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Impacto de la tecnológica educativa en estudiantes de bachillerato, institución Emilio Isaías Abihanna, en Ecuador

Impact of educational technology on high school students, Emilio Isaias Abihanna institution, in Ecuador

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Palabras claves: tecnología, educación, impacto, estudiante, docente.

Resumen

Introducción: el estudio investigativo se centra en el impacto de la tecnología en la educación, específicamente en el curso de emprendimiento y gestión para estudiantes de tercer año de bachillerato en la Unidad Educativa Emilio Isaías Abihanna, Ecuador. **Objetivo:** evaluar el impacto de la tecnología educativa en el proceso de enseñanza-aprendizaje de emprendimiento y gestión en estudiantes de tercero de bachillerato en la Unidad Educativa Emilio Isaías Abihanna. **Metodología:** la metodología empleada fue cualitativa y descriptiva, utilizando observación y un cuestionario de 10 preguntas dirigido a 42 estudiantes. Los datos recopilados revelaron la importancia de la tecnología para mejorar la participación, la memoria y la creatividad en el aprendizaje. Antes de la implementación de la tecnología educativa, las clases carecían de interacción y colaboración entre estudiantes, resultando desmotivadoras. **Resultados:** la encuesta inicial indicó que el 29% utilizaba dispositivos para estudiar, mientras que el 71% no lo hacía. Sin embargo, el 83% consideraba esencial la tecnología para el aprendizaje, aunque el 17% no lo veía así. Respecto al uso de software educativo, el 71% se sentía cómodo, mientras que el 29% mostraba incomodidad, representando un desafío para mejorar el interés en su uso. Después de la integración de la tecnología, se observó un aumento significativo del 83% en el uso de dispositivos por parte de los estudiantes. El 90% percibió la importancia de la tecnología en el aprendizaje, notando un cambio positivo en la comprensión de las asignaturas y una mayor eficiencia en el estudio. El 95% experimentó una mejora en la colaboración entre compañeros gracias a la tecnología educativa. **Conclusiones:** la investigación sostiene que el uso adecuado de la tecnología en la educación, guiado por los docentes, promueve el desarrollo personal de los estudiantes y mejora su calidad de vida.

Keywords: technology, education, impact, student, teacher.

Abstract

Introduction: The investigative study focuses on the impact of technology in education, specifically in the entrepreneurship and management course for third-year high school students at the Emilio Isaías Abihanna Educational Unit, Ecuador.**Objective:**evaluate the impact of educational technology on the teaching-learning process of entrepreneurship and management in third-year high school students at the Emilio Isaías Abihanna Educational Unit.**Methodology:**The methodology used was qualitative and descriptive, using observation and a 10-question questionnaire directed at 42 students. The data

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collected revealed the importance of technology in improving engagement, memory, and creativity in learning. Before the implementation of educational technology, classes lacked interaction and collaboration between students, resulting in demotivation.**Results:**The initial survey indicated that 29% used devices to study, while 71% did not. However, 83% considered technology essential for learning, although 17% did not see it that way. Regarding the use of educational software, 71% felt comfortable, while 29% showed discomfort, representing a challenge to improve interest in its use. After technology integration, a significant 83% increase in student device use was observed. 90% perceived the importance of technology in learning, noting a positive change in the understanding of the subjects and greater efficiency in studying. 95% experienced an improvement in collaboration between colleagues thanks to educational technology.**Conclusions:**The research maintains that the appropriate use of technology in education, guided by teachers, promotes the personal development of students, and improves their quality of life.

