

E-Learning And Oral And Written Communication. University Context

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Summary

A documentary review was carried out on the production and publication of research papers related to the study of the variables E-learning, Communication and Higher Education. The purpose of the bibliometric analysis proposed in this document was to know the main characteristics of the volume of publications registered in the Scopus database during the period 2017-2022, achieving the identification of 71 publications. The information provided by this platform was organized through graphs and figures categorizing the information by Year of Publication, Country of Origin, Area of Knowledge and Type of Publication. Once these characteristics have been described, the position of different authors towards the proposed theme is referenced through a qualitative analysis. Among the main findings made through this research, it is found that Mexico, with 24 publications, was the Latin American country with the highest scientific production registered in the name of authors affiliated with institutions in that country. The Area of Knowledge that made the greatest contribution to the construction of bibliographic material referring to the study of E-learning, Communication and Higher Education, was Computer Science with 49 published documents, and the Type of Publication most used during the period indicated above were Conference Articles with 59% of the total scientific production.

Keywords: e-learning, oral communication, written communication, higher education.

1. Introduction

In today's university environment, online learning, also known as e-learning, has grown significantly. This educational method uses digital technology and online platforms to facilitate distance learning and education. In addition to the various academic fields that benefit from online learning, oral and written communication stand out among students' core skills.

Online learning has changed the way college students access educational resources and participate in learning activities. Instead of physically participating in a classroom, they can access educational content online, interact with teachers and peers through digital platforms, and complete assignments and assessments in a virtual environment. This method offers flexibility in terms of schedules and locations, allowing students to tailor their learning to their individual needs. Oral and written communication plays a central role in the university context, whether learning is online or face-to-face. However, in online learning, these skills are even more important. Through online communication, students must develop their ability to express themselves clearly and understand the messages of others. This means mastering written communication by writing emails, participating in discussion forums, and preparing written papers. Additionally, while verbal communication may seem difficult in a virtual environment, college students should also develop the skills to express themselves effectively using video conferencing tools and online sessions. The ability to express thoughts clearly and convincingly and actively listen to others is a prerequisite for academic success.

Online learning offers college students the opportunity to improve these skills because it promotes written communication through online communication and encourages oral communication through video conferencing tools. However, it also brings challenges such as the lack of perfect non-verbal communication and the need to adapt to different platforms and communication formats.

Finally, online learning has changed the way college students approach education. Oral and written communication is an important skill that students should develop in this context, as it allows them to actively participate, express their ideas effectively, and better understand concepts. As online learning continues to evolve, it is important that institutions and students work together to promote strong and effective

oral and written communication at the university level. For this reason, this article seeks to describe the main characteristics of the compendium of publications indexed in the Scopus database related to the variable E-learning, Communication and Higher Education, as well. As the description of the position of certain authors affiliated with institutions, during the period between 2017 and 2022

2. General Objective

Analyze from a bibliometric and bibliographic perspective, the elaboration and publication of research works in high-impact journals indexed in the Scopus database on the variables E-learning, Communication and Higher Education, during the period 2017-2022.

3. Methodology

This article is carried out through a mixed orientation research that combines the quantitative and qualitative method.

On the one hand, a quantitative analysis of the information selected in Scopus is carried out under a bibliometric approach of the scientific production corresponding to the study of E-learning, Communication and Higher Education.

On the other hand, examples of some research works published in the area of study indicated above are analyzed from a qualitative perspective, starting from a bibliographic approach that allows describing the position of different authors against the proposed topic. It is important to note that the entire search was performed through Scopus, managing to establish the parameters referenced in Figure 1.

