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Academic products of scientific dissemination and outreach as an innovative pedagogical strategy

Los productos académicos de difusión y divulgación científica como estrategia pedagógica innovadora

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ACADEMIC PRODUCTS OF SCIENTIFIC DISSEMINATION AND OUTREACH AS AN INNOVATIVE PEDAGOGICAL STRATEGY

LOS PRODUCTOS ACADÉMICOS DE DIFUSIÓN Y DIVULGACIÓN CIENTÍFICA COMO ESTRATEGIA PEDAGÓGICA INNOVADORA

ABSTRACT

The construction of scientific knowledge has been achieved through humanity's journey through history, reflected in various social vestiges transmitted by the media. These vestiges are essential in daily life for understanding and recovering how human beings interpret their reality. From this perspective, the training of educators is incredibly important. It should be geared towards understanding and producing academic works that disseminate and outreach scientific knowledge. This is fundamental for human development, and it's something to be celebrated!. All of this should be done from a pedagogical approach that prioritizes innovation to directly connect students to the real research process.

Keywords: academic products, scientific dissemination, pedagogical innovation, educational investigation

RESUMEN

La construcción del conocimiento científico se ha logrado gracias al caminar de la humanidad a través de sus momentos históricos, reflejado en diversos vestigios sociales que los medios comunicativos han transmitido. Estos vestigios son esenciales en la vida cotidiana para entender y recuperar la forma en que el ser humano interpreta su realidad. Desde esta perspectiva, la formación de pedagogas y pedagogos debe dirigirse a comprender y producir productos académicos que difundan y divulguen el conocimiento científico, fundamental para el desarrollo humano. Todo ello, desde un enfoque pedagógico que priorice la innovación para acercar directamente a los estudiantes al proceso investigativo real.

Palabras clave: productos académicos, divulgación científica, innovación pedagógica, investigación educativa

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1. Introducción

One of the skills that humans possess, which has allowed them to evolve favorably in each of the areas that make them up, is communication. This social tool has allowed humanity to achieve various social objectives and overcome the different adversities that time has placed before them. Communication is the quality that has allowed humans to evolve and move toward social, cultural, educational, technological, and, of course, scientific development. If humanity today has historical traces of its journey, it is thanks to the legacy left behind through sculpture, painting, and writing. Therefore, communication is vital to continue developing the present and future of society. (Sánchez Puentes, 2014).

In this sense, communicating the results of educational research is of great importance, since it is through this human action that scientists can publicize the main findings of their research. This is where university work takes on great relevance, as it is known that, in addition to fulfilling the social purpose of training professionals for society, higher education also has a responsibility to develop scientific knowledge through a systematic process, such as research.

University students are responsible for identifying problems and needs in their context, as educational research seeks to answer the questions that everyday life raises through social realities. However, identifying, problematizing, and researching is not enough, as it is necessary to develop various academic products that allow the scientific community and society to be presented with findings that contribute to an evolutionary process and thus improve the quality of life of individuals.

2. Development of the issue

2.1. Scientific reports

One of the main activities of scientific research is the collection of evidence that reveals the existence of a social or natural phenomenon. This is where the importance of systematizing this information lies, in order to give a positivist value to the collection and structuring of the information gathered. Given all this, research reports play a very important role in these processes, since "the report will be the main tool for publicizing what has been done in the research and the results that emerge from it." (Valero, 2018, p. 37).

In order to develop this type of academic product, it is important to have a research project in place to collect the relevant data for the research purposes. Various skills must be developed in order to produce a relevant research report that successfully searches for, summarizes, and correctly presents the details that make up the

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research process. In addition, it is important to master the formalism that characterizes scientific texts. (Pyrczak, 2005).

Each of these elements must be evaluated in accordance with the guidelines set by the writing style considered appropriate for the space where it will be published. However, some of the elements in the development of a research report are: title, abstract, introduction, method, results, discussion, bibliography, and appendices (Valero, 2018).

2.2. Scientific articles

On the other hand, scientific articles are one of the most widely used means of communication within the community, through their publication in indexed journals, which are responsible for disseminating science globally. According to Camps (2007), "A scientific article is a written report that communicates experimental results or conveys new knowledge or experiences based on already known facts." (p. 5).

These documents can be aimed at two different audiences or contexts: academic and non-academic. In the former, the results are presented to an audience of professors, researchers, or students at an educational institution. In the latter, the results are presented for commercial purposes to society in general (Henríquez Fierro & Zepeda González, 2004).

These articles are based on scientific findings, which must be valid, important, novel, and useful for the professional work of the scientific community in which the researcher is immersed. Like the report, the structure of the article will depend on the criteria set forth by the scientific journals to which they are addressed. However, its main elements are as follows: introduction, methodology, results, discussion, conclusions, and bibliography (Henríquez Fierro & Zepeda González, 2004).