Introduction

Technology has acquired a fundamental role in the advancement of different areas of life. It is undeniable that its integration in the educational field has generated significant transformations, contributing effectively to the development of teaching and learning methodologies.(Cruz et al., 2019). In the past, students were limited to face-to-face education, relied heavily on books and notebooks, and manually searching for information took considerable time. The introduction of technology has enabled online education, simplifying access to education in terms of location and schedule. In addition, it has introduced various innovative forms of teaching and learning that have been highly effective and well received in the educational field. Searching for information has been considerably simplified, and access to massive databases has become faster. Today, people can obtain information from any smart device and participate in meetings through video calls. Although the development and easy accessibility of technological means, such as the Internet, present obvious risks to daily life, especially among younger generations, the benefits of improving the quality of education for both children and adults are countless. Consequently, education has had to be reconsidered to offer a new mode of interaction and productivity through participation in virtual classrooms. It is for this reason that educational technology is recognized as the diversity of applications and devices that facilitate the integration of technological tools into educational

methodologies. This situation entails numerous advantages, such as stimulating collaboration, encouraging the exploration of new knowledge, facilitating understanding and providing autonomy (Lucaedu.com, 2023). Students have the possibility to interact, play and learn from various platforms, which promotes a participatory environment in classes and allows them to enjoy themselves while acquiring knowledge, thus facilitating a more complete and secure learning of the subject addressed. In addition, they have the option of learning remotely and at flexible times, personalizing their lessons according to their needs. For teachers, excellent organizational, planning and teaching tools are made available, considerably optimizing the time needed to review or advance in the content. Technological platforms enable the integration of all school staff, as students share concerns, teachers manage their groups and administrators supervise class achievements, generating true teamwork with effective control of progress in the teaching-learning process and the achievement of good results. Thanks to technology in education, school staff can stay informed about the needs of their students. Educational software has been developed that allows early identification of the risk of dropping out, with the aim of providing support to students. The COVID-19 pandemic has driven changes in personal routines,mobility and social interactions, leading to a deepening of human and technological relationships. In this context, Ciencia UNAM has demonstrated the need for these relationships to continue activities related to health, entertainment, faith, work, shopping and, of course, education. In turn, Dr. Marina Kriscautzky Laxague, coordinator of Technologies for Education at Hábitat Puma of the General Directorate of Computing and Information and Communication Technologies, highlights that "in order to be a citizen of this time, it is not only necessary to read and write in the traditional way, but also to be able to perform and communicate through reading and writing using digital tools" (García, 2020). The educational methodology has undergone significant changes, as students now focus on searching, analyzing and interpreting information instead of simply memorizing. The introduction of technology in classes encourages collaborative work between school staff and students. It is undeniable that new technologies are gaining more and more relevance in our lives as society evolves. Technology facilitates various areas of our lives, such as working in the office, maintaining family connections, and completing tasks from home. In addition, it plays a crucial role in education, allowing for various activities to be carried out in the classroom. However, while the incorporation of technology benefits student learning, it also poses challenges when used in the classroom. Therefore, in order to take full advantage of the benefits of technology in education, it is necessary to prepare and learn how to use it properly. In this way, we will be able to use it effectively, maximizing positive outcomes and avoiding potential problems. Gaining deeper knowledge about its use will contribute to training more skilled professionals and individuals, resulting in an improved lifestyle and a more favorable environment for all. It is undeniable that we live in a technological world, and young people, considered digital natives as they grow up with these technologies, use new forms of communication and

