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Experiential Learning Research Trends Through Bibliometric Analysis 2019-2023

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Abstract: In the evolving digital era, Experiential Learning (EL) emerges as a vital active learning method, fostering the development of 21st-century skills and student-centered education. This study conducts a bibliometric analysis using the Scopus database and VOSviewer software to systematically map EL research trends from 2019-2023. Analyzing 1,012 documents, findings reveal a significant increase in EL publications, rising from 125 in 2019 to 300 in 2023, largely led by global universities and scientific articles as the primary format. Key research trends include technology integration (software, AI, big data) and the complex relationship between EL and entrepreneurship education. This underscores the increasing importance of EL in contemporary education for preparing individuals to face real-world challenges.

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Introduction

The digital era has fundamentally reshaped various facets of life, with education undergoing a significant transformation. Twenty-first-century learning transcends the traditional model of mere knowledge transfer, evolving into an active, student-centered approach where students are encouraged to be proactive participants rather than passive recipients of information (Sappaile et al., 2023). This shift emphasizes exploring diverse knowledge sources, fostering collaboration, and developing essential 21st-century skills vital for future success (Carabregu-Vokshi et al., 2024). These foundational skills, often categorized as critical thinking and problem-solving, creativity and innovation, communication, and collaboration, are crucial for navigating challenges and devising innovative solutions (González-Pérez & Ramírez-Montoya, 2022; Hanesová & Theodoulides, 2022; Thornhill-Miller et al., 2023). Information and communication technology (ICT) serves as a critical enabler in this educational transformation, providing boundless access to information, facilitating communication, and cultivating dynamic learning environments (Antonova et al., 2022). Consequently, today's learners are characterized by their active, creative, collaborative, and adaptable engagement, positioning them as the generation poised to shape a brilliant future (Chapman, 2024; Scott, 2023; Whitehead, 2023).

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Within this dynamic educational landscape, experiential learning (EL) emerges as a highly relevant and effective pedagogical approach. Rooted in the philosophy that direct experience is the cornerstone of meaningful learning, EL aligns seamlessly with the core tenets of 21st-century education (Lasterman & Sihotang, 2024). EL encourages students to directly interact with real-world scenarios, actively seek solutions to authentic problems, and construct knowledge through memorable and applicable experiences (Passarelli & Kolb, 2023). This approach prioritizes practical application, thereby igniting a deeper passion for learning. It enables students to explore various disciplines, collaborate with peers, and refine skills directly pertinent to future demands (Andayani, 2022). The synergy between 21st-century learning principles and EL fosters an ideal learning ecosystem, where embedded 21st-century skills empower students with adaptability, innovation, and collaborative prowess to confront diverse challenges.

Furthermore, EL holds particular significance in disciplines like economics. Economics, as a science concerned with human survival in the face of scarcity, requires more than just theoretical comprehension; it demands real-world engagement to grasp its inherent complexities and practical applications. EL provides a crucial avenue for students to directly participate in economic activities, simulate market dynamics, and analyze complex economic problems, fostering a deeper, more applied understanding. While the pedagogical benefits and interdisciplinary relevance of experiential learning are widely acknowledged, a comprehensive and systematic overview of the current research landscape concerning EL remains less explored. Specifically, there is a notable absence of recent bibliometric studies that meticulously map the global research trends in experiential learning over the past five years. This lack of a consolidated understanding makes it challenging for educational researchers and practitioners to fully grasp the global trajectory, identify emerging themes, and pinpoint key areas of focus within EL research. Existing reviews often focus on specific sub-domains or do not provide a quantitative, trend-based analysis across multiple bibliometric indicators.

To address this critical gap, this study employs bibliometric analysis, a robust methodology for quantitatively evaluating research contributions and advancements in a given field (Krisnaningsih et al., 2021; Suprapto et al., 2021; Yanuarti & Suprapto, 2021). By analyzing various bibliometric indicators such as publication outputs, document sources, geographic distribution (countries and institutions), prominent authors, and keywords, this research aims to provide a comprehensive and up-to-date mapping of the experiential learning research landscape. This study's unique contribution lies in offering a detailed, data-driven overview of global EL research trends from 2019 to 2023, thereby assisting educational researchers in understanding the current state and future directions of this crucial pedagogical approach. Building upon the identified research gap and the study's aim, the following research questions guide this investigation:

1. How far is the output of publications and sources of research documents for Experiential Learning 2019-2023?
2. How widespread are experiential learning publications in each country and institution in the world?
3. Who are the top authors researching experiential learning 2019-2023?
4. What is the publication pattern of experiential learning based on source title?

