tools in English virtual learning.

High percentages of satisfaction were found with the methods and means used in the virtual classes, the promotion of a collaborative environment, as well as an improvement in the skills of written expression, oral expression, listening comprehension and reading comprehension.

Conflicts of interest

The authors have no conflicts of interest.

Authors contribution

1. Conceptualization: Vianney Manoella Giler Moreira, Julio Rivadeneira Barreiro.
2. Data curation: Julio Rivadeneira Barreiro.
3. Formal analysis: Julio Rivadeneira Barreiro.
5. Research: Vianney Manoella Giler Moreira
6. Methodology: Vianney Manoella Giler Moreira, Julio Rivadeneira Barreiro.
9. Software: Vianney Manoella Giler Moreira, Julio Rivadeneira Barreiro.
10. Supervision: Julio Rivadeneira Barreiro.
11. Validation: Vianney Manoella Giler Moreira



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13. Writing – original draft: Vianney Manoella Giler Moreira, Julio Rivadeneira Barreiro.
14. Writing – revision and edition: Vianney Manoella Giler Moreira, Julio Rivadeneira Barreiro.

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