3.1. Methodological design

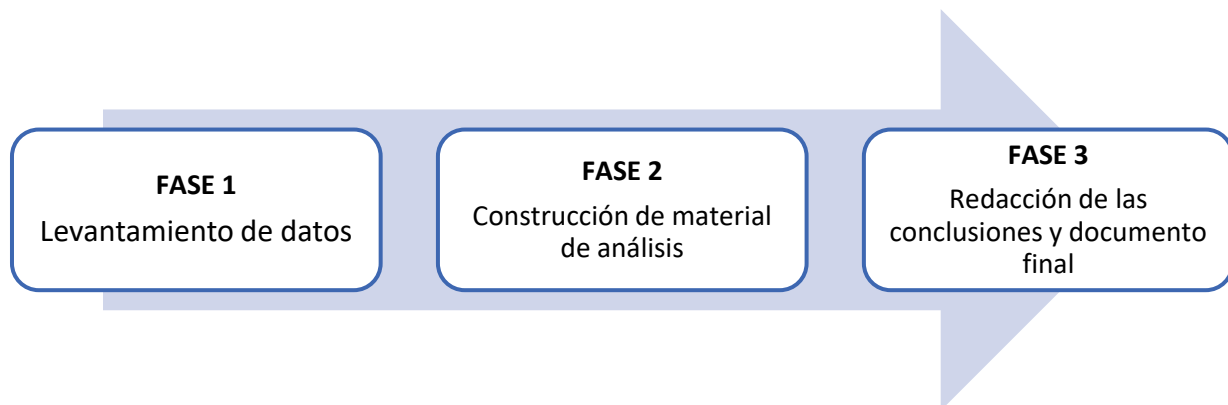


Figure 1. Methodological design

Source: Authors.

3.1.1 Phase 1: Data collection

Data collection was executed from the Search tool on the Scopus website, where 71 publications were obtained from the choice of the following filters:

- TITLE-ABS-KEY (e-learning, AND communication, AND higher AND education) AND (LIMIT-TO (PUBYEAR , 2022) OR LIMIT-TO (PUBYEAR , 2021) OR LIMIT-TO (PUBYEAR , 2020) OR LIMIT-TO (PUBYEAR , 2019) OR LIMIT-TO (PUBYEAR , 2018) OR LIMIT-TO (PUBYEAR , 2017)) AND (LIMIT-TO (AFFILCOUNTRY , "Mexico") OR LIMIT-TO (AFFILCOUNTRY , "Colombia") OR LIMIT-TO (AFFILCOUNTRY , "Ecuador") OR LIMIT-TO (AFFILCOUNTRY , "Peru") OR LIMIT-TO (AFFILCOUNTRY , "Brazil") OR LIMIT-TO (AFFILCOUNTRY , "Argentina") OR LIMIT-TO (AFFILCOUNTRY , "Costa Rica") OR LIMIT-TO (AFFILCOUNTRY , "Cuba") OR LIMIT-TO (AFFILCOUNTRY , "Dominican Republic") OR LIMIT-TO (AFFILCOUNTRY , "Guatemala") OR LIMIT-TO (AFFILCOUNTRY , "Puerto Rico") OR LIMIT-TO (AFFILCOUNTRY , "Uruguay"))
- Published documents whose study variables are related to the study of Learning Systems and Moodle.
- Limited to the years 2017-2022.
- Limited to Latin American countries.
- Without distinction of area of knowledge.
- Regardless of type of publication.

3.1.2 Phase 2: Construction of analysis material

The information collected in Scopus during the previous phase is organized and subsequently classified by graphs, figures and tables as follows:

- Co-occurrence of words.
- Year of publication.
- Country of origin of the publication.
- Area of knowledge.
- Type of publication.

3.1.3 Phase 3: Drafting of conclusions and outcome document

In this phase, we proceed with the analysis of the results previously yielded resulting in the determination of conclusions and, consequently, the obtaining of the final document.

4. Results

4.1 Co-occurrence of words

Figure 2 shows the co-occurrence of keywords found in the publications identified in the Scopus database.