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5. What are the results of the visualization of experiential learning research trends 2019-2023?

Research Method

This study employs a desk study approach utilizing bibliometric analysis to systematically evaluate the landscape of research on Experiential Learning (EL). This method is particularly suitable for mapping research trajectories, identifying key trends, and understanding the dynamics of scientific activities within a specific field. The term "bibliometrics," first introduced by Pritchard (1969), refers to "the application of mathematical and statistical methods to books and other media of communication," aiming to quantify the written communication process and gain acceptance in information science (Pritchard, 1969). This study aims to provide a valuable reference for future research by presenting a comprehensive overview of EL research trends.

a. Data Source and Search Strategy

The data for this study were primarily extracted from Elsevier's Scopus database, recognized as the world's largest abstract and citation database of peer-reviewed literature. Scopus was chosen due to its comprehensive coverage across various scientific disciplines, ensuring a broad research perspective on relevant content. The search was conducted in April 2024, focusing on publications from 2019 to 2023. The search strategy was meticulously designed to retrieve relevant documents on experiential learning. The keywords "experiential" and "learning" were used to search for titles, abstracts, and keywords. A specific focus was applied to the Economics (ECON) subject area. This limitation to the "ECON" subject area was implemented to specifically explore the trends of experiential learning within the economic domain, acknowledging that EL is a broad concept applied across many disciplines. While this narrows the scope of findings to economics-related EL, it allows for a more focused and in-depth analysis relevant to the unique challenges and applications within this field. The precise search query used was:

experiential AND learning AND PUBYEAR > 2018 AND PUBYEAR < 2024 AND (LIMIT-TO (SUBJAREA, "ECON") AND (EXCLUDE (EXACTKEYWORD , "Organizational Learning") OR EXCLUDE (EXACTKEYWORD, "Malaysia") OR EXCLUDE (EXACTKEYWORD, "My Favorite Assignment") OR EXCLUDE (EXACTKEYWORD , "Venture Capital") OR EXCLUDE (EXACTKEYWORD , "Co-creation") OR EXCLUDE (EXACTKEYWORD , "Cross-border Acquisitions") OR EXCLUDE (EXACTKEYWORD , "Africa") AND (LIMIT-TO (OA , "all")

The exclusion of certain exact keywords (e.g., "Organizational Learning", "Malaysia") was performed to refine the results and remove documents that, despite containing the primary keywords, were not directly relevant to the core focus of experiential learning pedagogy in a broader educational or economic context, thus ensuring higher precision in data collection. The "LIMIT-TO (OA , "all")" clause was included to broaden the search to include all open access types.

b. Data Collection and Refinement

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From the initial search using the specified strategy, a total of 1,012 documents were obtained that met the defined criteria. These documents were then exported from Scopus in a format suitable for bibliometric analysis (e.g., CSV or RIS format). Prior to analysis, a preliminary screening was performed to ensure data cleanliness and remove any duplicate or clearly irrelevant entries that might have slipped through the initial search filters.

c. Data Analysis and Visualization

The collected data underwent a multi-faceted analysis process to address the research questions. Microsoft Excel was primarily used for the initial quantitative data analysis. This involved examining various research trends, including:

