

From Traditional Classrooms to Digital Environments: Assessing the Impact of Ict on Economics Students' Learning Experiences

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Abstract

This study analyzes the impact of Information and Communication Technologies (ICT) on the teaching-learning process from the perspective of students in the Economics degree program at a university in western Mexico. A qualitative case study approach was employed, using semi-structured interviews and classroom observations to understand how ICT-supported teaching strategies influence knowledge acquisition and student motivation. The findings show that integrating digital tools in teaching enhances participation, facilitates content comprehension, and promotes more autonomous learning. However, challenges remain in teacher training and technological infrastructure. The study concludes that the effective implementation of ICT in the classroom requires innovative pedagogical strategies and strengthened digital competencies for both teachers and students to maximize its impact on higher education.

Keywords: ICT, higher education, meaningful learning, teaching strategies, university students.

1. INTRODUCTION

The incorporation of Information and Communication Technologies (ICT) and the first technological tools in the educational field began approximately in the second half of the twentieth century. Technologies have become a fundamental pillar in higher education, transforming the way students access knowledge and collaborate in their learning. ICT offer significant opportunities such as flexibility in accessing information, the personalization of educational processes, and the reduction of gaps in access to education. However, their implementation faces major challenges, including resistance to change and a lack of digital competencies [1].

We are immersed in a society characterized by knowledge and information, which requires transformations in teaching methods to strengthen meaningful learning. In the context of higher education, the integration of ICT has significantly transformed the teaching-learning process. According to [2], these technologies

enable more personalized, interactive, and inclusive education, facilitating autonomous and collaborative learning among university students. Nevertheless, their effective implementation requires overcoming challenges such as training, which is one of the key aspects to ensure a real impact on academic performance and the construction of meaningful learning

On the other hand, [3] highlights the importance of digital innovation in expanding access to educational opportunities, promoting inclusion, and improving both the quality and relevance of learning. It also emphasizes the role of ICT in creating lifelong learning pathways, strengthening educational management systems, and improving teaching and learning processes. The advancement of technology has driven the transformation of higher education, enabling the implementation of innovative tools. Technologies have improved the accessibility and flexibility of learning, allowing the personalization of content and its adaptation to the needs of each student. The integration of emerging technologies has demonstrated improvements in learning quality and has strengthened students' professional competencies. In this context, it is essential to investigate optimal strategies to maximize their impact on university teaching [4]. Educational Technology (ET) has transformed teaching by incorporating technological tools that facilitate student learning. Its implementation allows students to access a variety of digital resources such as educational platforms, specialized software, and mobile devices, which enhance comprehension and classroom participation. Additionally, the use of these technologies fosters the development of essential digital competencies for today's labor market, promoting more autonomous and meaningful learning. The integration of technology in education not only modernizes teaching methods but also motivates students by making learning more interactive and dynamic. As noted by [6], reducing digital divides became crucial to ensuring access to quality education, leading to the implementation of technological training courses to acquire the competencies needed in the teaching–learning process.

2. Research Problem

The use of technology in higher education has gained great relevance in the development of complex thinking among students. Despite advances in the implementation of strategies, it is still necessary to strengthen teacher training and technological infrastructure to ensure their effectiveness. In this regard, ICT not only modernize educational methods but also prepare students to face twenty-first-century challenges through the development of advanced cognitive skills [7]. Likewise, Information and Communication Technologies (ICT) have transformed teaching and learning in higher education at a global level. Their proper integration in this field is key to improving educational quality and efficiency, in addition to preparing students for an increasingly digitalized world. In Mexico, the use of ICT in higher education is particularly important to reduce the digital divide and ensure equitable access to quality education. However, challenges persist related to infrastructure, teacher training, and student access to the technological tools needed [8].

The present study assessed the current use of ICT in higher education at a global scale and then focused specifically on the case of Mexico. Through this analysis, the intention is to identify international best practices and areas in which the Mexican context can improve, promoting a more equitable and effective adoption of ICT within the higher education system

In Mexico, the integration of Information and Communication Technologies (ICT) in higher education has shown significant progress, yet still faces challenges in their effective adoption by students. ICT represent a key opportunity to improve teaching through innovative methodologies such as online learning and the use of interactive software. For students to fully benefit from digital transformation, it is essential to

strengthen training. This will allow students to develop digital skills that are essential for their professional future in an increasingly technological world [9].