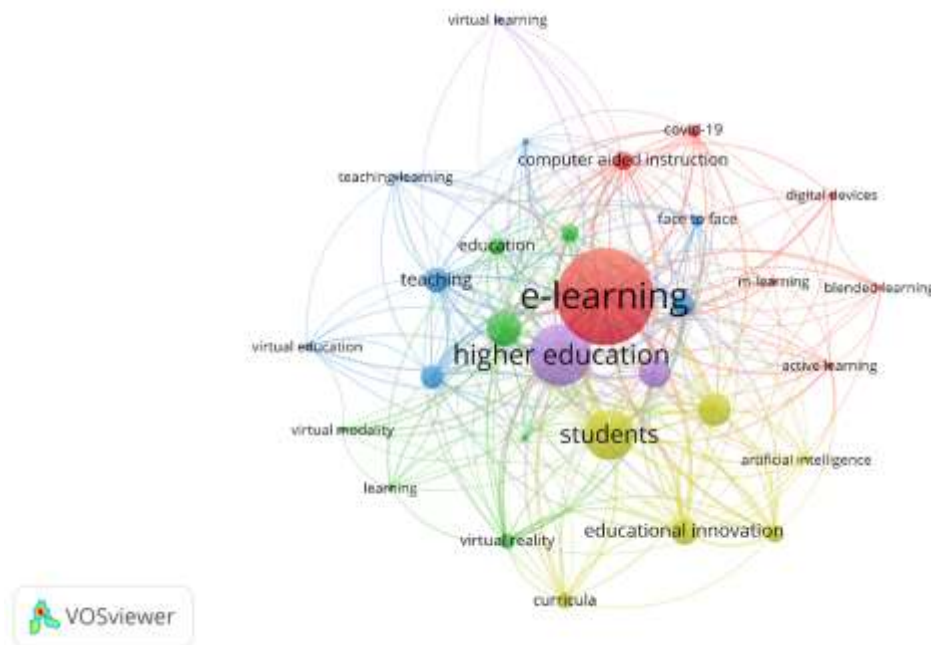


Figure 2. Co-occurrence of words

Source: Own elaboration (2023); based on data exported from Scopus.

E-Learning was the most frequently used keyword within the studies identified through the execution of Phase 1 of the Methodological Design proposed for the development of this article. Higher Education is also among the most frequently used variables, associated with variables such as Students, Virtual Reality, Educational Innovation. From the above, it is important to note that oral and written communication in e-learning encourages collaboration and active participation of students. Through discussion forums, video conferencing, and other online means of communication, students can interact with their professors and peers, exchange ideas, debate concepts, and build knowledge collectively. This promotes collaborative learning and the development of teamwork skills, which are highly valued in the world of work. E-learning and improving oral and written communication skills also prepare students for today's professional environment. Increasingly, organizations are adopting digital tools and remote work is becoming more common. Therefore, university students who have acquired online communication skills and are

proficient in e-learning will have an advantage when entering the job market.

4.2 Distribution of scientific production by year of publication

Figure 3 shows how scientific production is distributed according to the year of publication.

