

Virtual Learning Environments (VLE) For Teaching English From The Ecuadorian Experience

By

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Abstract

Due to the importance of English in establishing academic and commercial relations in Ecuador, its teaching has been implemented through virtual learning environments (VLE) at all educational levels. The purpose of this paper is to describe the virtual environments used for teaching English from the Ecuadorian experience. In addition, an inventory of existing digital resources in the country was carried out, the most used virtual environments were consulted, and the indexes of productivity, human capital, competitiveness, innovation and social mobility were correlated with the English proficiency index (EPI) to determine the impact of the use of VLE on the communication skills of the Ecuadorian population. The results indicate that in Ecuador there has been a progressive growth in the use of EVA, with the Moodle platform being the most used for teaching English. However, Ecuadorians have a low command of English, which reduces their productivity and competitiveness in the labor field, so the capacities of teachers and teaching strategies should be improved to improve oral and written skills for English proficiency.

Keywords: learning, virtual classrooms, digital tools, information and communication technology.

Resumen

En Ecuador debido a la importancia del inglés para el establecimiento de relaciones académicas y comerciales, por ello se ha implementado su enseñanza mediante entornos virtuales de aprendizaje (EVA) en todos los niveles educativos. Este trabajo tiene como

objetivo describir los entornos virtuales empleados para la enseñanza del inglés desde la experiencia ecuatoriana. Se llevó a cabo un inventario de los recursos digitales existentes en el país, así mismo se consultó sobre los entornos virtuales más empleados y se correlacionaron los índices de productividad, capital humano, competitividad, innovación y movilidad social con el índice de proficiencia en inglés (EPI) para determinar el impacto del uso de EVA, sobre las competencias de comunicación de la población ecuatoriana. Los resultados indican que en Ecuador ha existido un crecimiento progresivo del uso de EVA, siendo la plataforma Moodle la más empleada para la enseñanza del inglés, sin embargo, los ecuatorianos presentan un bajo dominio del mismo, que reduce su productividad y competitividad en el campo laboral, por lo que se deben mejorar las capacidades de los docentes y de las estrategias de enseñanza para mejorar las competencias orales y escritas para el dominio del inglés.

Palabras clave: aprendizaje, aulas virtuales, herramientas digitales, tecnología de información y comunicación

Introduction

In the Ecuadorian educational system, English has been incorporated as a second language at all educational levels, which will generate added value for students to join higher educational levels and the labor market (Cango-Patiño & Bravo-Reyes, 2020), which is a key competence, considering the tourism, agricultural and agro-industrial potential of the country. However, as with the other subjects, the learning of English as a second language is also limited by the restrictions observed in the face-to-face teaching system, so pedagogical alternatives must be developed based on the use of information and communication technologies (ICTs) and the creation of virtual classrooms as communication tools taking advantage of the massification of social networks (Torres-Cajas & Yépez-Oviedo, 2018).

As is known in the world, English is one of the curricular areas that has more didactic strategies for its remote teaching and this is observed in the large number of distance learning courses that are offered by different media (Quiñones, 2021); these didactic programs take advantage of the resources and multimedia innovations of technological devices that facilitate the learning of a second language.

However, despite the increasing availability of digital resources for the interactive teaching of English, some data reflect that the efforts have not yielded the expected results, as reflected in the data presented by the organization Education First (2021), which reveals that in a study conducted in 112 countries, Ecuador ranked 90th in terms of English language proficiency, reflecting the low impact of the measures taken in terms of English language teaching.

Considering the above, authors such as Basantes-Arias et al. (2021) point out that new forms of virtual teaching should be implemented, which would enhance the advantages of this learning modality, such as its flexibility, versatility and effectiveness for learning foreign languages, providing endless methodologies to promote the development of skills and competencies to support future professionals in various higher education institutions.

Among the alternatives developed are the so-called virtual learning environments (EVA), which are defined as a group of computer and telematic tools that serve to establish communication for the development of teaching and learning processes (Silva-Quiroz et al., 2016); this computer application is designed to facilitate educational communication between participants in the teaching and learning process (Romero & Moreira, 2020), in addition, that

from the didactic point of view, it provides technical support to teachers and students to optimize the stages that make up the teaching and learning process (Quiroz, 2011), by allowing synchronous and asynchronous interaction between teachers and students, and offering learning resources that students can use at any time either in a remote or face-to-face connection (Maldonado-Manguí et al., 2020).

The EVA is presented as an alternative in the teaching-learning process, allowing the transformation of information towards new types of learning, directly affecting the roles of teachers and students, and course, in the entire surrounding context (Díaz, 2012). Therefore, through the use of technology, it is possible to create environments for learning, where it is possible to use a real context combined with virtual elements, for which a paradigm shift must occur in educational institutions, which has been propitiated by the COVID-19 pandemic, which forced the use of emerging technologies to continue with the teaching-learning process during the quarantine (Picón, 2020).

According to Ceballos et al. (2021), one of the advantages of using virtual environments is that it provides the possibility for students and teachers to connect from anywhere and at any time, which allows them to improve their speaking skills, in the case of learning English, additionally online education can significantly reduce the effects of anxiety in students throughout the learning process, managing to develop speaking skills using technological tools that provide teachers and students with an inclusive educational environment.

The successful experience of using EVAs in the case of English has been documented in several countries. For example, Spain is one of the first countries to use didactic e-learning units and information collection to establish interactivity in meaningful learning through various digital platforms, including Moodle. This is why the implementations of these tools have been extended essentially to complex subjects such as mathematics and English as a foreign language (Baelo, 2009). On the other hand, in the Latin American context, countries such as Ecuador, Mexico and Uruguay have promoted national learning strategies but still do not have e-learning tools, which are essential for a successful teaching-learning process.

Although there are many virtual resources, both in free access platforms as well as commercial software, to support the learning of English oral skills, a study conducted by Guanoluisa and Herrera (2018) points out that, in Ecuador, MOODLE is the most effective platform for learning English and therefore is the most used both in the initial and secondary education system and in most of the careers where English is taught through the use of EVA.

As previously mentioned, despite the use of EVA for teaching English both in the formal education system and at a particular level for the training of human talent employed in the country, the results show stagnation in the level of oral and writing English skills, which is attributed to factors affecting the effectiveness of the online modality in the teaching-learning process of English such as the quality of the platform used, the methodology of continuous assessment and teacher-student interaction (Cid et al. 2019), in the same sense Chauhan (2017), points out that two key factors that affect the ineffectiveness of EVA are: the training of teachers in the use of these methodologies (teacher interaction in the teaching-learning process) and the use of methodologies that motivate and involve students.