2.3. Presentation

The dissemination of science is not something that is found exclusively in written communication. This text focused on finding some examples of academic products that can be developed through other fields. For example, presentations are defined by Sergio Arboleda University (2014) as:

> An argumentative text through which a person presents a thesis or reflection on a particular academic issue for discussion by a certain community. Generally, a paper is a text aimed at an academic community that is read by a speaker and most often presented at events such as conferences, symposiums, seminars, meetings, and similar gatherings (p. 1).

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This conceptualization pointed out that presentations help researchers disseminate their results through oral presentations, which can be given in front of various groups of researchers and/or academics from the same discipline. It is important to clarify that, in order to arrive at the oral presentation of the work, there must always be a written work that establishes a report of the research process. In this sense, it is the theoretical support necessary for the oral presentation, allowing the method, results, discussion, and conclusions of the research to be made known (Sánchez Upegui, 2010).

2.4. Scientific poster

Likewise, scientific posters are another way that researchers use to publicize their research work. This product "is a graphic summary of the progress or results of a research project and, as such, represents a relatively new form of scientific communication" (Van 't Hooft, 2012, p. 134). Therefore, academics require students to have the ability to synthesize information, as they must be very specific when presenting the results of scientific research. In addition, they must be creative and adapt to the requirements of the space in which the poster will be displayed (Universidad Autónoma de Nuevo León [UANL], 2014).

2.5. Scientific essay

The development of science is not based on applied research, as it requires a critical and analytical analysis of documentary information. Therefore, scientific essays have managed to recapture this reflective approach that stems from scientific research, based on the scientist's professional vision and experience. In view of this, Mendoza Martínez (2014) stated that:

> An essay is a dialogue. An imaginary dialogue between worlds where the writer communicates with the body of knowledge they are working with, with readers, and with themselves; it is, therefore, about their most relevant research concerns. (p. 1).

This helps us understand the importance of scientific essays at this historic moment in human history, as they allow researchers to share their concerns about what is happening within science. Scientific essays are therefore an indispensable tool for university students, as they explore social and academic concerns based on existing scientific knowledge.

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It is scientific essays that give documentary research its importance, as they allow some of the students' research projects to be published without the need to implement applied research tools. This helps to ensure that academic work is not left unfinished.

2.6. Photo essay

It is impossible to narrate human evolution using words alone; pictographic elements play an important role in the historical narrative of humanity, as photographs are important in science thanks to photographic essays. This is where the researcher becomes a photographer, and "the photographer would engage in a dialogue with otherness, translate it, and express it as a discourse in images." (Vázquez Escalona, 2011, p. 303).

This narrative *of the other* is effectively achieved through photography, an element that has sufficient characteristics to objectively reveal reality, based on the researcher's reality. In the photographic essay, "there are two main axes that will form the backbone of the body of work: first, the subject, and then the theme" (Colorado Nates, 2015, p. 1). This helps us visualize the closeness that this type of academic product generates when conducting scientific research.

2.7. Multimedia production

Technological advances in the 21st century have had a positive impact on the way scientific knowledge can be disseminated. That is why, today, the development of various multimedia products to communicate research is encouraged. This has led to a boom in the development of science, as these elements "should serve to promote and strengthen the relationships between science, communication, and society" (Cebrián Herreros, 2014, p. 100). Clear examples of these multimedia productions are podcasts, short films, and videos for social networks such as Facebook, TikTok, and YouTube. These are spaces where the results of scientific research processes can be shared.

2.8. Pedagogical intervention through educational innovation

Most of the elements that form part of this topic are developed through practical work, where students can apply theoretical knowledge related to educational research projects carried out throughout their teacher training, through heuristic actions. Based on this, it is possible to promote theoretical knowledge of the educational experience through: guided reading and debates, the creation of concept maps and diagrams, counseling, and the viewing of videos.

Each of the theoretical knowledge areas developed through these strategies can be directly linked to various teaching strategies that promote the mobilization and development of heuristic knowledge. Examples include problem-based learning, participation in forums, and the creation of multimedia products. These strategies

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allow theoretical knowledge to be linked to heuristic knowledge, as they are designed to promote active learning. In other words, students can learn theoretical content while carrying out the proposed activities.

