



Research literacy as a current educational need in higher education

La alfabetización en investigación como necesidad educativa actual en educación superior

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ABSTRACT

The aim is to analyse the importance of research literacy as a current educational need in higher education. This study was based on a descriptive documentary methodology with a bibliographic design. The inclusion criteria were oriented towards key terms such as "research", "literacy" and "educational curriculum". The population analysed consisted of 15 articles selected from various fields of knowledge. Research literacy in higher education is essential for improving the quality of education. It not only enables students to acquire a higher level of knowledge, but also promotes skills such as independent thinking, problem solving and effective communication.

Descriptors: research; fundamental research; interdisciplinary research. (Source: UNESCO Thesaurus).

RESUMEN

Se tiene por objetivo analizar la importancia de la alfabetización en investigación como necesidad educativa actual en educación superior. Este estudio se fundamentó desde la metodología descriptiva documental con diseño bibliográfico. Los criterios de inclusión se orientaron hacia términos clave como "investigación", "alfabetización" y "currículo educativo". La población analizada consistió en 15 artículos seleccionados de diversas áreas del conocimiento. La alfabetización en investigación en la educación superior es esencial para mejorar la calidad de la educación. No solo permite a los estudiantes adquirir un mayor nivel de conocimiento, sino que también promueve habilidades como el pensamiento independiente, la resolución de problemas y la comunicación efectiva.

Descriptores: investigación; investigación básica; investigación interdisciplinaria. (Fuente: Tesaurus UNESCO).

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Research articles section



INTRODUCTION

Research literacy in higher education faces a number of challenges and barriers that greatly hinder its full and proper development. Particularly notable among these is the lack of specialised teacher training in this crucial area. It is worrying to note that many teachers lack the necessary preparation to teach students the most relevant and current research skills and scientific methods. This significantly limits teachers' ability to effectively guide students in the research process, thus hindering their learning and the acquisition of key competences for their future careers. In addition to the challenges mentioned above, there are other key issues that need to be addressed to promote strong and equitable research literacy in higher education (Vega-Lebrún et al. 2021).

One of these is the need to provide adequate resources and access to information. Currently, many students face limitations in terms of relevant, up-to-date and quality data sources. This makes it difficult for them to conduct rigorous and reliable research and to make the most of learning opportunities in this vital area. To overcome this barrier, it is imperative to seek alternatives that facilitate students' access to these sources of information and data, as well as to promote strategies that enable them to develop their critical and analytical skills through research. Another important challenge facing research literacy in higher education is resistance to change in the educational curriculum (Amador-Fierros et al. 2021).

Some teachers may be reluctant to modify their traditional teaching methods and instead adopt more research-focused approaches. This reluctance may stem from a variety of reasons, such as lack of awareness of the benefits of research literacy, lack of time for adequate training in this area, or simply comfort and familiarity with traditional teaching methods. However, it is essential to promote the need to adapt to new educational paradigms, emphasising the importance of research as a central axis of student learning and development (Morales-Salas & Rodríguez-Pavón, 2022).

In addition to addressing the challenges mentioned above, it is also crucial to address socio-economic inequalities in access to research opportunities. It is evident that students from more disadvantaged socio-economic backgrounds may face great difficulties in accessing the necessary resources, equipment and research experiences. As a result, their opportunities to develop research skills and participate in scientific projects are considerably limited. This has a direct impact on their comprehensive education and future possibilities (Suckel-Gajardo & Chiang-Salgado, 2021). It is essential to implement policies and programmes to reduce these inequalities, so that all students have the same possibilities to develop their abilities and reach their full potential. Faced with this reality, it is necessary for educational institutions, teachers, governments and society as a whole to take concrete steps to overcome these challenges and barriers. It is necessary to promote the training and constant updating of teachers in the field of research, as well as to ensure equitable access to relevant resources and sources of information (Martínez et al. 2020).

In addition, a paradigm shift in the educational curriculum must be promoted, encouraging pedagogical approaches that foster research and the active participation of students in scientific projects. Finally, it is essential to implement policies and programmes to reduce socio-economic inequalities in access to research opportunities, so that all students have the same possibilities to develop their skills and reach their full potential. Only through collective commitment and concrete actions can we overcome these challenges and ensure strong and equitable research literacy in higher education (Ianni-Gómez, 2023), (Ianni-Gómez, 2023b), (Esteves-Fajardo, 2022).