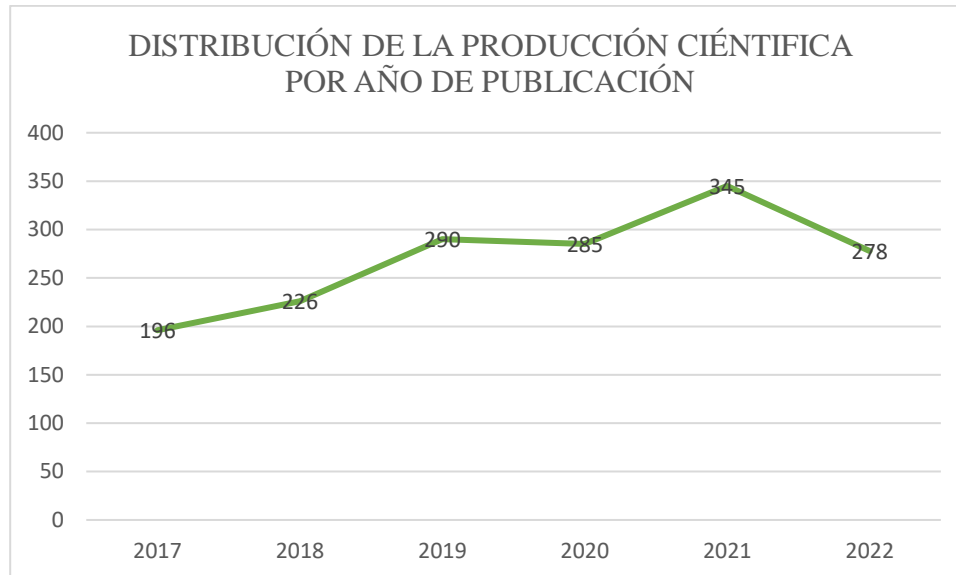


Figure 3. Distribution of scientific production by year of publication.

Source: Own elaboration (2023); based on data exported from Scopus

Among the main characteristics evidenced through the distribution of scientific production by year of publication, a level of number of publications registered in Scopus is notorious in the years 2021, reaching a total of 345 documents published in journals indexed in said platform. This article can be explained thanks to articles such as the one entitled "Use of ICT and LKT in higher education: a bibliometric analysis" this article aims at scientific production on the use of information and communication technologies (ICT) and learning and knowledge technologies (TLK) to improve pedagogical innovation and / or teaching/learning processes in distance and / or virtual higher education. METHOD. A systematic search of information was conducted in seven academic databases and data were analysed around 11 bibliometric indicators. RESULTS AND DISCUSSION: Conclusion: the term LKT is still incipient in academic database publications, and our findings show that most of the production deals with ICT. Similarly, the following trends are identified in the use of ICT in distance or virtual higher education: E-learning, B-learning, the use of MOOCs to mediate in education, the use

of social networks for educational purposes, the strengthening of the digital skills of students and teachers, promoting pedagogical innovation through technology, assessment through technologies, the use of mobile devices such as tablets or cell phones in the use of ICT in higher education, collaborative learning and the use of virtual learning environments. We also identified that authors prefer research articles to present their research results. Likewise, Spain is among the countries with the highest number of publications, while Latin American countries, such as Colombia and Argentina, show a growth in the number of publications on the subject; The English language predominates in the publications analyzed. (Contreras, 2022)

4.3 Distribution of scientific production by country of origin

Figure 4 shows how scientific production is distributed according to the nationality of the authors.



Figure 4. Distribution of scientific production by country of origin.

Source: Own elaboration (2023); based on data provided by Scopus.

Within the distribution of scientific production by country of origin, records from institutions were taken into account, establishing Mexico, as the country of that community, with the highest number of publications indexed in Scopus during the period 2017-2022, with a total of 24 publications in total. In second place, Colombia with 15 scientific papers, and Ecuador occupying the third place presenting to the scientific community, with a total of 14 documents among which is the article entitled "Effects of the use of simulators and an online platform in logistics

education" The objective of this work is to evaluate the effectiveness of the platform "Project GOAL" (used to transmit logistics concepts) by exploring the opinion of students about the critical success factors of educational platforms and determine how these elements influence motivation and skill development. such as student engagement, reflection on their learning, and self-directed learning.(Pacheco-Velazquez, 2022)

4.4 Distribution of scientific production by area of knowledge

Figure 5 shows the distribution of the elaboration of scientific publications from the area of knowledge through which the different research methodologies are implemented.