Considering the importance of learning English as an essential skill for students at the university level and in the labor field, the objective of this research was to describe the evolution of virtual learning environments (VLE) for teaching English from the Ecuadorian experience, evaluating from the technological conditions that govern access and connectivity

to the internet both at home and in educational institutions, the impact of VLEs on the level of English proficiency of the Ecuadorian population through some indexes such as productivity, human capital, competitiveness, innovation and social mobility with the English Proficiency Index (EPI).

To quantify the English language proficiency of the Ecuadorian population, the English Proficiency Index (EPI) was used, which is a standardized and objectively scored test designed to classify the language proficiency of the examinees according to their abilities in one of the six levels established by the Common European Framework of Reference (CEFR), which are described in Table 1 below.

Table 1. Levels were established for evaluating English proficiency considering the CEFR and the EPI.

CEFR	EPI score	Competencies achieved
C2	700-800	Can easily understand virtually everything heard or read; summarize information from different spoken and written sources; reconstruct arguments and stories into a coherent presentation; and express him/herself spontaneously, fluently and precisely.
C1	600-699	Can understand a wide range of demanding, longer texts and express him/herself fluently and spontaneously; use language flexibly and effectively for social, academic and professional purposes and produce clear, well-structured, detailed texts on complex subjects.
B2	500-599	Can understand the main ideas of complex text; interact with a degree of fluency and spontaneity; produce clear, detailed text on a wide range of topics and explain a point of view on a topical issue
B1	400-499	Can understand the main points of a clear standard input on familiar matters commonly encountered at work, school, leisure, etc.; can cope with most situations that may arise during a trip; produce simple connected text on topics that are familiar or of personal interest and describe experiences and events
A2	300-399	Can understand sentences and frequently used expressions; communicate during routine tasks requiring a direct exchange of information on familiar matters and describe in simple terms aspects of their experience, immediate environment, and matters in areas of immediate need
A1	200-299	Can understand and use familiar everyday expressions and fundamental phrases; can introduce him/herself and others and can ask and answer questions about personal details.

Source: *Education First (2021)*.

However, the EPI index reduces the classification to 4 bands denominated according to the score obtained: very high, high, moderate, low and very low, as described in Table 2.

Materials And Methods

To determine the impact of virtuality on English language learning, it is proposed to use the historical, logical method to interpret the information gathered in order to establish a

link between the teaching process through virtual platforms and its impact on the English language learning of university students and its possible impact on the professional performance of Ecuadorians.

The first variable to establish the feasibility of the use of virtual environments in the Ecuadorian educational environment was to evaluate the evolution of the availability of access to computing devices and connectivity of the Ecuadorian population, both in their homes and at the school level, for this purpose the database of the National Institute of Statistics of Ecuador was consulted for the period 2015 and 2020 and variables such as technological equipment of Ecuadorian households, internet access, frequency of internet use and technological skills of the Ecuadorian population were evaluated, whose data can be found at www.inec.ec

Secondly, the connectivity capacities of Ecuadorian educational institutions were described for the school periods from 2014-2015 to 2021-2022, taking as a reference the data on the educational evolution of the Ministry of Education of Ecuador, which can be consulted at www.mineduc.ec

The use of virtual environments in the teaching of English as a second language was documented through a systematic review in the databases SCOPUS, GOOGLE ACADEMIC REDALYC, SCIELO and LATININDEX, where research related to the type of use of virtual environments used, the educational level where it was implemented, the achievements and difficulties in its implementation were reviewed.

Table 2. *Levels are established according to the weighting of the EPI index according to the level of English proficiency.*

Band	Skills
Very high	Use appropriate and nuanced language in social situations, Read advanced texts with ease Negotiate a contract with a native English speaker.
High	It is a presentation at work; Understand television programs and Read a newspaper.
Moderate	May participate in meetings in the area of expertise; Understand song lyrics, and write professional emails on familiar topics.
Download	Can function in an English-speaking country as a tourist; participate in small talk with colleagues, and understand simple emails from colleagues.
Very low	Can introduce him/herself (name, age, country of origin); Understand simple signs and give basic instructions to a foreign visitor.

Source: *Education First (2021).*

To determine the impact of the use of EVA on the Ecuadorian population's communication skills and English proficiency, the productivity, human capital, competitiveness, innovation and social mobility indexes were correlated, which were obtained from the World Bank 2020 report and are described below.

Productivity indices: The Productivity Capabilities Index (PCI) is an online portal with publications, manuals, resources and tools developed by the United Nations Conference on Trade and Development, which allows policymakers to measure their countries' performance in achieving their national development goals, as well as their capacity to meet the UN Sustainable Development Goals (SDGs) (UNTAD, 2021).

Human Capital Index: The Human Capital Index is a report prepared by the World Bank, which measures which countries are the best at mobilizing their citizens' economic and professional potential. It quantifies how much capital each country loses due to a lack of education and health. It ranges on a scale between 0 and 1, where 1 means the maximum potential is reached. (Kraay, 2018).

According to Lanvin et al. (2019), the global competitiveness index establishes the relationship between human talent capabilities and their link to competitiveness. For this, the variables are grouped into talent enablers, attraction, growth, retention and production in terms of vocational skills and global knowledge, which aims to provide governments and companies with the data from more than 125 countries needed to inform their decisions on talent policies and strategies to improve talent competitiveness.

Global Innovation Index: The Global Innovation Index was developed by the World Intellectual Property Organization to highlight innovation strengths and weaknesses and particular gaps in innovation metrics by integrating around 80 indicators, including measures on the policy environment, education, infrastructure, and knowledge creation of each economy. (Zamora & Favila, 2018)

Social Mobility Index; The Global Social Mobility Index was developed by the World Economic Forum to compare 82 global economies and is designed to provide policymakers with a means to identify areas to improve social mobility and promote equally shared opportunities in their economies, regardless of their development (Salido & Fachelli, 2020).

Data analysis

The evolution of historical data on technological resource availability and internet access was described using descriptive statistics. At the same time, the relationship between the economic, social and human development indexes was evaluated using correlation analysis with the EPI index through the correlation curves presented in the English language proficiency report for the year 2021.

These indexes were correlated with the EPI index, whose values were obtained from the 2021 EF English proficiency report, and from the EPI obtained by Ecuador, it was possible to estimate the indexes of productivity, human capital, competitiveness, innovation and social mobility, in order to evaluate the capabilities of the Ecuadorian labor population in terms of English proficiency.