For their part, [10] point out that since the emergence of new technologies, the need arose to understand them, use them, and harness their potential, and today it is difficult to remain on the sidelines of technology, both personally and educationally. The COVID-19 pandemic made evident the urgent need to adapt to these tools, turning what was previously seen as optional into something indispensable for teaching, such as online classes and the use of educational platforms.

2.1 The Problem

The Economics undergraduate program at a University in western Mexico, despite belonging to the Academic Unit of Economics and Information Technology, still does not make significant use of Information and Communication Technologies (ICT) or educational platforms to strengthen student learning. This situation has led to a dependence on printed materials provided by some professors, limiting access to digital resources that could enrich students' academic development. Additionally, some classes are still conducted using a traditional approach based on lecture-style sessions, which restricts active student participation and reduces opportunities for autonomous learning

The use of ICT allows students to access interactive resources such as simulations, virtual labs, and educational software, which improve the understanding of complex concepts. Likewise, these technologies foster more autonomous and participatory learning, contributing to better academic performance. However, their effectiveness largely depends on adequate training for their proper implementation. Despite the challenges, the integration of ICT in education represents an opportunity to modernize teaching and make it more engaging and effective for students [11].

ICT have acquired an essential role in higher education, facilitating access to information and promoting innovative teaching methodologies. In the student context, the integration of these tools enables a more interactive and personalized learning experience that adapts to the individual needs of each student. Despite progress, challenges persist, such as the digital divide and the need for adequate training to ensure proper use of these technologies in the classroom. In an increasingly digitalized world, strengthening technological skills in higher education is key to improving learning quality and preparing students for the demands of the labor market [12].

2.2 Research Questions

The research question is formulated based on the identified problem and guides the study, considering previous and recent knowledge that allows for a deeper understanding of students' experiences with the use of technological tools in the teaching–learning process.

How does the use of ICT-supported teaching strategies influence meaningful learning in the Economics undergraduate program from the students' perspective, and to what extent can training in the use of these technologies reinforce academic outcomes?

2.3 Research Objectives

The purpose of this research was to analyze the relationship between the incorporation of educational technologies and the development of meaningful learning among students of the Economics undergraduate program, based on the implementation of teaching strategies supported by ICT.

2.4 General Objectives

To examine the impact of ICT-supported teaching strategies on the teaching–learning process of the Economics undergraduate program, according to students' perspectives.

3. State of the Art

This section presents recent research related to the present study and considered relevant for the development of the topic. Regarding the use of ICT-based methodologies, specifically gamification as a motivating element in the teaching–learning process within a Japanese university context, [13] demonstrated that the use of a gamified platform—enabled by ICT integration—enhanced students’ digital competence and improved their motivation. In the study, students reported that using ICT had a positive effect on their motivation, that the tasks allowed them to watch videos at home and work with them at their own pace, and that thanks to the platform, their attitude improved and they developed greater autonomy in both formal and informal learning.

The study conducted by [14] in Lima, Peru, aimed to determine the relationship between the didactic use of ICT and meaningful learning. It concluded that there is a significant positive relationship between the didactic use of ICT and meaningful learning, and furthermore, it states that meaningful learning theory constantly promotes active student participation. To achieve this, the author notes the necessity of using technological tools that function as instruments for expanding knowledge, which will then be integrated with students’ prior knowledge to attain meaningful learning.

Another study, conducted in Saudi Arabia, analyzed how ICT have had a significant impact on higher education by promoting new forms of digital learning among students. Moreover, proficiency in digital skills such as web navigation and the use of learning platforms influences students’ willingness to integrate these technologies into their academic formation. Nonetheless, the effective implementation of ICT depends on training and equitable access to technological resources. Despite these challenges, ICT have demonstrated their ability to improve student autonomy and foster greater interaction with educational content. To maximize their impact, it is essential to develop strategies that effectively integrate technology into teaching programs [15].

The use of technology in higher education plays a key role in students’ professional preparation, particularly in decision-making related to their career paths. A study conducted in South Korea indicates that academic self-efficacy significantly influences career preparation behavior, suggesting that students with greater confidence in their academic abilities engage in better career planning. Technology can be a key tool to improve vocational guidance by facilitating access to information about the labor market and providing opportunities to develop essential skills for their future [16].

