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INNOVATIVE TEACHING STRATEGIES IN BUSINESS AND ENTREPRENEURSHIP EDUCATION: A BIBLIOMETRIC ANALYSIS

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Abstract:

Innovative teaching strategies are vital in business and entrepreneurship education, equipping learners with the skills and mindset needed to excel in today's dynamic environment. Despite growing demand, there is limited systematic analysis of existing literature to identify effective teaching innovations. This study addresses this gap by analyzing 726 scholarly works indexed in Scopus between 2014 and 2024. Using Scopus Analyzer and VOSviewer, the study examines co-authorship networks, keyword patterns, and citation trends to uncover key themes and collaboration networks. The analysis, visualized through network and density maps, highlights an increasing emphasis on experiential learning, developing entrepreneurial mindsets, and integrating digital tools into teaching practices. The keywords such as innovation, active learning, and entrepreneurship education frameworks dominate the discourse, reflecting their significance in the field. Citation trends also reveal influential works and prominent authors shaping the landscape of entrepreneurship education. The findings underscore the importance of interdisciplinary approaches and collaboration between academia and industry in fostering innovative teaching practices. Inconclusion, this study highlights pathways for future research and demonstrates the potential of bibliometric tools in identifying trends, fostering collaboration, and improving pedagogical strategies. By bridging research and practice, the insights contribute to building more impactful and future oriented educational frameworks in business and entrepreneurship education.

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Keywords:

Innovative Teaching Strategies, Business, Entrepreneurship Education

Introduction

Innovative teaching strategies in business and entrepreneurship education have become increasingly essential in the digital age. The integration of automated software, machine learning, and artificial intelligence into educational practices has shown significant promise in enhancing the learning experience. These technologies not only make the learning process more engaging for students but also help validate the feasibility of business ideas through practical, hands-on methods. For instance, the use of automated tools in entrepreneurship education allows students to test and improve their business ideas, aligning with the objectives of the Europe 2020 Strategy and the Entrepreneurship 2020 Action Plan (Mavlutova, Lešinskis, Liogys, & Hermanis, 2020). Additionally, the adoption of innovative teaching methods such as the jigsaw method, problem-solving, and simulation games has been shown to increase the effectiveness of entrepreneurship education by making it more interactive and student-centered (Kaya-Capocci, 2022; Samuel & Rahman, 2018). Moreover, the implementation of action-based and experiential learning approaches has proven to be highly effective in developing entrepreneurial competencies among students. Studies have demonstrated that students who participate in classes using innovative teaching methods report significant improvements in their entrepreneurial skills and self-assessment scores (Antonelli et al., 2023).

Techniques such as the IDEATE method, which focuses on opportunity identification through experiential learning, have been particularly successful in fostering innovative thinking among students (Cohen, Hsu, & Shinnar, 2020). Furthermore, the integration of information and communication technology (ICT) methodologies, including gamification and problem-based learning, has led to improved academic results and higher student satisfaction (García-Ruiz, Lena-Acebo, & Solana-González, 2020). These innovative strategies not only enhance the learning experience but also prepare students to navigate the complexities of the business world more effectively. The potential adoption of innovative teaching strategies in business and entrepreneurship education is crucial in developing the next generation of entrepreneurs. By leveraging digital tools and experiential learning methods, educators can create a more engaging and effective learning environment that fosters entrepreneurial skills and competencies. This approach not only aligns with global educational strategies but also addresses the evolving needs of students in the digital age.

Literature Review

Recent studies underline the importance of innovative teaching strategies in business and entrepreneurship education, particularly in driving growth in emerging markets. (Amin et al., 2020) emphasize how cultivating innovation and entrepreneurial mindsets has significantly advanced the success of female entrepreneurs in South Africa. Similarly, (Orellana Orellana, Orellana Orellana, Ortiz González, & Boza Aguirre, 2024) demonstrate how practical training has empowered vulnerable communities in Ecuador, while (Cossa, Madaleno, & Mota, 2024) llustrate the role of targeted education in building entrepreneurial resilience in Mozambique. These findings collectively highlight the importance of educational frameworks that address

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both personal and structural challenges to achieve sustainable business success. In the realm of microfinance education, (Mengstie, 2024) shows how access to microfinance services enhances financial literacy and managerial skills among entrepreneurs in Ethiopia. (Adam et al., 2024) add to this by emphasizing the role of networking and risk-taking in supporting the growth of Indonesian small and medium enterprises (SMEs). Meanwhile, (Patil, Husainy, & Hatte, 2024) reveal the potential of AI-driven tools to equip women entrepreneurs with essential business skills, demonstrating how such technologies bridge the gap between traditional educational approaches and modern entrepreneurial demands.