Results

The success of implementing virtual environments as a method for teaching English will depend to a large extent on whether educational institutions and Ecuadorian households have electronic devices that allow access to this type of tool. In this sense, as shown in Figure 1, progressive growth in the percentage of households with computer equipment, particularly laptops, has been observed, reaching its maximum peak in the year 2020.

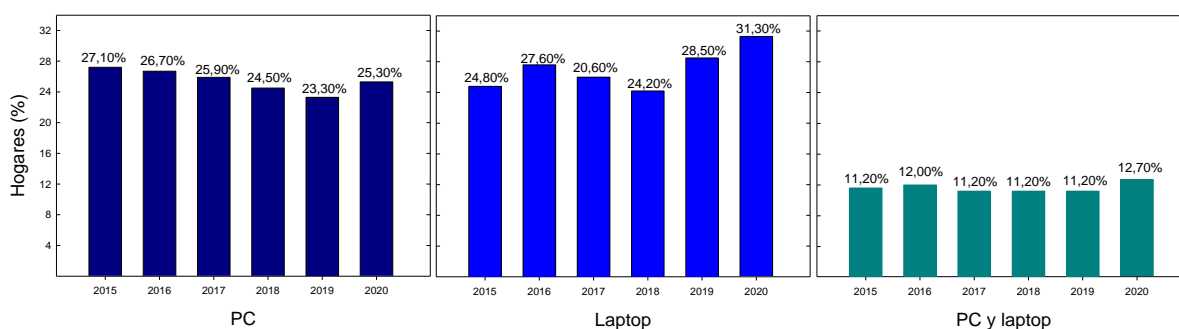


Figure 1. Technological equipment of Ecuadorian households in recent years in Ecuadorian households. Source: INEC (2020).

A better provision of technological equipment may be a response first of all to the interest of the population in acquiring computer equipment, especially by the younger population (Trujillo, 2020), and it is also linked to economic growth resulting from the increase in the GDP of the Ecuadorian economy (Chamba et al. 2021), as well as the plans of the Ecuadorian state to stimulate the economy. However, the percentage of households with access to technology is still low due to the existing social gap in Ecuador (Lagos & Garcés, 2020), where despite the social invasion and economic growth, high poverty levels remain.

Other technological tools that can be employed for the use of EVA for learning English is the use of smartphones, due to their portability and connectivity capacity, as well as the advantage of having a low cost compared to computer equipment, in Ecuador has been observed (Figure 2) an increase in the population of different ethereal groups with access to cellular technology.

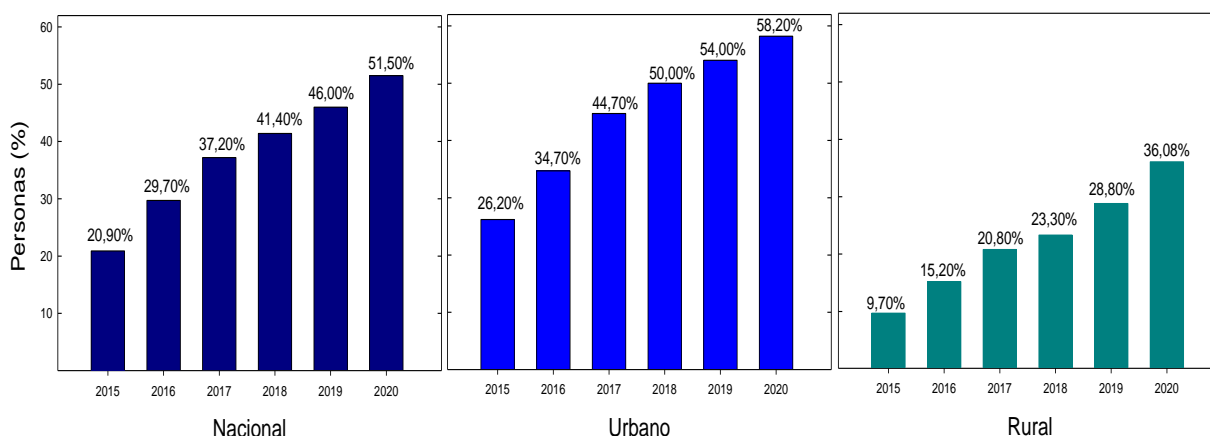


Figure 2. Percentage of people with smartphones in Ecuador. Source: INEC (2021).

Despite the increase in people with access to smartphones, it is observed, as described in the case of computer equipment, that this growth is greater in urban areas than in rural areas (Samaniego-Moncayo et al., 2020) due, among other reasons, to socioeconomic conditions that limit the population of these communities to access this type of technology (Guallo & Guadalupe, 2018), despite the importance it has not only in the communicational field but also in the educational field.

Not having access to this type of technology and being unable to participate effectively in using EVA for learning English creates a technological and cultural gap among the population (Paredes-Parada, 2019). In addition, the lack of access to new learning strategies will increase exclusion and inequalities at the school level (Vivanco-Saraguro, 2020).

For EVAs to be successfully implemented, it is not enough for households to have state-of-the-art computer equipment; they must also have access to the internet. Figure 3 shows increased Internet access in recent years, especially in the urban sector; however, access is still limited in rural areas.

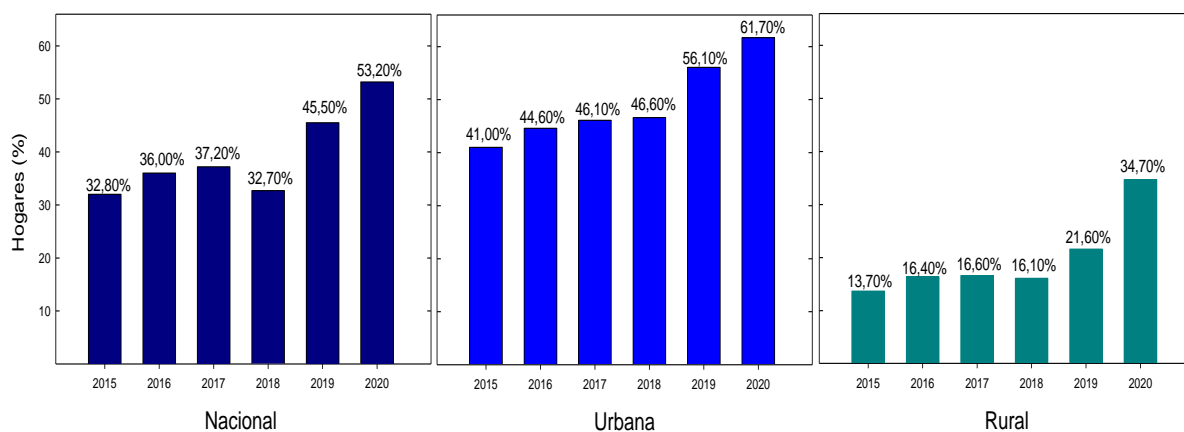


Figure 3. Percentage of households with Internet access in Ecuador. Source: INEC (2021).