ICT have generated a significant impact on higher education, transforming the way students access knowledge and develop essential digital skills. Their implementation in the classroom has facilitated autonomous learning and personalized content, enabling students to utilize interactive platforms and collaborative tools. Additionally, the integration of active methodologies such as the flipped classroom or gamification promotes more dynamic and meaningful learning. In this context, ICT represent an opportunity to improve education and better prepare students for the challenges of the digital world [17]. ICT have transformed the learning cycle in higher education by providing students with access to a wide range of digital resources and promoting more interactive teaching methodologies. These tools facilitate autonomous learning and real-time access to information, which enhances academic performance and the development of critical skills. However, their implementation faces challenges such as training and technological infrastructure. ICT represent a key opportunity to modernize education and prepare students for a digitalized world [18].

The use of technology in higher education has evolved with the integration of hybrid teaching models that combine online and in-person learning. A study conducted at a Chinese university evaluated the

effectiveness of this approach in developing students' critical and creative thinking skills. It identified that strategies such as project-based learning and the use of concept maps strengthen analytical and problem-solving skills. However, the implementation of these models depends on technological infrastructure and training. The combination of digital methods with traditional teaching can enhance the educational experience and better prepare students for twenty-first-century challenges [19].

A study conducted at a university in Indonesia analyzed the factors influencing students' readiness to use e-learning. The results indicate that students' perceived usefulness and ease of use of digital platforms significantly impact their willingness to adopt them. Furthermore, motivation and self-efficacy play a crucial role in the adoption of these tools. However, challenges such as the need to improve training were identified. Effective implementation of online learning can enhance student autonomy and improve academic performance by providing them with interactive and accessible digital tools [20].

4. Methodological Framework

This chapter describes the methodology used to achieve the objective of the research, analyzing and interpreting the social reality of the phenomenon studied. It also highlights the importance of the qualitative approach and presents the context and population under study.

4.1 Research Design

This research adopts a qualitative approach with a longitudinal design, as it allows for an understanding of the complex and changing social reality. This approach seeks to interpret human experience from a naturalistic perspective, analyzing phenomena in their context and relying on data provided by the study participants. Qualitative research analyzes social reality using various types of data such as texts, images, and discourse. It focuses on describing and interpreting phenomena within their context, emphasizing the importance of language in the construction of knowledge [21].

The qualitative approach analyzes individuals and groups in their natural context, employing methods such as observation and open interviews. It allows for close interaction between the researcher and the participants, using a flexible methodology that adapts throughout the study. Additionally, its methodology is adaptable and adjusts throughout the research process. The qualitative researcher interacts with individuals in their social context to interpret their reality and must possess social skills and the ability to adapt. Data collection is defined during the study and uses techniques such as observation, interviews, and life histories [21].

4.2 Justification of the Approach and Type of Study

Choosing the appropriate approach is essential to defining the direction of a research study. According to [22], the qualitative approach is suitable when the study seeks to explore, describe, and understand a problem, focuses on the experiences of participants, and analyzes a reduced number of cases. Qualitative research follows an inductive process, moving from the particular to the general. It does not employ statistical analysis; instead, it focuses on participants' experiences [23]. Moreover, it interprets events and actions without seeking replicability, as it depends on the specific context and situation.

4.2 Qualitative Research Process

Qualitative research seeks reliable sources that accurately describe observations and experiences related to the social world. Researchers interact with real subjects who provide valuable information through interviews, case studies, and document analysis. These techniques allow for recording and analyzing the meanings that participants attribute to their experiences, based on written and verbal expressions [24].

4.3 Population and Sample

In qualitative studies, sample size is not relevant in probabilistic terms, since the goal is not to generalize the results but to deepen the understanding of the phenomenon under study [22]. The selection of cases depends on the capacity for data collection, the level of understanding required, and the accessibility of the units of analysis.