education. However, this extensive use of new applications by children and young people has also led to problems in these areas and in educational settings, as technology is not always used appropriately. At the beginning of each new school year, parents, students and teachers embark on one of the most crucial experiences for children and young people: learning, discovering, sharing and respecting. The work of teachers in direct collaboration with families is an extremely important task in society, although it is not always duly recognized. From an early age,Children spend most of their time in educational environments where teachers not only transmit knowledge but also values. The term technology encompasses tools that enable access, production, knowledge, communication and information, expressed in various formats (text, images, audio, video, etc.). In this context, it is clear that educational centers cannot ignore new technologies. Many educational establishments around the world have already incorporated these new technologies, and in an increasingly digital society, information and communication take on a fundamental role. The benefits that technology brings to the educational process include supporting teachers' explanations, teaching students to use technology in educational programs, and improving student engagement and motivation by leveraging technology as a resource. This facilitates active learning, enhancing students' ability to make decisions, prepare information, acquire knowledge, foster independence and promote self-education, both in group settings and individually. In addition, we cannot overlook the importance of quickly communicating information to parents and maintaining constant communication, even in the daily routine. Examples of new technologies present in the classroom range from electronic whiteboards, computers, tablets, iPads, to digital newspapers and magazines. However, the use of this technology entails challenges, as its implementation has sometimes occurred without adequate reflection to prevent possible negative effects. An initial observation reveals that many parents lack knowledge on how to use technology and are unaware of the content their children can access without establishing some kind of parental supervision or control, a crucial aspect. Likewise, despite the debate on whether new technologies can promote content and courses that stimulate attention and concentration, some experts argue that their use can be distracting and make it difficult to retain information in memory. In addition, they maintain that it promotes practices such as plagiarism, copy-and-paste learning, poor reading comprehension and isolation of students who are constantly in front of their screens, both during schoolwork and in their free time. Even possible health effects are mentioned, such as radiation from wireless devices and the promotion of a sedentary lifestyle. When these technologies are not used appropriately as support tools for searching for information and acquiring knowledge, there is a risk that they may generate an addictive problem in children and adolescents. Instead of using technology to support their learning,Some choose to participate in video games with their peers, which leads to problems, not only in terms of poor academic performance, but also by limiting their opportunities to participate in outdoor activities and direct contact with friends. This

has been a controversial topic. The question has often been asked whether technology is a positive or negative tool for society, and after analyzing, studying and proving in real cases, it is established that technology is definitely a fundamental tool for human development and for progress in society. Therefore, it is important that each person knows clearly where they are going and what objective they must fulfill so that they can take advantage of the necessary use of technology and leave aside the distractions that are also part of this progress, but that can be put aside in order to continue and obtain the desired knowledge of the case. In addition, tensions and disputes within the family increase due to the lack of knowledge on the part of parents on how to prevent their children from spending most of their time on video games, as well as the mistrust regarding the real amount of hours they spend playing online with their friends. Highly stressful situations can also arise when parents, by questioning, interrupting or prohibiting the use of cell phones or tablets for playing, generate in their children a feeling of restriction, anxiety or aggression, which could be described as a real withdrawal syndrome. Social networks and digital resources are additional forms of communication that are widely used by young people and adults. In academic or work environments, mastery of technology has become indispensable, allowing us to access information through the digital world that was previously difficult to obtain. However, it is crucial to keep in mind that the impact of technology depends largely on how each educational institution, family or student uses it. The use of technology seeks to facilitate the search, selection and analysis of information for all participants in the educational field, including society, teachers, parents and students. According to a report by The Economist Intelligence Unit, nations such as Finland, Hong Kong and Norway are progressing towards the widespread implementation of the Internet in all their schools, while in Turkey and South Africa, this availability will be restricted to half of educational institutions. In China, a plan has been in place since 2012 to introduce Information and Communication Technologies (ICT) in schools, with the aim of ensuring that, by 2020, 100% of its schools have broadband connections and online spaces for students.This effort has resulted in a significant increase in the presence of the Internet in Chinese educational institutions, from 25% to 88%, while the proportion of students per computer has decreased. In addition, online spaces for student and teacher learning have experienced exponential growth, from 600,000 to 63 million (Mosquera, 2019). According to Selwyn (2019), it can be said that in the minds of many adults there is an almost automatic connection between digital technology and the quality of contemporary education. These external imperatives to change education are evident in both developed and developing countries. These demands and pressures have generated significant efforts worldwide to increase the use of digital technology in education. Over the past two decades, we have seen how digital technology has become a crucial component of educational policies globally. Virtually all countries have detailed strategies related to “education and ICT” (Selwyn, 2019). Moreover, in Ecuador, this requirement has been implemented since 2002 through programs supported