Despite these advancements, gaps in gender-sensitive and culturally contextualized education remain. For instance, (Maziriri, Nyagadza, & Chuchu, 2024) and (Song, Yang, & Song, 2024) advocate for curricula tailored to cultural norms and gender roles, particularly in contexts where societal expectations significantly influence entrepreneurial decisions. Similarly, (Badulescu, Saveanu, Trip, & Badulescu, 2024) stress the importance of designing educational programs that address regulatory challenges and promote collaborative strategies to ensure sustainable growth. To address these challenges, integrating practical skills such as financial literacy and digital tools into educational frameworks is essential. Studies like (Maziriri et al., 2024), (Cossa et al., 2024) and (Mengstie, 2024) argue for scalable, inclusive entrepreneurship education that caters to diverse global contexts. For example, the result by (Zheng, 2024) establishes a clear link between the quality of education and entrepreneurial success, highlighting that targeted educational interventions can predict and enhance entrepreneurial outcomes. Similarly, (Muzam & Tambi, 2024) points out that mobile money services are pivotal for fostering entrepreneurship in emerging markets, especially for SMEs. Self-regulation and proactive personality traits also emerge as critical components of entrepreneurship education. Research by (Nawaz et al., 2024) identifies these traits as key predictors of entrepreneurial intentions, suggesting that fostering adaptability and self-regulation within educational curricula can significantly enhance entrepreneurial development. Likewise, (Kumasey et al., 2024) emphasize career adaptability, driven by motivational factors such as future-oriented thinking, as a crucial element in cultivating entrepreneurial aspirations.

Behavioral skills also play a fundamental role in shaping entrepreneurial mindsets. For instance, (Nayak, Gil, Joshi, & Sreedharan, 2024) demonstrate how entrepreneurial attitudes and perceived behavioral control mediate the relationship between societal norms and entrepreneurial intentions, underscoring the importance of experiential learning. In a related study, (Strampe & Rambe, 2024) find that soft skills, such as innovative financing and venture growth strategies, significantly influence entrepreneurial readiness, indicating the need for education that goes beyond technical skills to include interpersonal and behavioral training. Gender also emerges as a critical consideration in entrepreneurship education. Studies by (Makuya & Changalima, 2024) and (Chahal, Shoukat, Massoud, & Ayoubi, 2024) reveal disparities in the impact of entrepreneurial education on different demographics. For instance, (Makuya & Changalima, 2024) highlights that male students in Tanzania exhibit stronger green entrepreneurial intentions (GEI) than their female counterparts, suggesting that current curricula may not adequately address gender-specific needs.

Similarly, (Chahal et al., 2024) point out that both gender and geographical location influence entrepreneurial intentions, particularly in a post-pandemic context, underscoring the need for inclusive, gender-sensitive educational strategies. Global perspectives further enrich

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entrepreneurship education by emphasizing contextualized learning. (Hammoda & Durst, 2024) advocate for integrating real-world case studies and narratives to bridge the gap between theoretical knowledge and practical application, particularly in digital and innovative entrepreneurship. However, there is still a lack of research on how region-specific educational content influences entrepreneurial outcomes, presenting an opportunity for future studies to explore localized approaches tailored to distinct regional challenges and opportunities. The study presents a general classification that assists the understanding that effective entrepreneurship education must integrate adaptability, behavioral skills, inclusivity, and global perspectives to meet the evolving demands of modern entrepreneurs. While current research offers valuable insights, significant gaps remain. Future studies should focus on developing gender-sensitive and culturally contextualized education, exploring the role of digital tools, and examining the long-term impacts of these innovative strategies. By addressing these areas, educators and policymakers can better equip diverse populations with the skills and knowledge necessary to thrive in the entrepreneurial landscape.