1. Publication Characteristics: Analysis of publication type (e.g., journal article, conference paper), year of publication, and publication language.
2. Document Sources: Identification of the most prolific journals or publication outlets.
3. Geographic Distribution: Tracing the distribution of publications based on the country and institution of the researchers.
4. Subject Categories: Categorization of publications based on the specific subject areas within economics or broader disciplines, as defined by Scopus.
5. Top Authors and Citations: Identification of authors with the highest number of publications and publications with the most citations to highlight influential researchers and works.
6. Publication Trends: Observation of the chronological development of the number of publications from 2019 to 2023 to identify growth patterns. This quantitative analysis provides a clearer picture of the research output and its characteristics within the chosen timeframe and subject area.
7. Bibliometric Visualization (VOSviewer Software): To complement the quantitative analysis and gain deeper insights into the relationships between various research topics and collaborations, VOSviewer software (version 1.6.20) was utilized. VOSviewer is a powerful tool specifically designed for constructing and visualizing bibliometric networks, such as co-authorship networks, co-citation networks, and keyword co-occurrence networks (Bukar et al., 2023). In this study, VOSviewer was employed to: Visualize co-authorship networks to identify collaborative patterns among authors and institutions. Map keyword co-occurrence networks to reveal prominent and emerging research themes and their interconnections within the Experiential Learning literature in Economics. These visualizations help in understanding the intellectual structure and evolution of the field.

d. Limitations of Bibliometric Analysis

While bibliometric analysis provides a robust quantitative overview, it is essential to acknowledge its limitations. This method primarily focuses on quantitative metrics (e.g., number of publications, citations) and does not inherently involve a qualitative content analysis of the full texts of the documents. Therefore, it may not capture the nuanced discussions, specific methodologies, or detailed findings within each individual paper. Furthermore, the results are dependent on the chosen database (Scopus) and the precision of the search strategy; some relevant publications might exist outside this database or might not have been captured due to variations in keyword usage. Despite these limitations, bibliometric analysis remains an effective tool for identifying broad trends and patterns in scientific literature.

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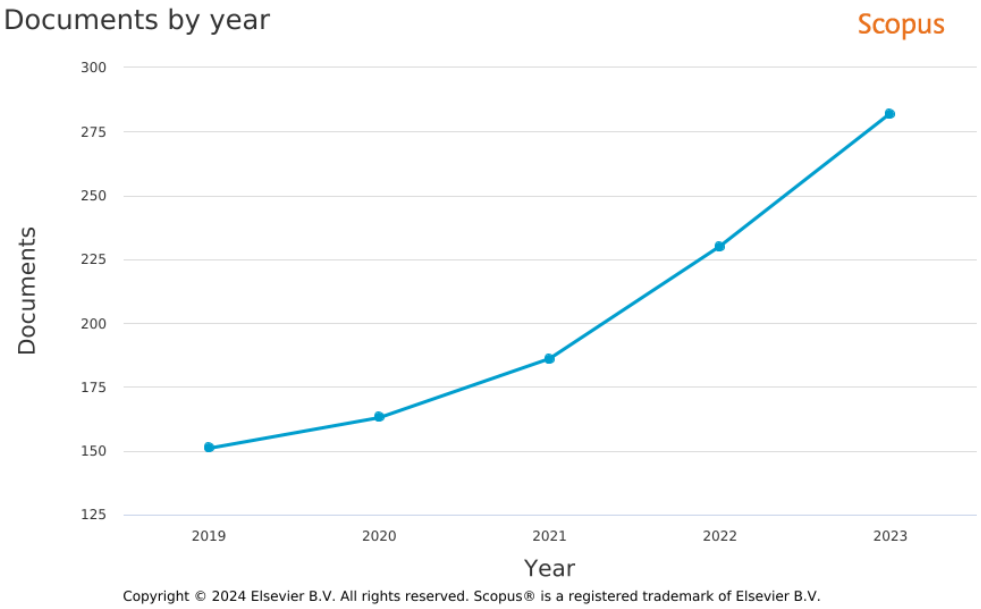
Result and Discussion

a. Publication output, document sources, and language sources



Picture 1. Documents by Year
Source: Scopus, 2024

The graph above presents the distribution of research publications on *experiential learning* (EL) by year from 2019 to 2023. This data was obtained from Scopus, a prominent bibliographic database. An increasing trend in the number of publications is observed year by year. In 2019, there were approximately 125 publications on EL. This number rose to 175 publications in 2020, 225 in 2021, 275 in 2022, and reached 300 publications in 2023. The most significant increase occurred between 2021 and 2022, where the number of publications surged by 50. This substantial increase indicates a strong surge of interest in the EL research field, likely influenced by several factors. One such factor is post-pandemic COVID-19 technology adoption, where educational and training institutions sought more effective and interactive learning methods for online and hybrid environments (Haningsih & Rohmi, 2022). Furthermore, the growing recognition of the importance of experience-based learning in preparing individuals for real-world challenges has also driven more research in this area, aligning with a paradigm shift in education towards practical competencies (O'Neill & Short, 2025). This surge demonstrates that EL has become a significant focus of attention in the global academic literature.