by local governments, such as Edufuturo in the province of Pichincha (2002), QuitoEduca.Net in the city of Quito (Albornoz, 2019) and more Technology in the city of Guayaquil. In addition, the central government has started to develop policies and programs, such as the Ecuador Digital Strategy in 2010 and the Digital Agenda of the Ministry of Education in 2017. These projects share the common characteristic of promoting connectivity in classrooms, the use of computers, tablets and digital repositories. All of them also commit to following principles of inclusion, transformation and development (Albornoz, 2019).This requirement has been implemented since 2002 through programs supported by local governments, such as Edufuturo in the province of Pichincha (2002), QuitoEduca.Net in the city of Quito (Albornoz, 2019), and Más Tecnología in the city of Guayaquil. In addition, the central government has begun to develop policies and programs, such as the Ecuador Digital Strategy in 2010 and the Digital Agenda of the Ministry of Education in 2017. These projects share the common characteristic of promoting connectivity in classrooms, the use of computers, tablets, and digital repositories. All of them also commit to following principles of inclusion, transformation, and development (Albornoz, 2019).This requirement has been implemented since 2002 through programs supported by local governments, such as Edufuturo in the province of Pichincha (2002), QuitoEduca.Net in the city of Quito (Albornoz, 2019), and Más Tecnología in the city of Guayaquil. In addition, the central government has begun to develop policies and programs, such as the Ecuador Digital Strategy in 2010 and the Digital Agenda of the Ministry of Education in 2017. These projects share the common characteristic of promoting connectivity in classrooms, the use of computers, tablets, and digital repositories. All of them also commit to following principles of inclusion, transformation, and development (Albornoz, 2019).

According to Efraín Velastegui (2019), virtual reality has been highlighted as a significant technological advance that can support the teaching and learning process. Several countries have implemented programs to incorporate this technology at different educational levels. In the educational field, the implementation of various strategies is required to guarantee equal opportunities for all students. Educational software aims to allow students to interact with new virtual reality technology and is presented as an educational tool capable of solidly and positively transforming the teaching process. Pablo Velastegui (2019) argues that contemporary education has the responsibility not only to transmit knowledge and information, but also to provide the means, skills and abilities necessary to produce and apply them in pedagogical practice, thus generating new contexts for the development of the educational process. An essential tool to achieve these objectives is the use of Virtual Classrooms, which, by supporting the teacher, contribute to improving performance and encouraging collaborative work. This is achieved through interactivity and communication between the teacher and the student, taking advantage of the facilities offered by multimedia products for the presentation of content. Consequently, virtual classrooms, as an educational environment, have acquired

great relevance in universities. Through them, teachers and students participate in a teaching-learning process, making effective use of computers to access, communicate, share and create knowledge that promotes learning.(Velasteguí, 2019). Altamirano et al. (2021) point out that the pandemic derived from Covid-19 has had consequences of great impact in all areas of society, and education has not been exempt from this impact. In this sense, educational managers and leaders have been forced to reconsider their practices and models, moving towards virtual modalities and making use of technology through various communication platforms. The pandemic has given rise to a new form of education, affecting both families and teachers, and highlights the ability to adapt to a scenario that was expected gradually, not suddenly. According to Vera & García (2023), they argue that learning strategies are configured as planned activities adapted to the needs of students, and technology becomes an indispensable ally in the teaching-learning process. Methodological strategies are planned processes whose orientation aims to achieve significant learning by students, and must be applied in a flexible manner. Technological resources, being very important tools in education, allow strengthening the teaching-learning process. Therefore, there was a consensus among teachers in stating that it is necessary to change the traditional way of teaching. At the Emilio Isaías Abihanna educational institution, the implementation of educational technology faces significant challenges. One of them is the limited internet signal, which prevents full access to technological tools. In addition, classrooms are not properly equipped to facilitate the proper use of this new process. In addition, there is the lack of familiarity on the part of some teachers with the technological tools intended for teaching-learning. That is why another purpose of this article is to make known the benefits of starting to use this technological tool, thus voluntarily generating self-education and interest in knowing more about the use of technology and thus obtaining improvements in the different areas, especially the educational one, since we are clear that in whatever we do we must prepare ourselves and know, master and understand the subject to perform better. The objective is to create educational environments that encourage learning based on direct experience with reality, beyond the screen, promoting direct contact and activities that involve interaction with others. The importance of the learning process being an experience that combines the contributions of technology with curiosity and interest in researching and actively acquiring knowledge, avoiding depending exclusively on what is provided by the digital world, is emphasized. In this sense,The aim of this project is to find a balance between the use of technology in activities that connect with the real world, not limiting it only to the virtual realm. Another purpose is to highlight how the introduction of technology in education has had a positive impact on third-year high school students at the Emilio Isaías Abihanna school, specifically in the subject of entrepreneurship and management. Previously, classes were monotonous and boring, leading students to look for any excuse to leave the classroom, get distracted by their cell phones, and show a significant lack of motivation. However, with the implementation of technology, classes