2.9. Impact on students

Each of the proposed strategies must be developed through collaborative work, as this will enable students to acquire various axiological knowledge specific to working with others. This enhances axiological knowledge such as respect for otherness, leadership, assertive communication, empathy, solidarity with peers, commitment to the work performed, among others. Information and communication technologies (ICT) are vital for the comprehensive development of 21st-century students, as all social and work environments are related to these technologies. Therefore, in order to integrate them into teaching practice, the following is proposed:

- Use of *Google Forms*: Often, students arrive with instruments that have not been applied, and this tool allows for mass application with almost immediate statistical results.
- Use of *Canva*, *Prezi*, *Genially*: Development of various multimedia materials such as presentation slides, poster design, and scientific outreach videos.
- Using *Google Docs*: Today, thanks to this tool, collaborative work can be done synchronously and asynchronously, allowing for collaborative work despite distance..
- Uso de herramientas de inteligencia artificial (IA): Se podrá acercar a los estudiantes al uso de herramientas con IA para poder automatizar los procesos de búsqueda y organización de la información.
- This close use of ICT will help students carry out processes that are much closer to their reality, solving problems in real educational institutions, based on existing theory and innovating through problem solving and creativity.

3. Conclusions

Educational research is one of the essential elements in the development of the pedagogical discipline, as it is through this that scientific knowledge can be generated. This is essential for the development of society. The communication of educational research results culminates a vital process for social and scientific advancement, integrating various academic products that respond to contextual university needs. The social, technological, and communicative characteristics of society in this century lead us to the need to generate new means through which the main advances achieved through science can be made known.

The text highlights human evolution through communication, emphasizing scientific reports, articles, presentations, posters, essays, and multimedia productions as essential tools for disseminating findings. These products systematize evidence, foster pedagogical innovation, and link theoretical, heuristic, and axiological

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knowledge in collaborative educational interventions. Their structure varies according to the medium—written, oral, or graphic—but always prioritizes validity, novelty, and usefulness for academic or social audiences.

The integration of ICT such as *Google Forms*, *Canva*, *Prezi*, and AI optimizes research processes, enabling synchronous collaborative work and real solutions in educational environments. Teaching strategies, such as problem-based learning and forums, mobilize knowledge, enhancing empathy, leadership, and creativity in 21st-century students. This transforms research into heuristic action, improving educational quality through multimedia products accessible on platforms such as *YouTube* or *TikTok*.

These approaches not only close research cycles, but also project an evolutionary legacy, promoting horizontal scientific dialogues and practical applications. They invite future studies on AI in pedagogy and global dissemination, ensuring a sustained impact on society. Thus, research communication is positioned as a pillar of comprehensive human development.

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REFERENCES

Camps, D. (2007). El artículo científico: desde los inicios de la escritura al IMRYD. *Archivos de Medicina, 3*(5).

Cebrián Herreros, M. (2014). *Divulgación audiovisual, multimedia en la red de la ciencia y tecnología*. IESPAL – ASECIC.

Colorado Nates, Ó. (2015). El Foto Ensayo: Tema, sujeto y narrativa. *Página web oficial de Oscar en Fotos.* https://oscarenfotos.com/2015/03/07/el-foto-ensayo-tema-sujeto-y-narrativa/

Henríquez Fierro, E. & Zepeda González, M. I. (2004). Elaboración de un artículo científico de investigación. *Ciencia y Enfermería, X*(1), 17-21.

Mendoza Martínez, V. (2014). Guía para la elaboración de ensayos de Investigación (ensayo de un ensayo). *Revista del Centro de Investigación de la Universidad La Salle, 7*(26), 63–79. https://doi.org/10.26457/recein.v7i26.239

Pyrczak, F. (2005). *Writing Empirical Research Reports*. Pyrczak Publishing.

Sánchez Puentes, R. (2014). *Enseñar a investigar. Una didáctica nueva de la investigación en ciencias sociales y humanas. Cuarta edición*. Universidad Nacional Autónoma de México.

Sánchez Upegui, A. A. (2010). Pautas para diseñar ponencias o presentaciones académicas e investigativas. *Revista Virtual Universidad Católica del Norte, 30*.

UANL. (2014). *Cartel Científico*. Universidad Autónoma de Nuevo León. https://www.uanl.mx/utilerias/chip/descarga/cartel_cientifico.pdf

Universidad Sergio Arboleda. (2014). *La Ponencia*. Universidad Sergio Arboleda. https://www.usergioarboleda.edu.co/wp-content/uploads/2016/01/guia-la-ponencia.pdf

Valero, S. (2018). *El informe de Investigación*. Universitat Oberta de Catalunya. https://n9.cl/3mo4i

Van 't Hooft, A. (2012). Cómo elaborar un cartel científico. *El Colegio de San Luis, 2*(5).

Vázquez Escalona, A. (2011). El ensayo fotográfico, otra manera de narrar. *Quorum Académico, 8*(2), 301-314.

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