Research Questions

In this context, the research questions addressed in this study are as follows:

- What are the research trends for innovative teaching strategies in business and entrepreneur education according to the year of publication?
- Which authors have published the most highly cited articles in innovative teaching strategies for business and entrepreneurship education?
- Who writes the most cited articles?
- What are the popular keywords related to innovative teaching in business and entrepreneur education?
- What are co-authorship countries' collaboration in inovative teaching in business and entrepreneurship education?

Methodology

Bibliometrics refers to the process of collecting, managing, and analyzing scientific information from research publications (van Eck & Waltman, 2017; van Eck & Waltman, 2010; Appio, Cesaroni, & Di Minin, 2014). This approach includes basic descriptive statistics, such as identifying the journals where the studies were published, the publication dates, and key authors (Van Eck & Waltman, 2007). It also involves more complex methods, like analyzing how frequently certain documents are cited together (known as document co-citation analysis). Conducting a solid literature review requires an ongoing process of finding relevant keywords, conducting a literature search, and carefully analyzing the findings to create a comprehensive bibliography and produce reliable results (Brenner, Uebernickel, & Abrell, 2016). With this in mind, the study prioritized highly regarded publications, as they provide essential insights into the main theories shaping the research field. To ensure data accuracy, the study used the SCOPUS database for collecting information (Daniel, Costa, Pita, & Costa, 2017; Middleton & Donnellon, 2014; Kuratko & Morris, 2018). Additionally, to guarantee high-quality sources, only articles from rigorously peer-reviewed journals were selected, intentionally excluding books and lecture notes (Portuguez Castro & Gómez Zermeño, 2020). Scopus, an Elsevier database known for its extensive coverage, enabled the collection of publications ranging from 2014 to December 2024 for in-depth analysis.

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Data Search Strategy

The study employed a screening sequence to determine the search terms for article retrieval. The search strategy was initiated by querying the Scopus database with online TITLE-ABS-KEY (("entrepreneurship" OR "businessmanagement" AND "innovative" AND "teachin g") AND PUBYEAR > 2013 AND PUBYEAR < 2025)) refinement included 726 articles which were used for bibliometric analysis. As of December 2024, all articles from the Scopus database relating innovative teaching strategies focusing on Business and Entrepreneurship education were incorporated into the study.

Table 1: Search Strategy

Source	Search String
Scopus	TITLE-ABS-KEY ("entrepreneurship" OR "business management" AND "innovative" AND "teaching") AND PUBYEAR > 2013 AND PUBYEAR < 2025 AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (LANGUAGE, "English"))

Table 2: The Selection Criterion Is Searching

Criterion	Inclusion	Exclusion
Language	English	Non-English
Timeline	2014 – 2024	< 2014
Literature type	Journal (Article)	Book, Review and Proceeding

Source: (The selection criterion based on Scorpus analyzer)

Data Analysis

VOSviewer, created by Nees Jan van Eck and Ludo Waltman at Leiden University, is a popular bibliometric tool for analyzing and visualizing scientific literature (van Eck & Waltman, 2017; Appio et al., 2014). Known for its user-friendly interface and advanced features, it excels in generating network visualizations, clustering related items, and creating density maps. Researchers can analyze co-authorship, co-citation, and keyword co-occurrence to uncover research trends and connections. A key strength of VOSviewer is its ability to handle complex bibliometric data, producing detailed maps and graphs with ease. Its focus on network visualization helps identify keyword patterns and group-related items effectively. Designed for users of all experience levels, it remains relevant through regular updates. The software supports various data sources, enabling users to compute metrics, customize visuals, and analyze citation and co-authorship networks. It is an essential tool for exploring trends and insights in research fields. Datasets in PlainText format, including publication year, title, author, journal, citations, and keywords, were sourced from the Scopus database, covering 2014 to December 2024. The data was analyzed using VOSviewer version 1.6.20, which