have been transformed into engaging and fun experiences, where not only whiteboards are used, but also devices such as the infocus, computers, and cell phones. This technological integration has generated a notable change, as students now enjoy these hours of class, showing greater interest due to the facilitation of understanding, the promotion of digital and audiovisual literacy, teamwork, the development of critical thinking, and the stimulation of creativity.

Impact

Cuban expert Blanca Libera offers the following definition: the term "impact", according to the dictionary of Spanish usage, comes from the word "impactus" in late Latin and, in its third meaning, refers to the "very intense impression or effect left on someone or something by any action or event." Evaluating the "impact" of a program or project has always represented a challenge when carrying out such an analysis. In this context, Libera clarifies that "measuring impact specifically consists of trying to determine what has been achieved."(AulaFacil, 2023).

Technology

Definition: The word "technology" has its origin in the Greek term "tekne", which denotes technique or art, and "logia", which implies skill in some field. Technology arises as a response to the human desire to modify their environment and improve their quality of life. It encompasses knowledge and techniques that have evolved over time, being used systematically to satisfy various needs.(Roldan & López, 2020). From another perspective, Paul Zikopoulos indicates that "technology is the human ability to develop elements that enable us to overcome our physical limitations" (Denegri, 2021).

Education

Definition: The term "education" has its origin in the Latin "educere" meaning "to draw out" or "to extract" and "educare" which translates as "to form" or "to instruct". Education refers to the process by which the knowledge, habits, customs and values of a society are transmitted to the next generation. It also encompasses the assimilation and practice of the standards of courtesy, delicacy and civility. Therefore, in a more technical sense, education is defined as the systematic process of developing the physical, intellectual and moral faculties of human beings, with the purpose of integrating them more effectively into society or into their own group. In short, education is considered a learning aimed at life.(Significados.com, 2019). Education is defined as the process by which individuals are socialized, absorbing and acquiring knowledge. In addition, it implies cultural and behavioral awareness, where future generations incorporate the behaviors and ways of being transmitted by previous generations (Pérez & Gardey, 2023). On the other hand, Rufino Blanca argues that “Education is the rationally conducted evolution of the specific

faculties of man for his perfection and for the formation of character, preparing him for individual and social life, in order to achieve the greatest possible happiness" (Concepto.de, 2023).

Student

Definition: In Spanish, the word "student" is used to refer to a person whose main occupation is the activity of studying, of incorporating and apprehending knowledge. It is a term that has long been in our language, and comes from the word "study", which in turn is derived from the Latin "studiante", used to indicate education.(Fernández, 2023). The student is an individual, whether in childhood, youth or adulthood, who is primarily concerned with studying within the academic environment. His dedication involves a thorough understanding of various subjects, from fundamental concepts to more advanced ones, with the perspective of applying this knowledge in the future.(Rossana Adrian, 2023).