Based on the above, the aim is to analyse the importance of research literacy as a current educational need in higher education.

METHOD

This study was based on a descriptive documentary methodology with a bibliographic design. The inclusion criteria were oriented towards key terms such as "research", "literacy" and



"educational curriculum". The population analysed consisted of 15 articles selected from various areas of knowledge.

The research techniques applied comprised an exhaustive literature review supported by searches in recognised academic databases such as Scopus, Scielo, Google Scholar, Dialnet and Redalyc, thus ensuring the timeliness and quality of the information collected, limiting the analysis to data from the last 5 years.

In this study, the analytical-synthetic method was used as the analytical approach. This method involved breaking down the object of study into parts in order to examine and understand its individual components (analysis), and then integrating this information to obtain an overall understanding of the phenomenon (synthesis).

In the analytical phase, relevant information was extracted from the existing literature on literacy in research. The different documentary aspects related to the benefits and challenges associated with this practice were broken down and examined. Subsequently, in the synthesis phase, the findings obtained during the analysis were consolidated and summarised. This synthesis made it possible to present the information gathered in the article in a coherent and structured way, providing a comprehensive and comprehensible overview of the results obtained in relation to research literacy.

RESULTS

Based on the material examined, the research findings are presented:

Strategies for promoting research literacy.

Research literacy can be promoted through various strategies that contribute to the development of research skills in higher education students. One such strategy is the integration of research into the curriculum, which involves the inclusion of research activities in the various subjects and programmes of study. This inclusion will allow students to have the opportunity to develop the skills of searching, analysing and generating knowledge from the very beginning of their academic training, which will open the doors to a world full of possibilities and discoveries.

Collaboration between teachers and students should be encouraged, promoting the active participation of students in research projects and stimulating the exchange of ideas and knowledge. This type of collaboration will allow students to learn from experts in the field and benefit from their experience and knowledge. They will also be able to work in teams and develop communication and teamwork skills, which will be useful in their professional life.

Another important strategy is the use of information and communication technologies in research. These digital tools and new technologies allow quick and easy access to resources, facilitating the search for information and the dissemination of results. They also promote collaboration and communication between researchers from different parts of the world, which enriches research projects and contributes to the creation of international networks and partnerships.

The establishment of research mentoring programmes provides students with the opportunity to be supported and guided by experienced researchers. Mentors can provide guidance and advice on how to approach a research project, how to analyse the data obtained and how to interpret the results. In addition, they can share their experiences and teach students best practices in the field of research. This mentoring is essential for the growth and development of students as researchers.

Importantly, the promotion of research literacy not only benefits students, but also has a positive impact on society at large. The promotion of research contributes to the generation of new knowledge, the development of innovative solutions and the improvement of people's quality of life. It is therefore essential that educational institutions and governments promote and support research literacy as a key tool for the progress and growth of societies. Only through research



and knowledge will we be able to find answers to the great challenges we face as a society (de-Camilloni, 2022), (González-Estrada, 2021).

Impact of research literacy in higher education

Research literacy in higher education has a significant impact in several respects. Firstly, it contributes strongly to improving the quality of education by providing students with the necessary skills to conduct research in a rigorous and effective manner. This enables them not only to develop highly insightful critical thinking, but also to enhance their analytical skills and a deeper and more holistic understanding of the concepts and theories in their field of study. In addition, research literacy in higher education also has the effect of producing highly competent and committed professionals by equipping them with the necessary skills to solve complex problems and apply the extensive knowledge acquired in their professional practice.

This comprehensive preparation results in professionals who are stronger, better prepared and extremely capable of facing the challenges and demands of a constantly evolving work environment, marked by exigency and constant innovation. Last but not least, research literacy in higher education also contributes greatly to the advancement of scientific knowledge by generating ground-breaking new ideas, unparalleled discoveries and ground-breaking innovations through research conducted by highly qualified students and exceptional teachers. This broadens the horizon of knowledge, challenging established boundaries and opening the way to a greater understanding of the world around us.