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employs clustering and mapping techniques to create detailed visualizations. Unlike Multidimensional Scaling (MDS), which calculates similarity metrics such as cosine and Jaccard indices, VOSviewer normalizes co-occurrence frequencies using association strength (ASij) (Appio et al., 2014; van Eck & Waltman, 2010). This method ensures that the spatial arrangement of items in visual maps accurately reflects their relatedness, providing a robust alternative to traditional MDS techniques (Van Eck & Waltman, 2007):

$$ASij = \frac{Cij}{WiWj}$$

The association strength index is defined as "proportional to the ratio between, on the one hand, the observed number of co-occurrences of *i* and *j*, and on the other hand, the expected number of co-occurrences of *i* and *j* under the assumption that their co-occurrences are statistically independent" (van Eck & Waltman, 2010). Using this index, VOSviewer generates maps by minimizing the weighted sum of squared distances between all item pairs. (Appio et al., 2014) note that the LinLog/modularity normalization method is implemented in this process. Through VOSviewer's visualization techniques, mathematical relationships within the dataset were identified, enabling analyses such as keyword co-occurrence, citation analysis, and co-citation analysis. Keyword co-occurrence analysis, as described by (Xiaoxu, Yongsheng, & Jingjing, 2023), is particularly effective for tracking the development of research areas over time and identifying popular topics in various fields (Sun et al., 2014). Citation analysis, on the other hand, helps identify key research issues, trends, and techniques while also exploring the historical significance of a discipline's primary focus (Allahverdiyev & Yucesoy, 2017). Document co-citation analysis is another widely used bibliometric method (Appio et al., 2014; Fahimnia, Sarkis, & Davarzani, 2015; Liu, Yin, Liu, & Dunford, 2015). This technique generates maps that rely on network theory to uncover the structural relationships within data (Liu et al., 2015)

Results and Discussion

What Are The Research Trends For Innovative Teaching In Business And Entrepreneur Education According To The Year Of Publication?

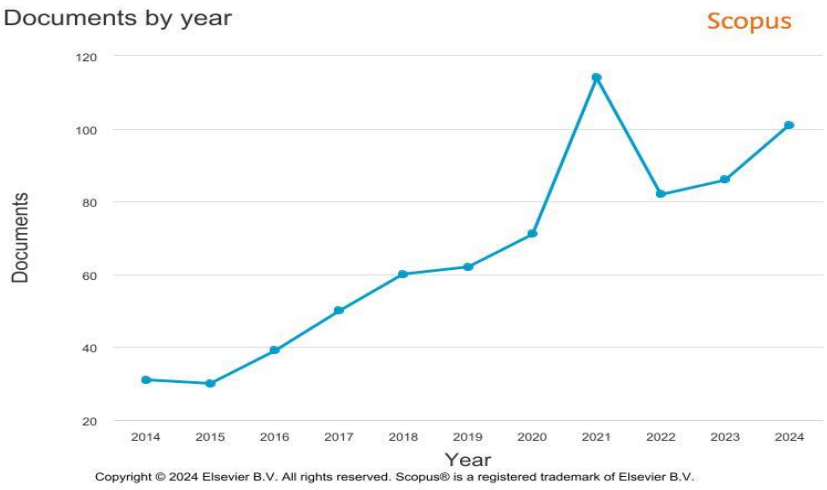

Figure 1: Annual Evolution Published Papers.

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The figure displays a steady increase in publications related to innovative teaching strategies in business and entrepreneurship education from 2014 to 2024, with a notable spike in recent years. From 2014 to 2017, the document count remains below 40, indicating limited research activity. However, starting in 2018, there is a gradual rise, reaching around 60 publications by 2019. This steady growth suggests increasing interest in innovative educational methods as the field of business and entrepreneurship education matures and responds to shifting economic and technological needs. A dramatic surge occurred from 2020 to 2021, with publications peaking above 100 documents, likely driven by the COVID-19 pandemic, which forced educators to adopt new teaching methods and accelerated research on online and hybrid learning strategies. Although there is a slight dip in 2022, the trend stabilizes and climbs again in 2023 and 2024, indicating sustained interest and possibly reflecting the long-term impacts of pandemic-driven educational innovations. Overall, this trend signifies that research in innovative teaching strategies within business and entrepreneurship education is a growing and evolving area, responding to both immediate challenges and broader shifts in educational demands.

Which Authors Have Published The Most Highly Cited Articles In Innovative Teaching For Business And Entrepreneurship Education?