Methodology

This article examines the main features of quantitative research, which uses data collection and analysis to address predefined research questions. This method is ideal for identifying trends, making predictions, verifying relationships, and obtaining general results from populations, based on numerical measurement, counting, and often on the use of statistics to pinpoint patterns of behavior in a population. In addition, a qualitative approach is highlighted, which focuses on analyzing and collecting non-numerical information with the aim of understanding concepts, choices, and experiences, focusing on individuals who adopt the internal perspective of the phenomenon studied in a comprehensive manner. The research design adopts a non-experimental approach, based on the observation of existing phenomena, events, and situations in their natural context without intentionally modifying the observed events, followed by a detailed analysis of these events for their subsequent evaluation. This approach does not involve the construction of situations, but rather the observation of already existing situations. Field research is used, supported by information from various sources, such as interviews, questionnaires, surveys, and observations. This qualitative data collection method focuses on understanding, observing, and interacting with people in their natural environment. It also uses documentary research, based on documentary sources, such as books, articles, essays, and various documents. In this case, hemerographic and archival research is used, consulting journal articles and documents relevant to the study on the impact of educational technology. The article has an application level, in line with Mario Bunge's distinction between pure and applied research. Applied research seeks to improve and solve problems, and in this case, the impact of the application of educational technology on third-year high school students was measured using tools such as Educaplay and Blackboard Open LMS. The study is considered interactive, as it is carried out through

face-to-face techniques to collect data from people in their natural environments, providing a deep understanding and continuous review of issues from direct experience in the field. A total of 42 third-year high school science students from the Emilio Isaias Abihanna Educational Unit of the Pedro J. Montero (Boliche) Ecuador campus participated in this study. This sample represents the total population. The instruments to collect this information were observation and a survey using a questionnaire of 10 closed questions for the development of this research.

Results

Survey applied to third year students of general unified science high school, parallels "A" and "B" of the Emilio Isaias educational unit of the Pedro J. Montero parish of the Yaguachi canton. The information collected through the survey will be passed to its respective analysis to define the results. Once the data from the survey that was the instrument was obtained, the procedure was carried out, which leads to the study of each one of the questions of the survey, whose data were taken for the analysis and thus carry out the tabulation of the results in numerical form and in percentages. The program in which the process was carried out was Microsoft Excel 2007.

This survey was conducted before using educational technology

ASK: Did you regularly use technological devices to study?

Table 1

Use of devices in third year high school students

Alternative	Frequency	Percentage
1 Yes	12	29%
2 No	30	71%
TOTAL	42	100%

Note: This table shows how infrequently devices were used for studying before implementing educational technology.

Table 1 shows how it can be observed in the survey applied to students, they state that 29% of the respondents, equivalent to 12 people, confirmed that, if they used technological devices to study, it means that a very low percentage carry out their study activities through the use of technology, while 71% affirm that they do not use technology to study, it means that this very useful tool such as educational technology is not being implemented, which provides us with elementary support in this area and helps to achieve the teaching-learning objectives.

ASK: Did you consider technology to be essential for your learning?

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Table 2

Students who consider technology is essential for efficient learning

Alternative	Frequency	Percentage
1 Yes	35	83%
2 No	7	17%
TOTAL	42	100%

Note: This table shows the number of students who consider technology as an essential element for their learning.

Table 2 shows that,From the results obtained in the survey, 83% of respondents, representing 35 students, considered the use of technology essential in their learning, since in this way their activities would be more novel and interesting as it would help them to organize themselves better, while 17% of students do not consider technology essential for their learning. This means that we are faced with people who do not like change and refuse to continue with the same monotonous and boring teaching-learning.

ASK: Were you comfortable using educational software to study?

Table 3

Student comfort when using educational software

Alternative	Frequency	Percentage
1 Yes	30	71%
2 No	12	29%
TOTAL	42	100%

Note: This table shows the comfort of third-year high school students when using educational software.

Table 3 shows that,It was found that 71% of respondents felt comfortable using educational software, meaning that better benefits are obtained in terms of the quality of study within the community, this allows students to improve their knowledge, develop their skills, and improve their participation in the teaching-learning process, while 29% did not feel comfortable, meaning that digital literacy is lacking in educational technology.

ASK: Did you feel that technology improved your understanding of school subjects?

Table 4

Improving understanding of subjects by using technology

Alternative	Frequency	Percentage
1 Yes	38	90%

2 No	4	10%
TOTAL	42	100%

Note: This table shows how third-year high school students' understanding of subjects improves when using educational technology.