Lower internet access in rural sectors may be due to geographical conditions that hinder connectivity (Flores-Cueto et al., 2020), as well as the socioeconomic conditions of the population, which are more difficult in terms of household income compared to the population of urban areas (Gómez et al., 2018), this creates another inequality when it comes to the use of VAS and the ability to acquire skills in the management of the English language, fundamental tools some rural areas, especially for the development of tourism activity.

Despite the increase in households with computer equipment and greater access to the internet, the results presented in Figure 4 reveal that not all the population uses this tool. Therefore, it is very likely that not everyone may be willing to use VAS for learning English.

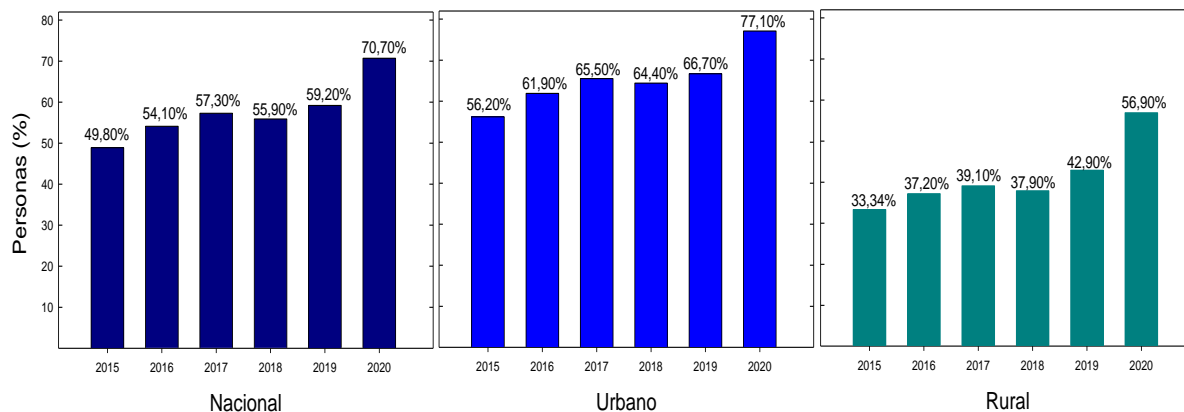


Figure 4. Percentage of people using the Internet in Ecuador. Source: INEC (2021).

While the use of VAS would be a mandatory task at the school level, it is worth noting that learning English should be part of every economically active Ecuadorian population because it is a valuable tool to improve job opportunities (Chávez-Zambano et al., 2017), especially in the commercial and tourism sector, however even though the use of the internet has increased, still, some limitations, associated with some groups reluctant to use technology, as well as the lack of skills in the management of computer tools that may explain this situation (Zanfrillo & Artola, 2018).

One of the factors that may limit the use of virtual environments is the ability of people to use computer tools correctly; however, a positive aspect is that the age group between 15 and 49 years old, which is the one that potentially uses EVA for learning English both in education and job training, has seen a significant decrease in digital illiteracy as shown in Figure 5.

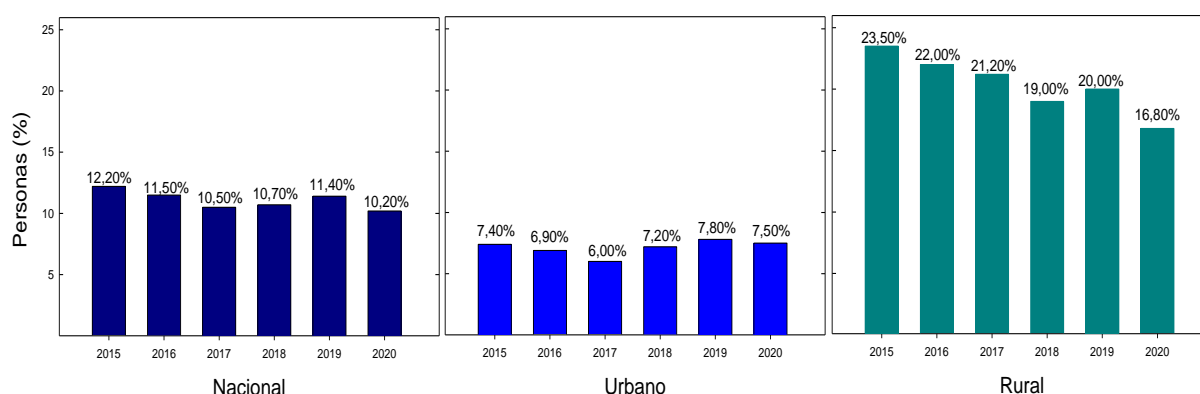


Figure 5. Percentage of people aged 15 to 49 years old who are digitally illiterate in Ecuador. Source: INEC (2021).

The reduction of digital illiteracy is a result of the updating of curricula at the elementary, middle, high school, secondary and university levels, which include the teaching of computer science as a mandatory subject (Yoza & Villavicencio, 2021), as well as the training programs by labor competence, developed both in public and private sectors in Ecuador, which seek to improve competencies in the area of computer science, which increases the possibility for the potential use of VAS for learning English; however, the deficiencies in English proficiency indicate that these strategies have been ineffective, as the country ranks 90th in competencies associated with the use of this language (Education First, 2021).

The previous results described how access to technological equipment and connectivity to computer equipment in Ecuadorian households was reflected in increased computer skills and, therefore, a reduction in digital illiteracy. Now, researchers analyze how this factor has behaved in the Ecuadorian educational environment.

In this order of ideas, Figure 6 shows how there has been a progressive increase in the number of educational institutions in Ecuador with Internet access, especially in the current school year, this in addition to the provision of technological equipment is an advantage to implement the use of EVA for learning, especially in critical subjects such as mathematics and English.