For the case study, 20 students from the Economics undergraduate program at a University in western Mexico were selected, enrolled between August 2023 and June 2024. Although total enrollment was 103 students, a diverse sample was chosen to obtain different perspectives about the teaching–learning process. This type of sampling enables the identification of differences, similarities, and patterns in the phenomenon under study [22]. During the research, discrete observations were conducted in courses to avoid altering participant behavior, complemented by interviews with the 20 selected students.

4.4 Research Procedure

According to [22], in the qualitative approach, data collection seeks to transform information into knowledge based on participants' expressions. It is conducted in natural environments and allows for an understanding of the reasons and motivations behind human behavior. The researcher, as the primary data collection instrument, must be flexible, reflective, and receptive to the information obtained.

The data collection process was carried out in different stages over two academic periods (August–December 2023 and January–June 2024), with the aim of thoroughly analyzing the teaching–learning process in the Economics undergraduate program at a University in western Mexico.

First, at the beginning of the August–December 2023 period, an initial interview was conducted with the twenty participants in a confidential and comfortable environment within the academic unit's administrative office. This first interaction allowed for the collection of fundamental information about their classroom experiences and perceptions of the educational process.

Subsequently, classroom observations were conducted to document student and teacher activities during class sessions. A structured guide was used to record relevant events, observing eleven students from Group 1 Monday through Thursday and nine students from Group 2 Monday through Wednesday over three weeks in the August–December 2023 period. This strategy enabled a detailed understanding of the teaching and learning dynamics in the participants' natural environment.

To complement the information collected in the classroom, observations of extracurricular activities were conducted, focusing on students' autonomous study and the resources they used outside the classroom. These observations were carried out with each of the twenty participants over three weeks in the January–June 2024 period.

Additionally, to deepen the understanding of the impact of educational technology on the learning process, an observation guide centered on students' behavior when interacting with technological tools was implemented. This procedure was applied individually to the twenty participants over three weeks toward the end of the January–June 2024 period.

Finally, at the conclusion of the second academic period, a final interview was conducted with the same twenty students, replicating the conditions of the initial interview to ensure a consistent and comfortable environment. This last phase allowed for comparing the previously collected data and gaining deeper insight into the evolution of participants' perceptions and experiences throughout the study.

The methodological design used in this study enabled a detailed analysis of educational dynamics, ensuring the validity and reliability of the obtained data. Through a combination of structured interviews and observations, an integral approach was achieved that allows for a deep understanding of the

phenomenon under investigation.

4.5 Data Organization and Analysis

The process of organizing and analyzing data in this research was designed to ensure the validity and reliability of the results, following the methodological recommendations by [22]. Information was collected through various strategies that allowed for a detailed analysis of the teaching–learning process, with a special focus on the use of Information and Communication Technologies (ICT) in higher education.

Structured interviews were conducted with students to obtain relevant information about their academic experiences and their interaction with the teaching strategies used by instructors. This stage allowed for deeper analysis of the impact of ICT on the learning process, identifying areas of opportunity and improvements in teaching.

Observation guides were also applied to both teachers and students to examine classroom and out-of-class dynamics. Activities carried out during class sessions were recorded, focusing on how instructors incorporated ICT into their pedagogical strategies and how students responded. Extracurricular practices were also analyzed to evaluate the use of technological tools in academic tasks.

A key aspect of data collection was the use of observation instruments that allowed for documenting participants’ behavior when using digital learning resources. This facilitated an objective assessment of students’ interest, participation, and engagement in a technology-mediated educational environment.

A final interview was conducted using audio recorders and a computer to accurately capture participants’ responses. This stage explored perceptions of ICT effectiveness in learning, their influence on communication and teamwork, and their impact on the acquisition of digital competencies.

In total, 140 actions were carried out, including interviews and observations (see Table 1), providing a solid data base. The combination of these methodological strategies enabled a detailed interpretation of the phenomenon, offering meaningful evidence of ICT’s importance in education and their potential to improve teaching and learning in the university context.

Tabla 1: Número de entrevistas aplicadas

	Participantes	Total de guías o entrevistas
Entrevista inicial primer periodo	20	20
Guías de observación a estudiantes	20	60
Guías de observación extra clase	20	20
Guías de observación del uso de TIC	20	20
Entrevista final	20	20
Total	140	

5. Results

The findings of this research confirm the positive impact of Information and Communication Technologies (ICT) on the teaching–learning process from the students’ perspective. It was identified that

the use of technological tools facilitates knowledge acquisition, increases motivation, and improves participation in academic activities. Students naturally use ICT in their daily lives, which allows them to access information quickly and develop greater creativity in solving tasks and projects.