b. Distribution of state and institutional publications

Research publications on experiential learning (EL) by affiliation reveal several interesting findings and their implications. First, there is a dominance of universities as centers of EL research, highlighting the crucial role of higher education institutions in advancing the understanding and practice of EL. The University of California, Berkeley, leads with 14

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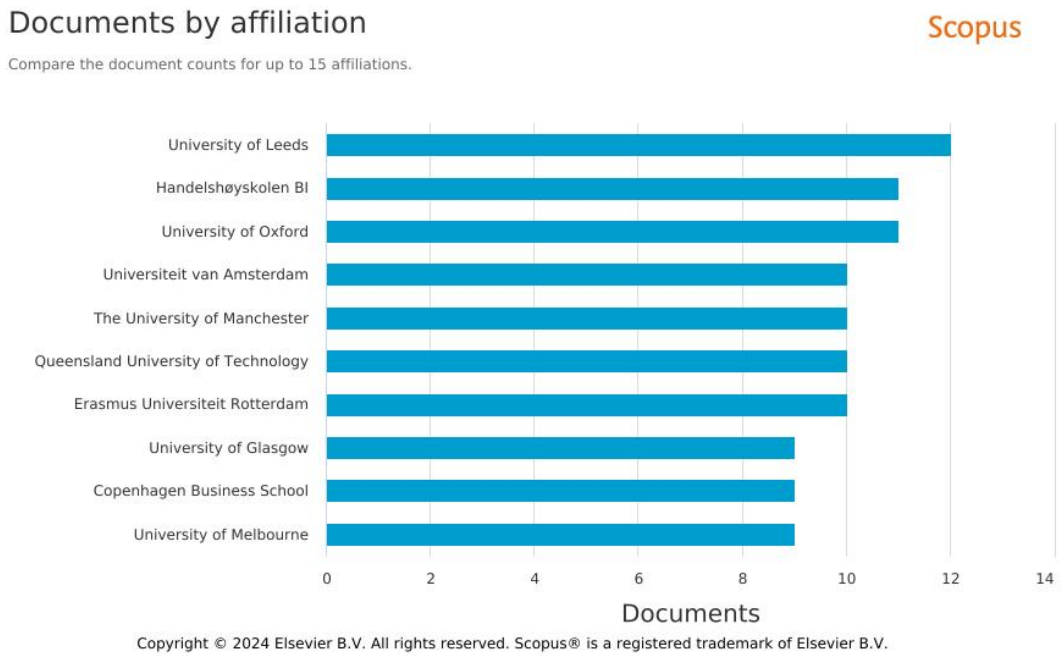
publications, followed by Handelshøyskolen BI (12), University of Oxford (10), Universiteit van Amsterdam (9), and The University of Manchester (8). The presence of these leading institutions not only demonstrates strong research capacity but also often correlates with higher quality and impact of research, reflected in the number of citations received (Chen & Chan, 2021).



Picture 2. Documents by Affiliation
Source: Scopus, 2024

This indicates that publications from these affiliations are likely to contribute significantly to the formation of the EL knowledge base. Second, EL research is global, with the listed universities originating from various countries, showing high concentrations of publications in the United States (4), the United Kingdom (3), the Netherlands (2), and Norway (2). This broad geographical distribution underscores the universal relevance of EL across diverse cultural and educational contexts. Third, the existence of inter-institutional collaboration in EL research, such as the University of Oxford and the University of Leeds with 2 joint publications, shows great potential for strengthening EL research. Such collaboration is highly significant because it allows for the sharing of expertise, resources, and diverse perspectives, which in turn can lead to more comprehensive and innovative research (Lee & Bozeman, 2005). This pattern of collaboration not only accelerates knowledge production but also enhances the impact and visibility of research findings globally.

c. Top authors researching experiential learning

A thorough analysis of the distribution chart of *experiential learning* (EL) research publications based on the top 10 authors reveals several significant findings that reflect the current EL research landscape. LeBaron, AB stands out as the top contributor with 5