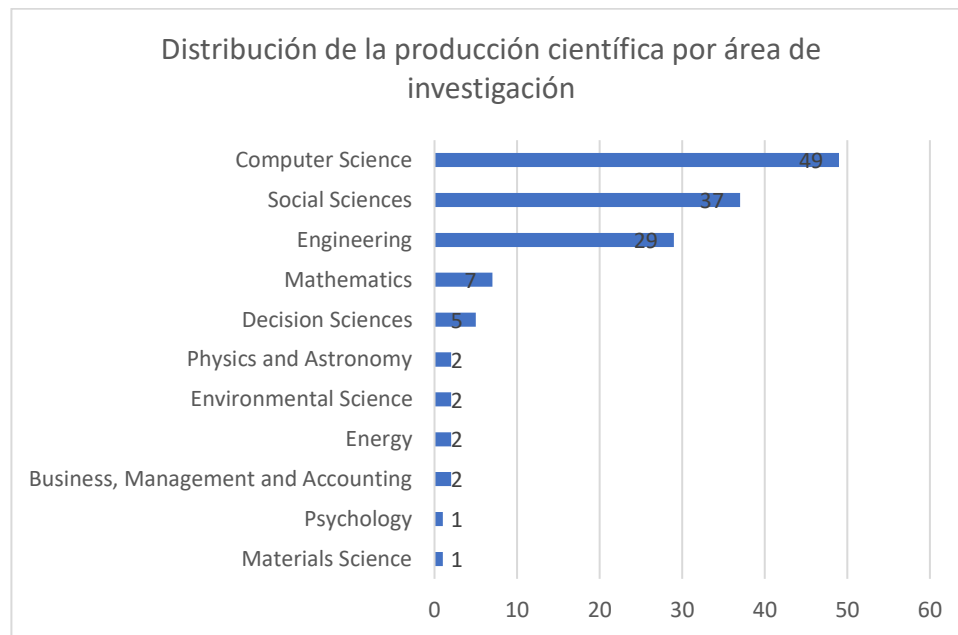


Figure 5. Distribution of scientific production by area of knowledge.

Source: Own elaboration (2023); based on data provided by Scopus.

Computer Science was the area of knowledge with the highest number of publications registered in Scopus with a total of 49 documents that have based their methodologies E-learning, Communication and Higher Education. In second place, Social Sciences with 37 articles and Engineering in third place with 29. The above can be explained thanks to the contribution and study of different branches, the article with the greatest impact was registered by the Computer Science area entitled "iWeek Experience: the innovation challenges of digital transformation in the industry" This study presents the iWeek Innovation Challenge to improve the innovation and information and communication technology skills of students through a CBL didactic technique. During this iWeek, a group of students developed efficient solutions with Microsoft Power

Apps to solve real challenges facing a global company. The results demonstrated that students could learn and apply knowledge quickly and develop practical and innovative solutions to real problems in the industry. It was a revelation for stakeholders to note how quickly students can become familiar with new information technology tools to propose solutions that positively impact the company. Strong partnerships between academia and industry are crucial to developing students' disciplinary and transversal competencies by challenging them to solve real-life problems in real-world settings. This paper presents a roadmap for planning and designing a CBL iWeek with an Industry educational partner. It includes implementation details, evaluation tools and results analysis. Finally, we also highlight the significant contributions of iWeek to explain the value of this immersive experience in the teaching-learning process.(ara-Prieto, 2022)

4.5 Type of publication

In the following graph, you will observe the distribution of the bibliographic finding according to the type of publication made by each of the authors found in Scopus.