These results are consistent with previous research emphasizing the need to incorporate ICT as support in teaching to optimize learning. As noted by [25] and [26], educational technologies have transformed the academic environment, facilitating new teaching processes and adapting to societal demands. However, it is observed that not all instructors possess the necessary competencies to effectively use these tools, although they recognize their relevance in the educational context.

To answer the research question — *How does the use of ICT-supported teaching strategies influence meaningful learning in the Economics undergraduate program from the students' perspective, and to what extent can training in these technologies strengthen academic outcomes?* — data obtained through interviews and observation guides were analyzed and systematically organized to identify patterns and generate significant categories. The study found that the application of ICT-supported teaching strategies contributes to the development of meaningful learning in the Economics undergraduate program, reinforcing academic results. Evidence suggests that greater training in the use of these technologies would further enhance the benefits observed, consolidating ICT as a key resource for twenty-first-century education.

5.1 Analysis of the Results

The analysis of the data obtained in this research highlights the importance of using Information and Communication Technologies (ICT) in the teaching–learning process from the students' perspective. It was identified that when instructors integrate technological tools into their teaching strategies, students demonstrate greater motivation, participation, and commitment to learning. However, challenges remain related to teacher training and pedagogical adaptation in order to maximize the benefits of ICT in the classroom.

The results of the initial interviews revealed that although students possess skills for managing technologies, many instructors still maintain a traditional view regarding their implementation. This limitation affects student motivation and reduces opportunities for meaningful learning. Nonetheless, students indicated that when ICT are incorporated into teaching, they promote communication, enhance creativity, and strengthen collaborative work.

Based on the analysis of the observation guides, it was evident that the use of technological resources in the classroom encourages research, interaction, and critical thinking among students. The integration of digital platforms and interactive tools improves attention, fosters talent, and contributes to a dynamic learning environment. It was observed that students respond more actively when instructors employ teaching strategies supported by technology.

The final interviews confirmed students' demand for greater integration of ICT in their classes. They expressed that technologies are part of their daily lives and consider their use essential in the academic context. Furthermore, they emphasized the need for instructors to receive training to improve their digital competence and optimize the use of technological tools in teaching.

Finally, the results showed that the implementation of virtual learning environments and the use of multimedia resources—such as videos, images, and audio—contribute to content comprehension and make classes more dynamic. The modernization of education through ICT enables more flexible access to knowledge and supports more effective and meaningful learning for students.

5.2 Discussion of the Results

The results of this research confirm that the integration of Information and Communication Technologies (ICT) in the teaching–learning process has a positive impact on students. It was observed that the use of teaching strategies supported by technology improves content delivery, encourages participation, and strengthens meaningful learning. However, challenges remain in teacher training, which limits the effective implementation of these tools in the classroom.

The analysis of the initial interviews revealed that although students are familiar with ICT, their use in the academic environment largely depends on the willingness of instructors to integrate them. It was identified that instructors who adopt technology-supported teaching strategies generate greater interest and motivation among students, improving communication and collaborative work.

Through the observation guides, it was found that the use of ICT stimulates creativity, research, and interaction in the classroom. However, it was also evident that some instructors still prefer traditional methods, which may demotivate students and limit their learning. Students expressed that technology facilitates access to relevant information, promotes more dynamic learning, and strengthens their preparation for the professional environment.

In the final interview, the need to strengthen teacher training in ICT was reaffirmed to maximize their impact on teaching. Students emphasized that digital tools allow them to learn at their own pace and collaborate more effectively on academic activities. They also highlighted the importance of designing innovative teaching strategies that leverage the potential of technology to optimize learning outcomes.

The integration of ICT in teaching not only improves students' academic performance but also transforms the educational dynamic. Continuous teacher training and the integration of digital tools into pedagogical practice are essential to consolidate meaningful learning aligned with the demands of today's world.