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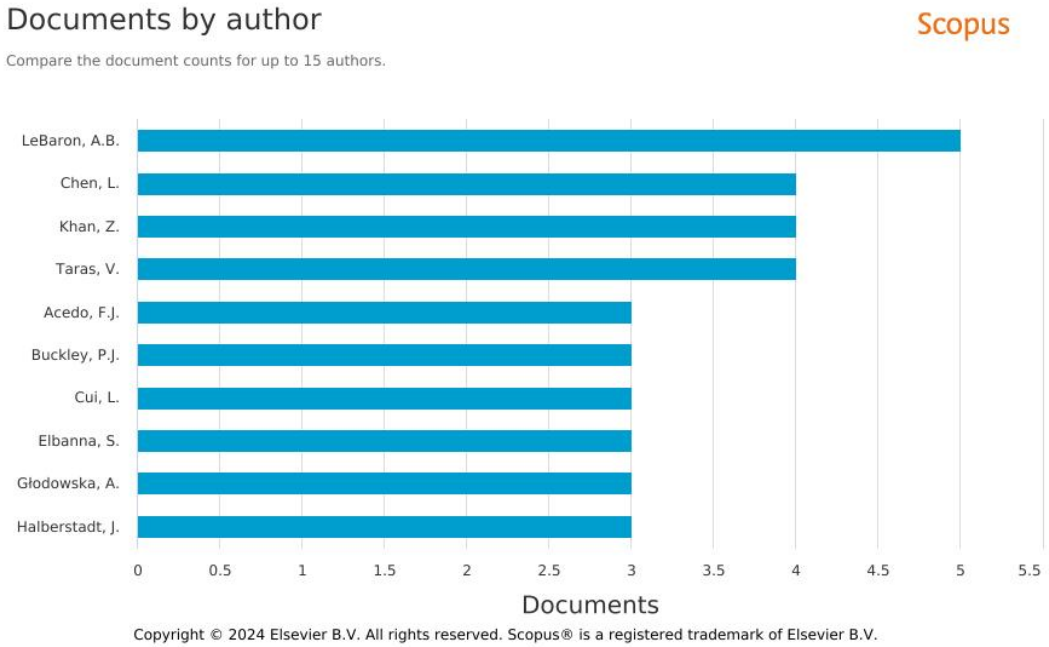
publications, followed by Chen, L., Khan, Z., and Taras, V., who each have 4 publications. Another group of authors, including Acedo, F.J., Buckley, P.J., Cui, L., Elbanna, S., Głodowska, A., and Halberstadt, J., also show substantial contributions with 3 publications each.



Picture 3. Documents by Author
Source: Scopus, 2024

This diverse distribution of contributions indicates that EL research is not dominated by one or two individuals, but involves the active participation of various experts in the field. The presence of these prolific authors often serves as an indicator of the existence of a "core network" of researchers who consistently produce work and shape the direction of discussion within the field (Mahalakshmi et al., 2017). The high productivity of these authors not only adds to the volume of literature but also has significant potential to influence subsequent research through highly cited works, demonstrating the impact and relevance of their findings in the scientific community.

d. Publication pattern: Source title (Journal or Proceedings)