Table 4 shows that,Of the survey respondents, 90% consider that their understanding of the subjects improved with the use of technology, meaning that this expanded their knowledge and helped in the development of their tasks, while 10% say that technology did not improve their understanding, meaning that there is a lack of knowledge of the benefits of using technology in education.

ASK: Did you think technology helped you study more efficiently?

Table 5

Thinking about whether technology helps you study more efficiently

Alternative	Frequency	Percentage
1 Yes	32	76%
2 No	10	24%
TOTAL	42	100%

Note: This table shows that third-year high school students think that technology helps them study more efficiently.

Table 5 shows that,76% of students feel that technology does help them study more efficiently, which means that its use is favorable as it causes a positive stimulus to develop educational activities, while 24% of those surveyed feel that technology does not help them study more efficiently, which means that its use is not clear as there is a lack of information about its multiple benefits.

ASK: Did you frequently collaborate with your peers using technological tools for school projects?

Table 6

Collaboration between peers through the use of technology

Alternative	Frequency	Percentage
1 Yes	38	90%
2 No	4	10%
TOTAL	42	100%

Note: This table shows that third-year high school students use technology to collaborate with each other on school projects.

Table 6 shows that,d100% of the surveys carried out showed a low rate of 10% who did not frequently work in groups using technological tools for school projects, while 90% of the students stated that they did collaborate in group work using technology. This means

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that it is very convenient to implement the use of technology since it encourages teamwork.

Survey after applying technology in education

ASK: Has your use of technological devices increased since the implementation of educational technology?

Table 7

Using devices since the implementation of educational technology

Alternative	Frequency	Percentage
1 Yes	35	83%
2 No	7	17%
TOTAL	42	100%

Note: This table shows that third-year high school students have increased their use of devices after implementing technology.

Table 7 shows that,andIn the survey conducted, 83% of respondents, representing 35 students, stated that they have increased the use of their devices after the implementation of technology. This means that students have increased their interest in using technology in a different way, since they know a lot about social networks but were unaware that in classes they could also interact through certain applications that facilitate teaching-learning work. We have 17% of respondents who still do not use technological devices more frequently.

QUESTION: Do you think technology has become more important for your learning since its implementation?

Table 8

Importance of technology since its implementation

Alternative	Frequency	Percentage
1 Yes	38	90%
2 No	4	10%
TOTAL	42	100%

Note: This table shows that technology has become more important since its implementation in third-year high school students.

Table 8 shows that,d100% of the surveys carried out, 90% say that technology has become more important since its implementation, meaning that there is a good reception by students to this change in teaching-learning, while 10% of students claim that technology has not become more important since its implementation.

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ASK: Do you feel more familiar with educational software after continuous use?

Table 9

Familiarity with educational software after continuous use

Alternative	Frequency	Percentage
1 Yes	35	83%
2 No	7	17%
TOTAL	42	100%

Note: This table shows the degree of familiarity of educational software after its continuous use by third-year high school students.

Table 9 showsThe results obtained indicate that 83% of respondents feel more familiar with educational software after continuous use, meaning that students' knowledge has been developed in this very important area that contributes a lot to achieving the desired objectives in the teaching-learning process. On the other hand, 17% of students say they do not feel familiar with educational software after continuous use.

ASK: Have you noticed improvements in your understanding of subjects thanks to educational technology?

Table 10

Understanding Subjects After Implementing Educational Technology

Alternative	Frequency	Percentage
1 Yes	40	95%
2 No	2	5%
TOTAL	42	100%

Note: This table shows that third-year high school students have had an improvement in their understanding of subjects due to the implementation of educational technology.

Table 10 shows that,From the tabulation of the results, 95% of respondents say that they have improved their understanding of the subjects thanks to educational technology, meaning that the tools designed to improve teaching-learning have given positive results, the remaining 5% say that they have not improved their understanding of the subjects thanks to educational technology.

ASK: Do you feel that your way of studying has become more efficient with educational technology?

Table 11

More efficient study with educational technology

Alternative	Frequency	Percentage
1 Yes	36	86%
2 No	6	14%
TOTAL	42	100%

Note: This table shows that with educational technology, studying has become efficient for third-year high school students.