6. Conclusions

The findings of this research show that the integration of Information and Communication Technologies (ICT) in the teaching–learning process has a positive impact on students' academic development. It was identified that the use of technological tools facilitates knowledge acquisition, enhances active participation, and strengthens motivation in the classroom. Likewise, ICT promote autonomous learning, critical thinking, and creativity—fundamental skills in higher education.

However, despite the benefits observed, significant challenges were identified, such as the need for training in the use of ICT-supported teaching strategies. The lack of preparation and the traditional approach of some instructors limit the effective use of these tools, affecting students' learning experience. It is essential for educational institutions to promote continuous professional development programs aimed at fostering the effective use of technologies in the classroom.

To maximize the potential of ICT in education, it is crucial that students not only have access to these technologies but also develop the competencies and technological skills necessary to integrate them effectively into their learning and future professional performance.

The incorporation of ICT-supported teaching strategies represents a valuable opportunity to transform higher education. When implemented effectively, they can significantly improve the quality of meaningful learning, adapting it to the needs of students in an increasingly digitalized world. To achieve this, constant training, strengthened technological integration, and the promotion of an educational innovation culture are essential to fully harness the benefits of ICT in the teaching–learning process.

References

1. Alenezi, M., Wardat, S., & Akour, M. (2023). The need of integrating digital education in higher education: Challenges and opportunities. *Sustainability*, 15(4782). <https://doi.org/10.3390/su15064782>
2. Sosa-Calero, S. M., Mendoza-Loor, J. J., Araujo-Sandoval, O. I., & Choez-Calderón, C. J. (2023). Educación y TIC's: herramientas y estrategias para un aprendizaje efectivo. *Código Científico. Revista de Investigación*, 4(E2), 1380–1404. <https://doi.org/10.55813/gaea/ccri/v4/nE2/224>
3. UNESCO. (2024). Qué necesita saber acerca del aprendizaje digital y la transformación de la educación. [página web]. <https://www.unesco.org/es/digital-education/need-know?hub=84636>
4. Barbashova, I., Hetmanenko, L., Kukhniuk, O., Vasylenko, I. y Snisar, O. (2024). Tecnologías educativas innovadoras en entornos universitarios. *Archivos de ciencias*, <https://doi.org/10.62227/as/74420>.
5. Pérez Pinzón, L. R. (2022). Tecnología Educativa en América Latina. *Edutec. Revista Electrónica de Tecnología Educativa*, (81), 122-136. <https://doi.org/10.21556/edutec.2022.81.2539>
6. Garzón, A. A., Segovia, C. J., y Mora, C. R. (2022). Estudio de la Brecha Digital y el Proceso de Enseñanza- Aprendizaje en Ecuador - Caso De Estudio: Universidad Técnica De Machala, *Revista Angolana de Ciencias*, 4(2),1–22. <https://www.redalyc.org/journal/7041/704173402006/html/>
7. Patiño, A., Ramírez-Montoya, M. S., & Ibarra-Vazquez, G. (2023). Trends and research outcomes of technology-based interventions for complex thinking development in higher education: A review of scientific publications. *Contemporary Educational Technology*, 15(4), 447. <https://doi.org/10.30935/cedtech/13416>
8. Zepeda Martínez, G. (2023). El Uso del Modelo de Aula Invertida en la Educación Superior: Revisión Sistemática de sus Ventajas y Retos. (Tesis Doctoral Inédita). Nova Southeastern University. https://nsuworks.nova.edu/cgi/viewcontent.cgi?article=1548&context=fse_etd
9. Ponce López, J. L. (2021). Estado actual de las tecnologías de la información y comunicación en las Instituciones de Educación Superior en México: Estudio 2021. Asociación Nacional de Universidades e Instituciones de Educación Superior (ANUIES).
10. Navarro, P.R. (2023). Disposición y capacidad docente como factor clave en el aprovechamiento y uso de las tecnologías. *Revista Dilemas Contemporáneos: Educación, Política y Valores*. 2 (6): 1-27. <https://dilemascontemporaneoseducacionpoliticayvalores.com/index.php/dilemas/article/view/3472/3431>
11. Ordoñez Calva, A. F. (2024). Las TIC como herramienta para mejorar la enseñanza y el aprendizaje en el aula. *LATAM Revista Latinoamericana de Ciencias Sociales y Humanidades*, 5(2), 673–684. <https://doi.org/10.56712/latam.v5i2.1908>
12. Santiago-Trujillo, Y., & Garvich-Ormeño, R. (2024). Competencias Digitales e Integración de las TIC en el Proceso de Enseñanza-Aprendizaje. *Revista Tecnológica-Educativa Docentes 2.0*, 17(1), 50-65. <https://doi.org/10.37843/rted.v17i1.405>
13. García Álvarez, A., (2021). Proyecto ludificado para la enseñanza ELE en el aula universitaria japonesa. Marco ELE. *Revista de Didáctica Español Lengua Extranjera*, (33). <https://www.redalyc.org/articulo.oa?id=92167147002>
14. Regalado Veliz, C. S. (2021). Uso didáctico de las TIC y el aprendizaje significativo en el ciclo VII de la I.E.P Los Álamos - Ñaña 2021. Tesis de Maestría. https://repositorio.ucv.edu.pe/bitstream/handle/20.500.12692/68262/Regalado_VCS-