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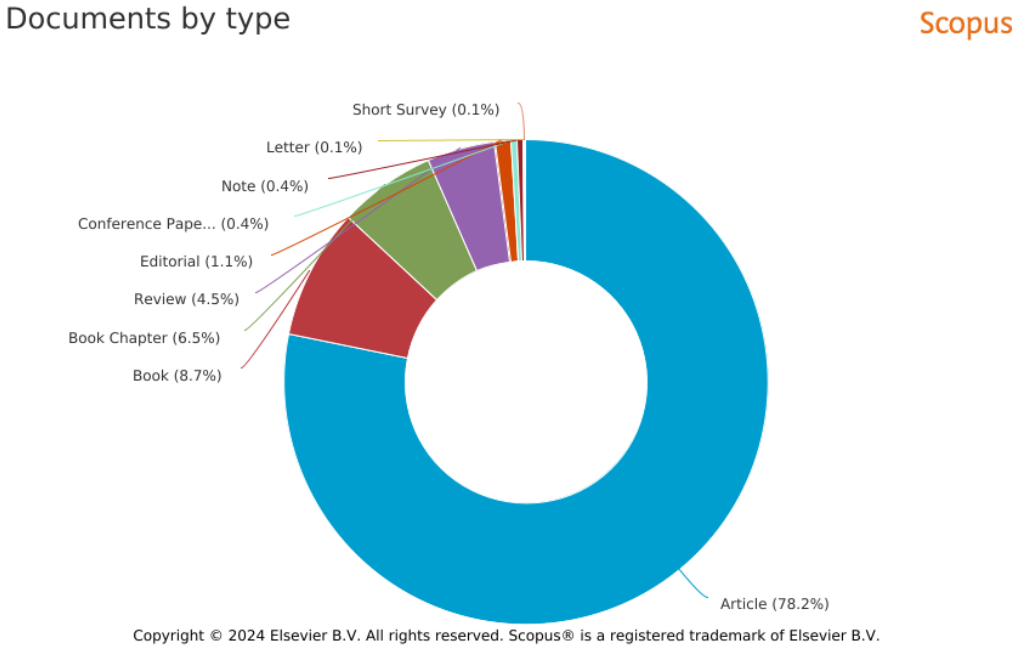

Picture 4. Documents by Type
Source: Scopus, 2024

Based on the diagram above, scientific articles dominate EL publications with a proportion of 78.2%. In addition to articles, there is a diversity of other document types used in EL research, including book chapters (6.5%), books (8.7%), reviews (4.5%), editorials (1.1%), conference papers (0.4%), short surveys (0.1%), letters (0.1%), and notes (0.4%). The diversity of these document types indicates that EL research employs various methods and approaches to generate knowledge, ranging from theoretical development and frameworks (books, book chapters) to presenting preliminary research findings or in-depth discussions of current issues (conference papers, editorials). This reflects the multidisciplinary nature of EL, allowing for exploration from various academic perspectives.

e. Visualization of Research Trends in Experiential Learning Based on VoSViewer Software

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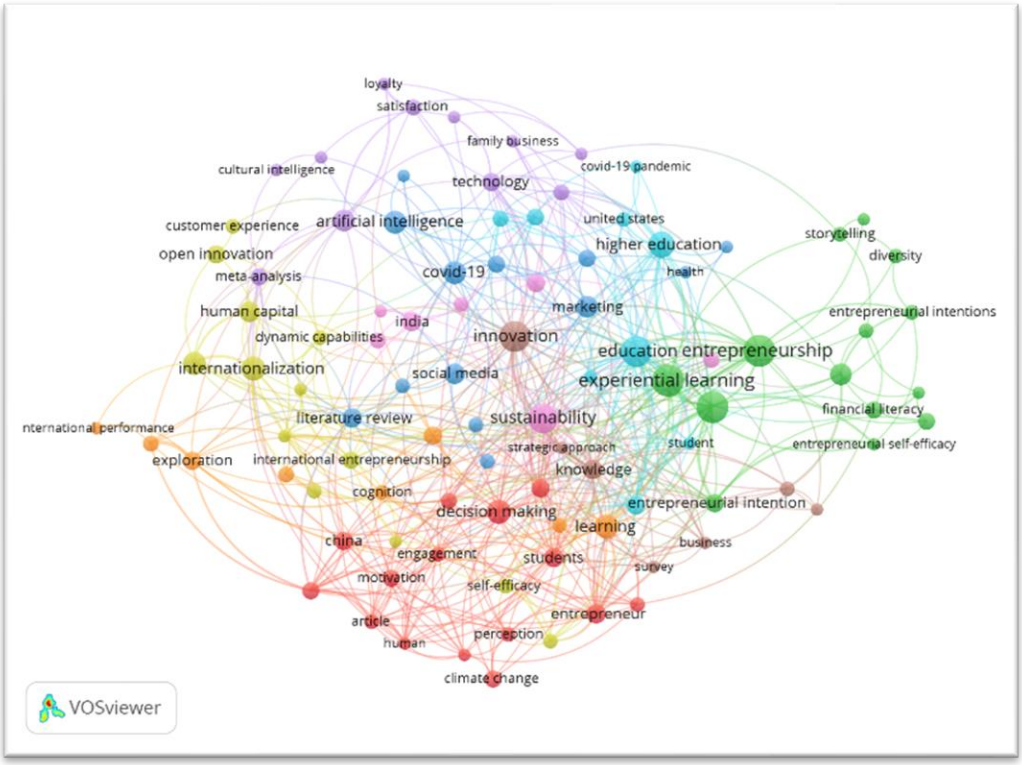