Table 11 shows that,According to the perception of 86% of students, their way of studying has become more efficient with educational technology, meaning that new cognitive and creative skills are being developed in them, while 14% say that their way of studying has not become more efficient with educational technology.

ASK: Have you experienced a positive change in collaboration with your peers due to educational technology?

Table 12

Collaboration with peers as a result of using technology

Alternative	Frequency	Percentage
1 Yes	40	95%
2 No	2	5%
TOTAL	42	100%

Note: This table shows the positive change in peer collaboration through the use of educational technology in third-grade high school students.

Table 12 shows that, out of 100% of the surveys carried out, a low rate of 5% was obtained that has not experienced a positive change in collaboration with their peers due to educational technology, while 95% of the students affirm that, if they have experienced a positive change in collaboration with their peers due to educational technology, it means that the altruistic spirit of the students is developing, who have managed to share daily coexistence situations and the development of goals proposed by the institution.

Discussion

This article explores the impact of educational technology on students through the analysis of data collected through a survey. The results reveal that the implementation of technology has cultivated in students a greater interest in classes, encouraging collaboration in group work, the acquisition of new knowledge in the field of educational technology and the satisfactory completion of their activities. According to Luján & Salas (2009), in their research in the educational field, educational technology is defined as an applied art capable of favoring the mobilization of information in the school community,

promoting the emergence and development of individual and collective potentials, as well as critical, constructive and responsible participation within a socio-cultural perspective.(Luján & Salas, 2009). According to Ballester & Bailey's research (1995), Fernández and Parra conceive of educational technology as an innovative pedagogical concept aimed at transforming man and his social reality at any level of education. In accordance with this same research, Bill Gates (1995, cited in Ballester & Bailey, 1995), who is a representative figure of the technological revolution, proposes a stimulating educational perspective in his work "Road to the Future." In it, he highlights the information highway as a resource that provides unlimited access to information at any time and place. Gates predicts that education will become highly individualized, with the use of computers connected to the highway for teachers to monitor, evaluate and guide student performance. Homework will include hypertext references to electronic reference materials (Ballester & Bailey, 1995). According to Bautista & Alva (2010), in their research they state that Soledad Jiménez Benedit, associate professor of the Department of Didactics and School Organization of the Complutense University of Madrid, interprets educational technology as the study of the media and its use in teaching processes. From a practical perspective, it allows students to reflect on the didactic interaction in the classroom, and from a critical approach, it enables the modification of situations susceptible to improvement (Bautista & Alva, 2010). Our findings are similar to those presented by the different authors mentioned above, since educational technology has achieved collaboration and teamwork, as well as being something new that has transformed the way of thinking of the student, who has learned to individualize and acquire information anywhere where they have access to the Internet. A better interaction can also be observed within the classroom between teacher and student and among themselves.

Conclusion

- The use of educational technology at the Emilio Isaias Abihanna institution has been beneficial for the teaching-learning process. This tool, guided by teachers, has promoted the comprehensive development of the student in intellectual, moral and social aspects.
- The increased use of devices has improved familiarity with educational software, facilitating understanding of the subject matter and promoting collaboration between students and teachers in teamwork.
- However, challenges arise due to poor internet signal, hindering access to technological tools in certain areas of the school. In addition, the lack of equipment in the classrooms requires moving to the laboratory, where the insufficient number of machines makes individual work with students difficult.

- Although some teachers are not completely familiar with educational technology, its application in the subject of entrepreneurship and management has been the focus of successful research, supported by other authors with similar results.
- Therefore, this article seeks to highlight the importance of integrating educational technology into all subjects and levels of education. The aim is to improve the teaching-learning process and achieve educational goals by promoting a balance between technological use and real-world activities. This stimulates interest, facilitates understanding, promotes digital and audiovisual literacy, teamwork, critical thinking and creativity in students.

Conflict of interest

The authors declare that there is no conflict of interest in relation to the submitted article.

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