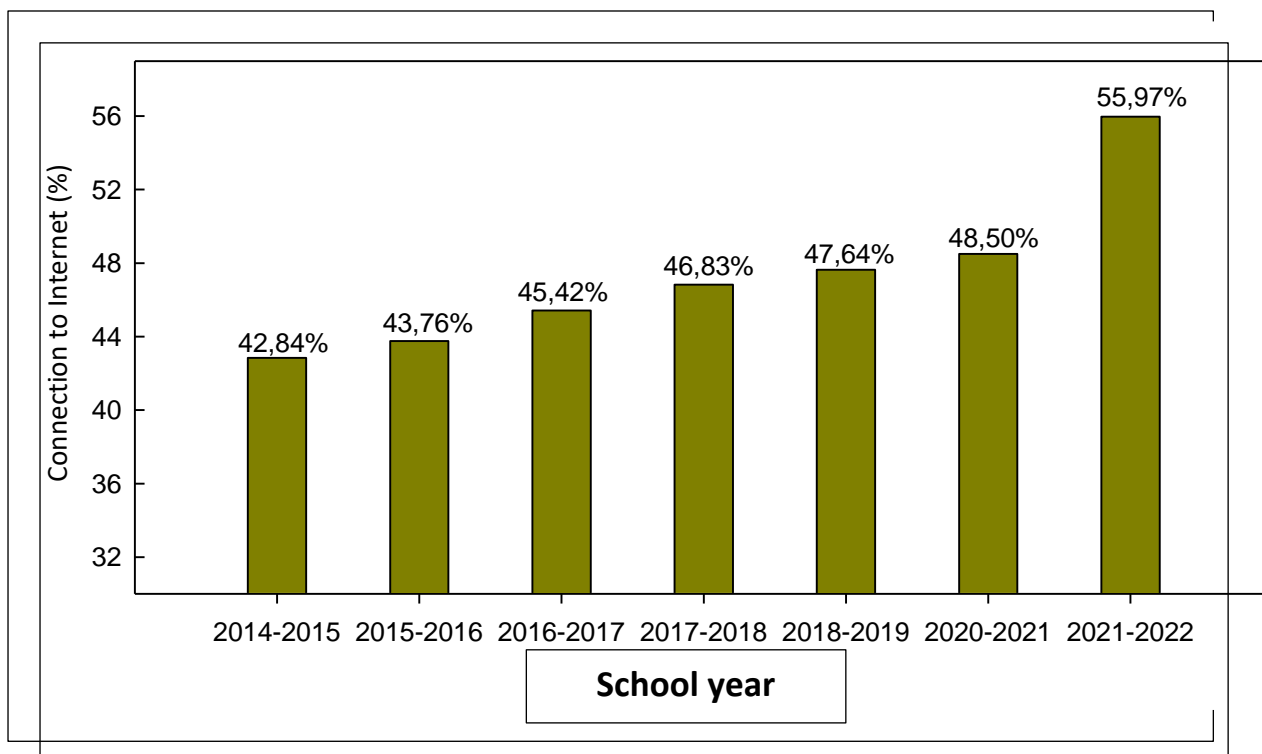


Figure 6. *Evolution of Internet access in Ecuadorian educational institutions.*
Source: *Ministry of Education of Ecuador (2021)*

The increase in the number of educational institutions with internet access is due, among other reasons, to the increase in the social investment of the Ecuadorian state (Alvarado et al., 2019), both in the technological and educational areas, which can be understood as the understanding of the social responsibility of the state to be able to give students of all educational sectors of technological tools for the development of new learning styles, this factor is determinant for learning, but its most significant impact has been observed during the pandemic period, where it was reported in a mandatory way to use online teaching (Sumba et al., 2020), due to the sanitary conditions that affected school attendance in a face-to-face manner, due to the sanitary measures taken to reduce the spread of COVID-19.

Table 3 describes the main VAS used for teaching English, highlighting the Moodle platform as the most used at different levels of education, according to Andino et al., 2021.

Table 3. *Main VAS is used for English language learning at different levels of education in Ecuador.*

Career Course	Workshops
Moodle	Google Apps
Doles	Eventbrite
Blackboard	Meerup
Chamilo	
Extension courses	Diplomates
Moodle	Google Apps
	Eventbrite
	Yahoo groups

Source: *Own elaboration with information from Andino et al., 2021.*

In addition to the EVA, there are different tools such as sites or pages, web and applications that can be downloaded to mobile devices to achieve English skills. Vera and Lopez (2019) point out that there are a varied group of applications, mostly with free access (27 websites and 20 mobile applications), of which seven have audio applications; the authors conclude that although there are many resources that allow learning English, they have not undergone a quality assessment.

According to Medina (2013), there are tools within the new platforms that facilitate learning, make communication and collaboration flow through the course, and are user-friendly. The main advantage is that the teaching-learning process is flexible in time and location.

In the case of university education, a positive correlation should therefore be expected between English language skills and the productivity index (PI). However, with an EPI of 440, Ecuador has a PI of approximately 25, as shown in Figure 7, which is notably lower than the productivity observed in countries with a very high command of English.