Picture 5. Visualizing *Experiential Learning (EL)* Research Trends

The visualization of experiential learning (EL) research trends with VOSviewer is divided into several clusters, each representing a different research focus. The cluster with blue nodes indicates the relationship between EL as a central concept with learning, education, and engagement. This cluster reflects the pedagogical and psychological roots of EL, highlighting its role in facilitating deep learning processes and increasing active learner participation. Then, the cluster with green nodes is related to EL software, simulations, and games. This demonstrates the adoption of technology and gamification approaches to create immersive and interactive learning experiences, which are relevant in modern educational contexts. Furthermore, the yellow cluster includes EL technology, artificial intelligence, and big data. This cluster highlights recent trends in the integration of advanced technologies to analyze, personalize, and optimize experiential learning processes. The red cluster includes the application of EL in higher education and vocational training. This cluster shows a focus on the implementation of EL in formal educational settings and professional skill development. Finally, the purple cluster includes EL pedagogy and learning theories. This underscores the theoretical foundation supporting EL practices, indicating ongoing efforts to strengthen the conceptual framework behind this learning method.

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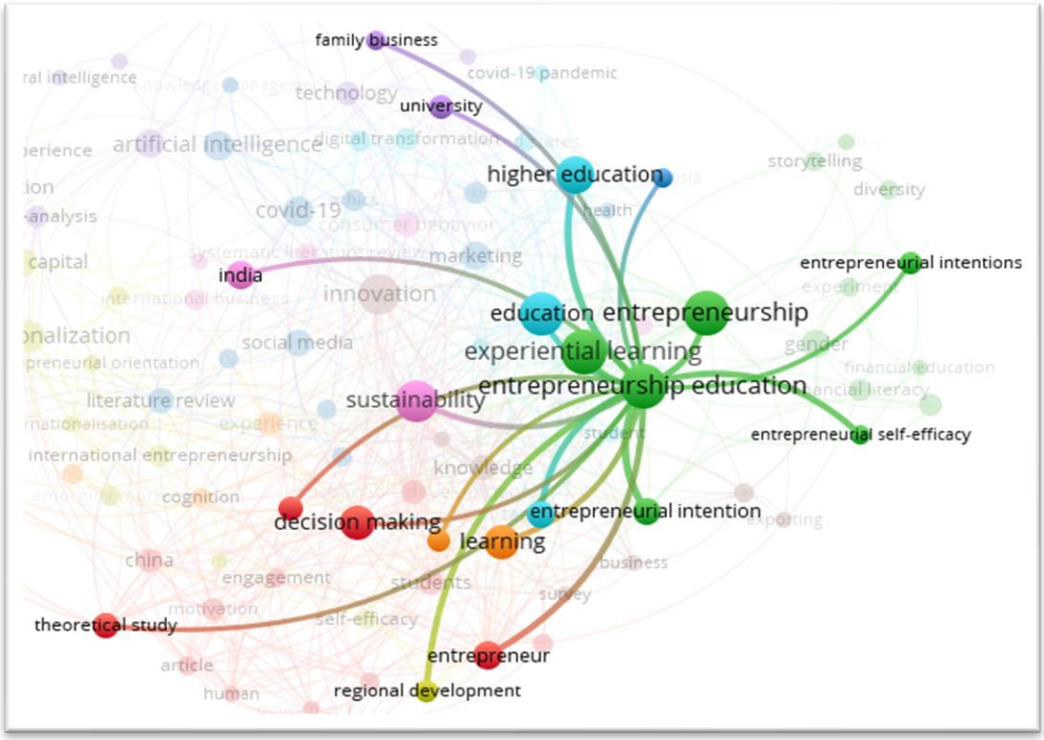