SD.pdf?sequence=1&isAllowed=y

15. Sayaf, A. M., Alamri, M. M., Alqahtani, M. A., & Alrahmi, W. M. (2022). Factors Influencing University Students' Adoption of Digital Learning Technology in Teaching and Learning. *Sustainability*, 14(493). <https://doi.org/10.3390/su14010493>
16. Kim, H., & Ra, Y.-A. (2022). Effect of Academic Self-Efficacy and Career Decision Level on Career Preparation Behavior of South Korean College Students. *International Journal of Environmental Research and Public Health*, 19(13705), 1-16. <https://doi.org/10.3390/ijerph192013705>
17. Alastor, E., Sánchez-Vega, E., Martínez-García, I., & Rubio Gragera, M. (2023). TIC en educación en la era digital: propuestas de investigación e intervención. Universidad de Málaga. <https://doi.org/10.24310/mumaedmumaed.65>
18. Jaramillo-Hurtado, J. L., & Escudero-Benavides, P. M. (2024). El impacto de las TIC en el ciclo de aprendizaje. *Pol. Con. (Edición núm. 85)*, 9(1), 93-116. <https://doi.org/10.23857/pc.v9i1.6370>
19. Luo, Y. (2024). Exploration and practice of the integration and development of educational technology and teaching in colleges and universities in the context of educational informatization. *Applied Mathematics and Nonlinear Sciences*, 9(1), 1-19. <https://doi.org/10.2478/amns-2024-0424>
20. Al Arif, T. Z. Z., Kurniawan, D., Handayani, R., Hidayati, & Armiwati. (2024). EFL University Students' Acceptance and Readiness for e-Learning: A Structural Equation Modeling Approach. *The Electronic Journal of e-Learning*, 22(1), 01-16. <https://www.ejel.org>
21. Martínez, J. (2011) Métodos de investigación cualitativa. *Research Journal Silogismo*, 1(8), <http://www.cide.edu.co/ojs/index.php/silogismo/article/view/64/53>
22. Hernández Sampieri, R., Fernández Collado, C. & Baptista Lucio, P. (2014). *Metodología de la Investigación*. México, D.F.: Mc Graw Hill Education.
23. Sherman, R. & Webb, R. (Ed.). 1988. *Qualitative Research in Education: Focus and Methods*. Great Britain: Taylor & Francis (Printers).
24. Monje, A.C.A. (2011). *Metodología de la Investigación Cuantitativa y Cualitativa*. Libro Electrónico. Colombia: Editorial de la universidad Surcolombiana. <https://www.uv.mx/rmipe/files/2017/02/Guia-didactica-metodologia-de-la-investigacion.pdf>
25. Crespo, J. M. (2021). Virtualización de las asignaturas de estudios generales en la formación universitaria. Propuesta de concepción teórico-metodológica para su aplicación. *Revista Tecnológica – ESPOL*, 33(2), 122–33. <https://doi.org/10.37815/rte.v33n2.837>.
26. Moreira, H., & Bravo, R. (2022). Estrategias didácticas creativas que inciden en el aprendizaje significativo en ambientes virtuales de lengua y literatura. *Revista Innova Educación* 4(4), 167–77. <https://doi.org/10.35622/j.rie.2022.04.012>.