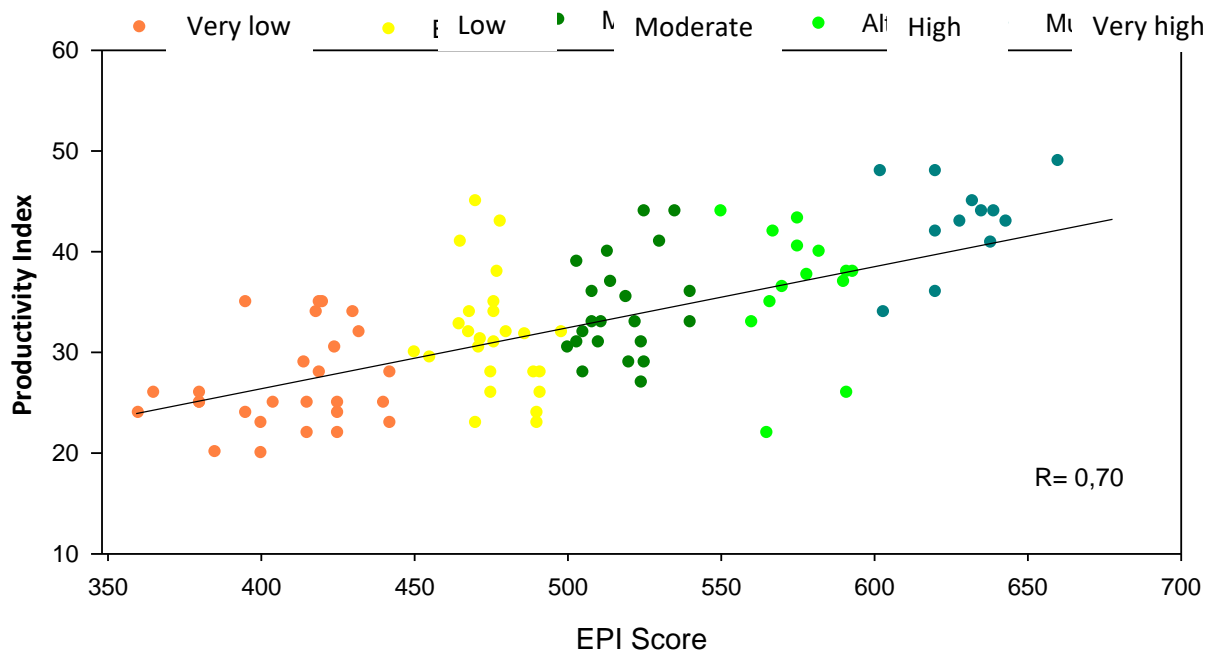


Figure 7. Relationship between the English Proficiency Index (EPI) and productivity.
Source: Education First (2021).

Ceballos et al. (2018) point out that developing countries are in the last position in terms of efficiency with the English language, which leads them to occupy low positions in the labor market ranking because rigid labor schemes characterize them, giving African and Latin American countries as an example. In this regard, the author points out that Ecuador occupied a position of 113 in the labor market ranking, which is a product of the lack of labor flexibility.

In addition, there is a positive relationship between the EPI and the human capital index (HI), considering that better-trained human talent will be more productive. Among these competencies is mastering English as the universal language for commercial relations. For example, Figure 8 shows that Ecuadorian human talent with a deficiency in English proficiency will have an HI below 0.5, which is significantly lower than that observed in countries with advanced competencies in English proficiency.

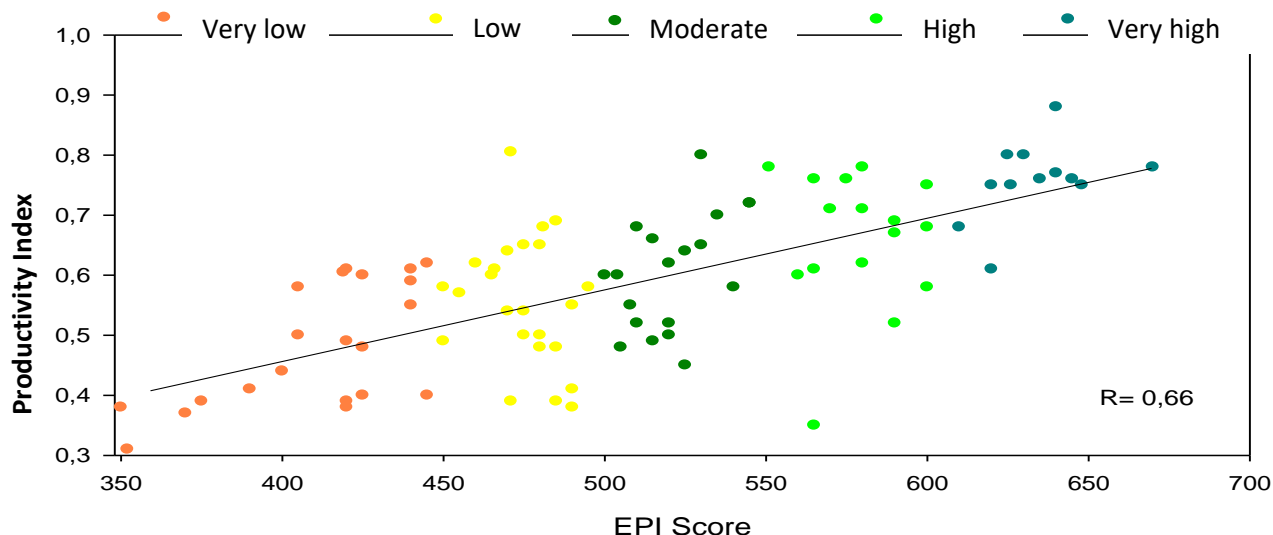


Figure 8. Relationship between the English Proficiency Index (EPI) and the Human Capital Index (HCI).

Source: Education First (2021)

Alvarado and Ortiz (2018) point out that there is an important connection between education and income, so as human capital increases, so does per capita income; the author points out that there is a great difference between the different provinces of Ecuador since there are few that have a stock of highly qualified capital, the vast majority lack skills and abilities for the management of digital tools and English as a second language.

The correlations in the figure show that countries with a greater command of English are more competitive than countries such as Ecuador with a low command of the language. Therefore, in the case of Ecuador, the competitiveness index (CI) is expected to be below 30 (Figure 9), which has a negative impact on the ability to compete on equal terms in the international market.

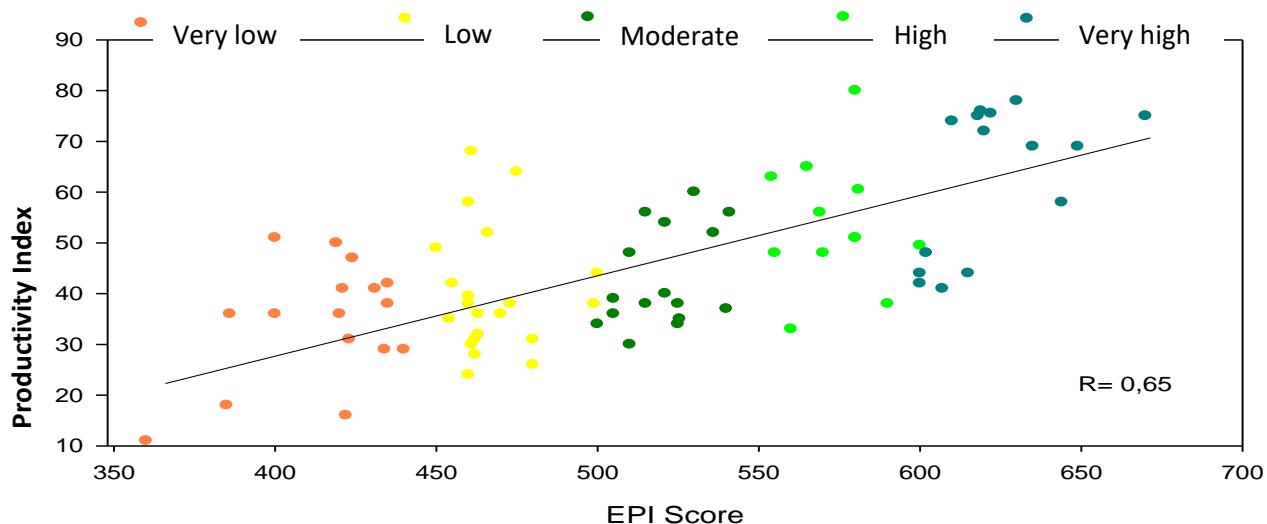


Figure 9. Relationship between the English Proficiency Index (EPI) and the Competitiveness Index (CI).