Picture 6. Visualization of EL research trends focuses on Entrepreneurship education

Based on the figure, the VosViewer network analysis shows a complex relationship between experiential learning (EL) and entrepreneurship education with other concepts relevant to the field of entrepreneurship. Experiential learning, as a teaching method, is connected to university and higher education nodes, indicating its application in an academic context (Fan & Tang, 2021). Its relationship with entrepreneurial intention shows its potential in fostering individual interest and willingness to start a business. Practically, this means that EL programs in higher education can be effectively designed not only to enhance theoretical understanding of entrepreneurship but also to directly trigger and develop students' motivation to become entrepreneurs.

Entrepreneurship education, on the other hand, is connected to social media, indicating the use of digital platforms to disseminate entrepreneurial knowledge and expertise (Bedawy & Farag, 2016). The implication is that entrepreneurship education can leverage social media as a powerful tool to reach a wider audience, facilitate networking, and provide access to resources and entrepreneurial success stories. Its connection with literature reviews and theoretical research shows the scientific basis underlying entrepreneurship education programs. This ensures that these programs are not only based on best practices but are also supported by valid theories.

Furthermore, the *experiential learning* and *entrepreneurship education* nodes are also related to decision-making and learning. This connection has significant practical

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implications: the integration of EL in entrepreneurship education directly equips individuals with the critical decision-making skills needed in dynamic business environments. Through direct experience (e.g., business simulations, internships, or startup projects), learners learn how to analyze situations, evaluate risks, and make strategic decisions under uncertainty. This is a crucial skill that cannot be fully acquired through theoretical learning alone (Winkler et al., 2023). Thus, the focus of this entrepreneurship education is to equip individuals with the essential skills and knowledge to start and run a business, transforming them from passive learners into active and competent business actors.

Conclusion

Experiential Learning (EL) research shows a significant growth trend from 2019 to 2023, with a sharp increase in 2022, reflecting a surge of interest in this field. Leading universities worldwide dominate EL publication output, with increasingly close inter-institutional collaboration patterns, enriching the depth and scope of research. Scientific articles are the primary dissemination format, affirming their role in building a strong evidence base. EL research trends are multidisciplinary, focusing on pedagogical aspects, technology integration (software, simulations, AI, big data), and its applications in higher education and vocational training. Specifically, a complex and important relationship between EL and entrepreneurship education was found, where EL plays a crucial role in fostering entrepreneurial interest, and entrepreneurship education utilizes digital platforms to disseminate entrepreneurial knowledge and skills.

These findings have important implications for future educational practice and research. The increasing interest in EL underscores the urgency for educational institutions to continue investing in the development and implementation of innovative experiential learning methodologies. Integrating EL into curricula, especially in the field of entrepreneurship, can significantly enhance critical decision-making skills and prepare individuals for real-world challenges. For research, strong collaboration patterns indicate significant potential for more in-depth interdisciplinary and cross-national studies, which can explore the effectiveness of EL in various cultural and educational contexts.

Based on this analysis, it is recommended that universities and educational institutions proactively strengthen international collaboration in EL research, given its positive impact on the quality and reach of knowledge. Furthermore, education policymakers are encouraged to integrate EL more strategically into curricula, particularly those aimed at developing entrepreneurial competencies, with adequate resource support and educator training.

Nevertheless, this study has several limitations. The data used is exclusively from the Scopus database, which may not cover the entire spectrum of EL publications available in other databases or grey literature. Additionally, this analysis focuses on quantitative publication trends and does not include an in-depth qualitative evaluation of the content or pedagogical impact of the published EL studies.

Recommendation

This study has successfully mapped the global landscape related to Experiential Learning (EL) studies in the period 2019-2023 through a bibliometric approach. In order to

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deepen and enrich the scientific treasury in this field, several recommendations for further research can be proposed. Qualitative content analysis of publications with the highest citation rates is essential to identify in more detail innovative themes, applied methodologies, and crucial findings that contribute to the increasing interest in EL. In addition, in-depth case studies on the implementation of EL outside the formal academic context, such as in the corporate or health sectors, are highly recommended. This approach is expected to be able to identify successes, challenges, and contextual factors that influence the effectiveness of EL in various environments.

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