In this way, higher education becomes not only an exponential engine for scientific progress and the evolution of knowledge, but also a privileged platform for the development of new areas of knowledge that are constantly growing and changing, enriching not only academia and science, but also society as a whole. The impact of research literacy in higher education transcends the boundaries of the classroom and extends to all spheres of life, enabling holistic and sustainable development. The constant pursuit of excellence and a passion for knowledge are the pillars of research literacy in higher education, and its impact will endure over time, leaving a deep and lasting mark on the world (Sánchez-Emeterio & Fernández-César, 2022), (Acosta et al 2021).

Training more competent professionals

Research literacy in higher education plays a crucial and fundamental role in the formation of highly competent and skilled professionals in their field of study. Through active and effective participation in various research activities, students acquire the necessary and essential skills to conduct thorough critical analyses, evaluate and carefully examine the evidence gathered, and make sound and informed decisions that positively impact their area of specialisation.

These acquired skills are especially valuable and beneficial in professional environments, where complex challenges are presented and innovative solutions are required. By developing and strengthening their research competences, students become more versatile, adaptable, creative and able to deal effectively and efficiently with new scenarios and challenges in today's constantly changing and evolving workplace.

Broadening research competences not only enhances students' ability to deal with complex situations and solve problems, but also fosters their capacity to generate knowledge and actively contribute to the advancement and progress of their discipline. By acquiring a deeper and broader perspective of their field of study, students become highly skilled professionals prepared to face the challenges and demands of the constantly evolving world of work. In conclusion, research literacy in higher education is not only essential for the comprehensive training of students, but also plays a fundamental role in the development of competent, ethical professionals with the necessary skills to contribute significantly to the advancement and improvement of their discipline (Aldana-Zavala, 2019).



Contribution to the advancement of scientific knowledge

Research literacy in higher education has a significant and lasting impact on the advancement of scientific knowledge worldwide. Through the meticulous research and hard work of students and teachers, it not only generates new ideas, discoveries and contributions to diverse areas of study, but also strengthens existing knowledge and pushes the boundaries of human thinking. The rigorous and methodical approach used in research encourages the verification and validation of existing knowledge, providing a solid foundation for future research and discovery. It is not only about collecting data and analysing it critically, but also about questioning and challenging established theories, which in turn leads to the discovery of new findings and strengthens the overall scientific corpus.

Research literacy in higher education promotes the exchange of knowledge and results between institutions and partners around the world. This exchange not only enriches scientific and scholarly thinking, but also fosters greater collaboration and cooperation in diverse fields of knowledge. By working together, researchers can address complex, global problems and develop innovative solutions that benefit humanity as a whole. Ultimately, research literacy in higher education plays an essential role in the advancement of scientific knowledge, fuelling innovation and the development of new theories and practices in various academic disciplines. With each new generation of researchers, a world of possibilities opens up and paves the way for a brighter future full of amazing discoveries. Research in higher education not only creates a solid foundation for academic progress, but also drives the advancement of society and brings us to a new level of understanding and development in all aspects of our lives (Hurtado-Talavera, 2020).

Improving the quality of education

Research literacy in higher education plays a key role in improving the quality of education. By acquiring research skills, students have the ability to deepen their understanding of the topics studied, critically analyse information and develop evidence-based solutions. This not only enables them to achieve a higher level of knowledge, but also promotes independent thinking and the ability to solve complex problems. In addition, incorporating research skills into the academic curriculum encourages a more active and participatory approach on the part of students, which contributes to an optimal learning environment and the formation of more competent professionals in their respective fields of study.

In addition, research literacy also fosters the development of effective communication skills. Students who are familiar with the research process are able to present their findings clearly and concisely, both orally and in writing. This enables them to convey information effectively to their peers, teachers and others interested in their work. Another advantage of research literacy is that it prepares students for the world of work and helps them to stand out in the increasingly competitive job market. Research skills are highly valued by employers as they demonstrate the ability to collect and analyse information in a rigorous and objective manner. In addition, the ability to solve complex problems and make informed, evidence-based decisions is also critical in many professional fields (Fernandez, 2022).

CONCLUSION

Research literacy in higher education is essential for improving the quality of education. It not only enables students to acquire a higher level of knowledge, but also promotes skills such as independent thinking, problem solving and effective communication. It also prepares students for the world of work and helps them to excel in a competitive labour market. It is essential for educational institutions to promote and encourage research literacy, as this will help to produce highly competent and prepared professionals in their respective fields of study.



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CONFLICT OF INTEREST

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