Source: Education First (2021)

Maldonado et al., 2018 point out that the competitiveness index in Ecuador has been increasing rapidly, but it is still characterized as an economy based on efficiency and not on innovation; the authors note that the few advances observed in the levels of competitiveness are manifested thanks to entrepreneurial activity. However, the human talent in the country lacks the mastery of English, which would allow it to be more competitive in the international market.

In this sense, it has been estimated that countries with a higher EPI have a higher global innovation index (GII) compared to countries such as Ecuador, which, having a very low EPI, has a GII of approximately 22 (Figure 10), lower than that observed in countries with high EPI values whose GII is higher than 40.

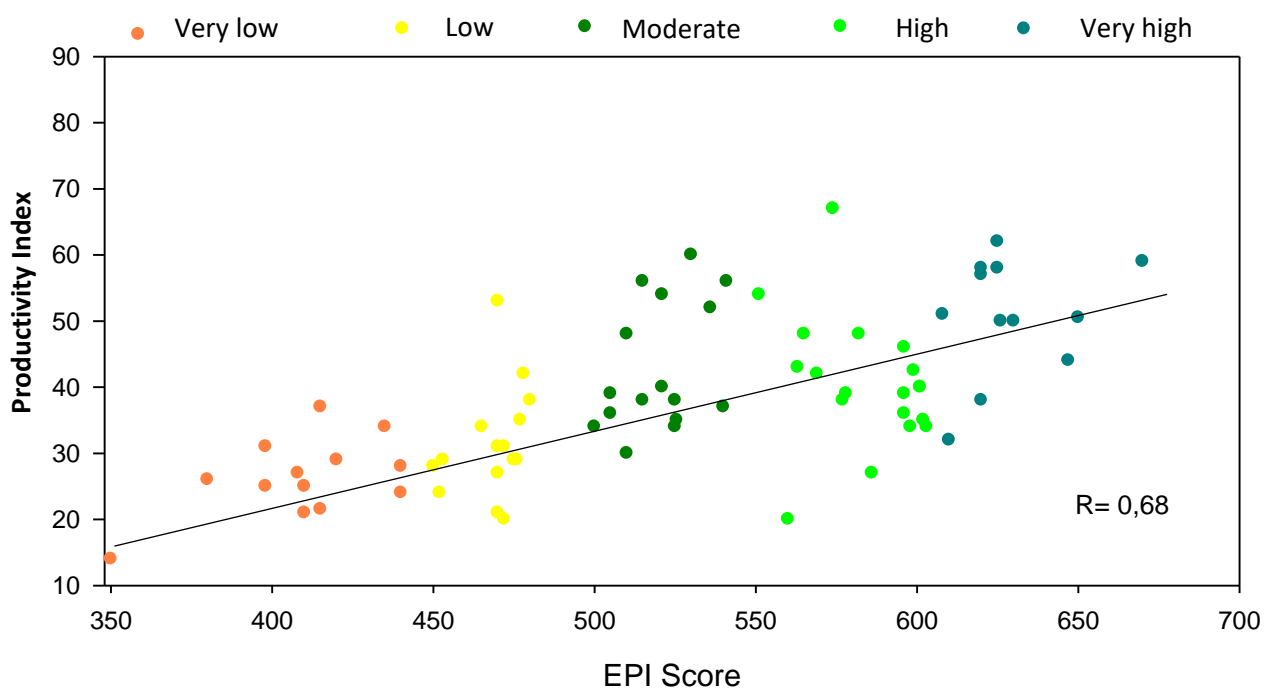


Figure 10. Relationship between the English Proficiency Index (EPI) and the Global Innovation Index (GII).

Source: Education First (2021)

Diaz et al. (2019) point out that thanks to innovation have increased the competitiveness levels of Ecuador in the international market; despite this still does not reach a higher rate of innovation, many factors affect entrepreneurship and innovation, but there are companies whose goal is to invest in innovation and allocate part of their income to research and development, achieving improve their products and giving a better quality of service, for this, it is essential to also invest in the training of human talent, especially in areas such as computer skills and English proficiency.

The results found for the productivity, human capital, competitiveness and innovation indexes show that Ecuadorian professionals present failures in some transversal competencies, which are essential for them to insert themselves competitively in the global labor market and could make Ecuadorian commerce and industry grow. These results are the result of failures in competencies such as English proficiency, where it has been observed that since the EPI has

been calculated, Ecuador is in the very low band, occupying the 90th position among 122 countries, with an EPI of 440, which makes it uncompetitive for most commercial activities, as shown in Figure 11.