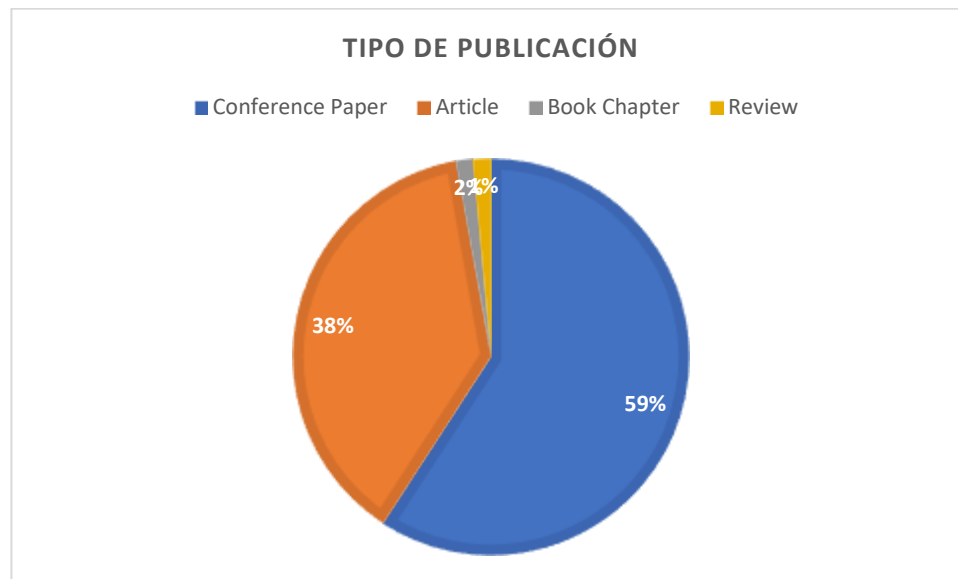


Figure 6. Type of publication.

Source: Own elaboration (2023); based on data provided by Scopus.

The type of publication most frequently used by the researchers referenced in the body of this document was the Session Paper with 59% of the total production identified for analysis, followed by Journal Article

with 38%. Chapter of the Book are part of this classification, representing 2% of the research papers published during the period 2017-2022 in journals indexed in Scopus. In this last category, the one entitled "Construction and implementation of a Go-Lab inquiry-based learning space for the teaching of Energy Conservation in engineering and technology programs in the General Physics course" stands out. This article presents the result of the pedagogical implementation and the path of creation of an inquiry-based learning space (ILS) in Go-Lab. The educational tool was applied in the General Physics course offered at a distance to engineering students of the National Open and Distance University within the framework of the World Pendulum Alliance (WP@ELAB) project. The results show that of the 345 students who made use of the resource, 234 passed the activity, which implies 68% of the sample. In addition, qualitative analyses of students' appreciation of the use of technology in science still show gaps in terms of lack of knowledge in technology and internet coverage. (Torres-Payoma, 2022)

5. Conclusions

Through the bibliometric analysis carried out in the present research work, it was established that Mexico was the country with the largest number of records published for the variables E-learning, Communication and Higher Education with a total of 24 publications in the Scopus database. Similarly, it was established that the application of theories framed in the area of Computer Science, were the most frequently used in measuring the impact generated by the implementation of online learning and the development of oral and written communication skills, in the context of Latin American universities is very important and has many advantages. First, online learning offers the opportunity to overcome geographical barriers and improve access to education across the region. This is particularly important in a large and diverse continent like Latin America, where access to connectivity and education is a challenge in remote or rural areas. Online learning allows students to receive a quality education regardless of their location, democratizing access to higher education. In addition, effective oral and written communication is critical to students' academic and professional development. In the context of an online university, where much of the communication takes place through digital platforms, written communication skills become even more important. The student must be able to express their thoughts clearly and consistently, participate in online discussions, and present their work effectively. Oral communication also plays a key role in online learning, as students should be able to participate in virtual lectures, presentations, and online

discussions. The development of oral communication skills provides the opportunity to express one's thoughts clearly and convincingly, which promotes collaborative learning and active participation in the university environment. In Latin America, the introduction of e-learning and a focus on developing oral and written communication skills can help close educational gaps and promote quality education for all. In addition, these internships prepare students to face the challenges and demands of today's work environment, which increasingly demands digital and communication skills. However, it is important to underline that there are still challenges in the implementation of e-learning and the development of communication skills in Latin America, such as the digital divide and the lack of Internet in some areas. A concerted effort by governments, educational institutions and relevant stakeholders is needed to ensure equal opportunities and access to online education across the region.

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