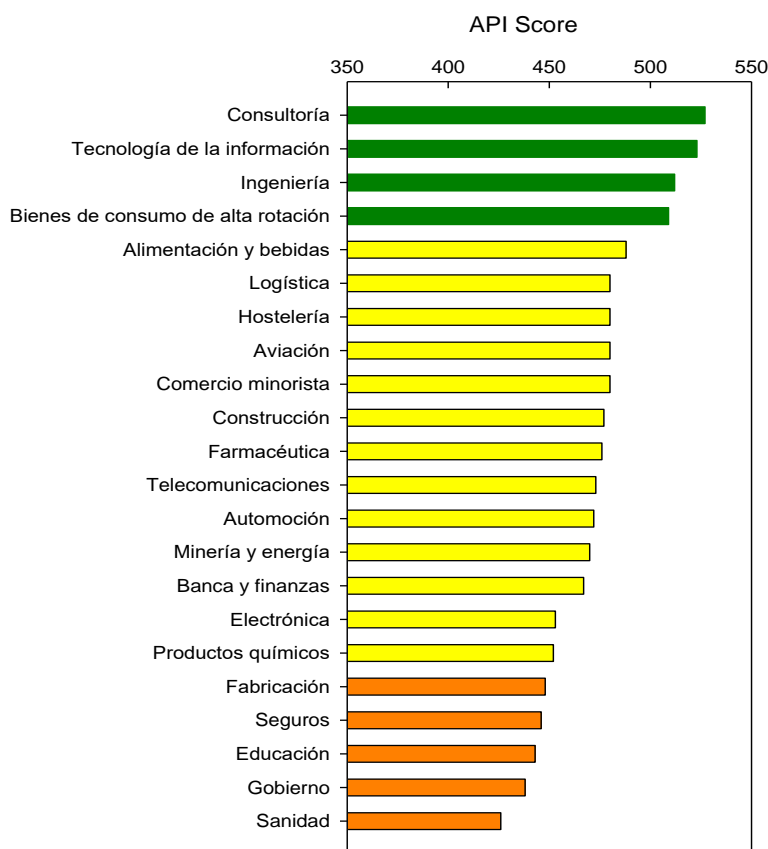


Figure 11. English proficiency as a function of EPI calculated for 2021 in different business activities.

Source: *Education First (2021).*

According to Segura (2018), Ecuador is a country that has several strengths that need to be maintained and enhanced in order to raise competitiveness indexes. Although for this, the country must be at the forefront of infrastructure created and achievements in health and primary education, the authors point out that the country is strongly lagging in its financial development, technology and trade openness, which makes it far behind the regional average due to the quality of institutions and inefficiency in the labor market, the latter closely related to the low performance in English proficiency as reflected in the results of the EPI index.

The management of competencies in English not only seeks to improve opportunities in the labor field but this is associated with greater social mobility and, therefore, better living conditions. Therefore professionals with higher EPI will have greater access to better-paid jobs and, therefore better living conditions for workers compared to employees with lower EPI. For example, Figure 12 shows that in the case of Ecuador, with an EPI of 440, a social mobility index (IMS) of 40 is estimated, which is lower than that observed in countries with a high EPI, so that social gaps would remain as a result of lower skills for access to more qualified jobs.

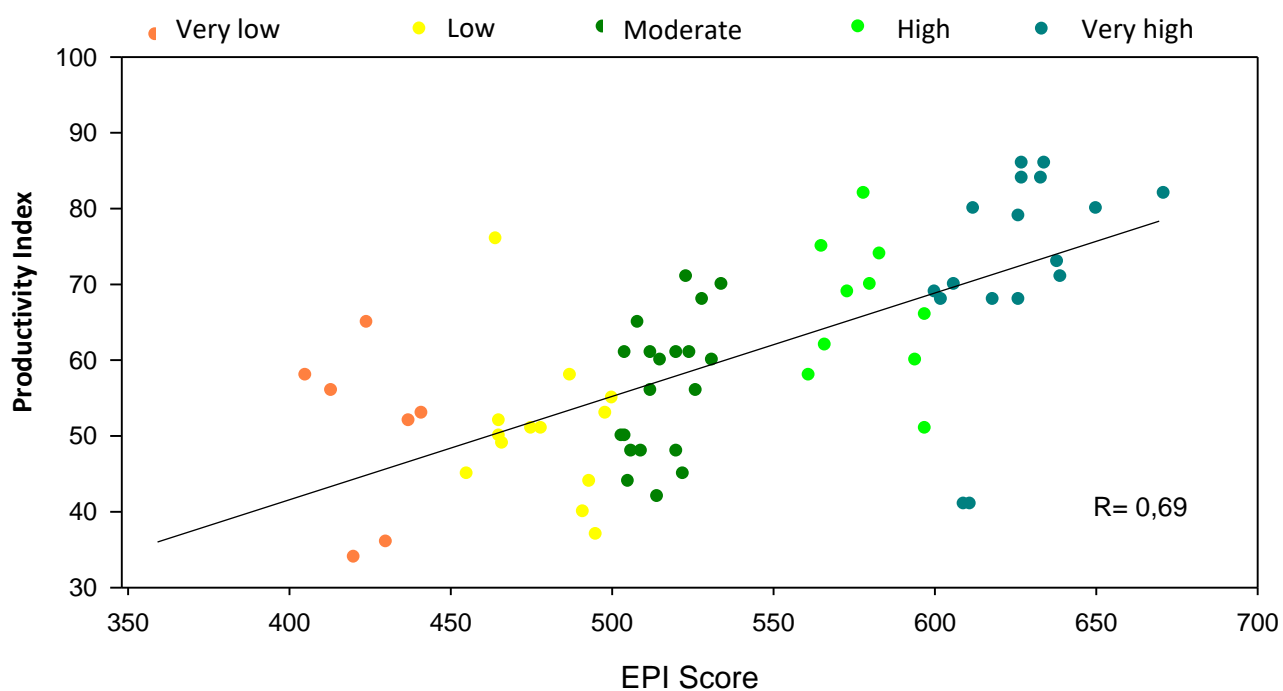


Figure 12. Relationship between the English proficiency index (EPI) and the social mobility index (IIG).

Source: Education First (2021)

Alburja (2019) points out that social mobility in Ecuador depends on double inclusion, i.e., it is affected by growth in both social and productive areas, which are essential to achieve the welfare of the population. Although, despite this, the authors point out that there is no symmetry between social progress and productive progress. When analyzing the evolution of adequate employment and even worse, decent employment, part of these limitations to achieving a well-qualified job are products of the workers' lack of those competencies that generate greater competitiveness and increase the valuation of the labor force, as is the case of English proficiency, which is why throughout the document the importance of improving Ecuador's position in the ranking of English proficiency has been highlighted, taking advantage of technological progress and the use of the EVA.

Conclusions

In recent years, there has been an increase in the Ecuadorian population's access to computer equipment at home and in educational institutions, where technological investment has improved connectivity, allowing the possibility of using virtual learning environments (VLE) for teaching English.

Research in the educational field at both secondary and university levels shows that Moodle is the most widely used EVA in Ecuadorian educational institutions; despite the interest of students and the acceptance of students, it is still necessary to provide technological training to all actors in the educational process for the effective use of this resource.

Despite technological innovations such as the use of VAS for teaching English at different levels of education in Ecuador, Ecuadorian professionals have a deficient command of this language which is reflected in a lower productive and innovative capacity of human

talent compared to professionals from other countries, which prevents their access to more qualified jobs, affecting social mobility and overcoming the existing socioeconomic gap between the different strata of the population, concerning the level of poverty still present in the country.

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