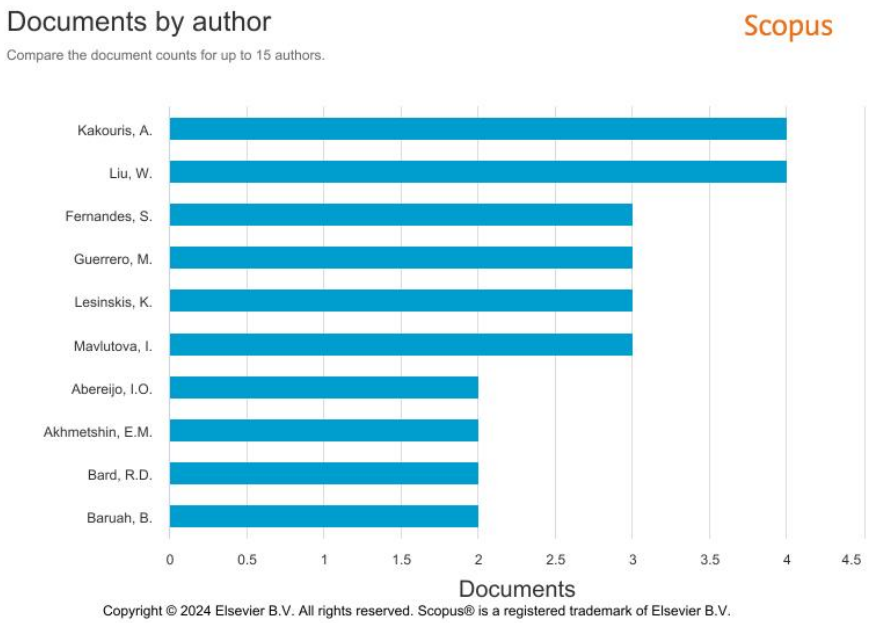

Figure 2: Distribution Chart Of Top Contributing Authors

Table 3: Top Contributing Authors

Author Name	No. of published articles	Percentage
Kakouris, A.	4	0.550964
Liu, W.	4	0.550964
Fernandes, S.	3	0.413223
Guerrero, M.	3	0.413223
Lesinskis, K.	3	0.413223
Mavlutova, I.	3	0.413223

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Abereijo, I.O.	2	0.275482
Akhmetshin, E.M.	2	0.275482
Bard, R.D.	2	0.275482
Baruah, B.	2	0.275482

Table 3 shows the publication output of authors contributing to the study of innovative teaching strategies in business and entrepreneurship education. The most prolific authors are Kakouris, A. and Liu, W., each with four publications, representing 0.55% of the total research output. Although this number may seem small, it suggests that these authors are among the few who consistently contribute to this niche area, emphasizing their commitment to advancing innovative approaches in entrepreneurship education. This focus could mean they are pioneers or recognized experts in integrating new teaching methods, such as experiential learning or digital tools, within business education.

Following Kakouris and Liu, Fernandes, S., Guerrero, M., Lesinskis, K., and Mavlutova, I., each contributing three documents, or 0.41% of the total publications. These authors may represent a second tier of active researchers who have made significant, though slightly less frequent, contributions to the field. Their work likely complements that of the leading authors by exploring specific subtopics or applying innovative methods in different educational contexts. This range of contributors highlights a collaborative landscape where multiple researchers, even with varied publication counts, contribute to a growing knowledge base on innovative teaching strategies. Finally, authors like Abereijo, I.O., Akhmetshin, E.M., Bard, R.D., and Baruah, B., each with two publications (0.28%), show a broader engagement across the field, indicating that interest in innovative teaching strategies is not limited to a few individuals. Instead, this topic has attracted a diverse group of researchers who may have interdisciplinary backgrounds, bringing fresh perspectives to entrepreneurship education. Overall, the table illustrates that while a few authors lead in publication count, there is a broader community of contributors who are collectively advancing the field by exploring, implementing, and evaluating new teaching strategies in business and entrepreneurship education.

Who Writes The Most Cited Articles?

Table 4: Top Author Based On Article Citation

Authors/Year	Article Title	Journal	Times Cited
(Brenner et al., 2016)	Design thinking as mindset, process, and toolbox: Experiences from research and teaching at the university of St.Gallen	Design Thinking for Innovation: Research and Practice	102
(Daniel et al., 2017)	Tourism Education: What about entrepreneurial skills?	Journal of Hospitality and Tourism Management	99

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(Middleton & Donnellon, 2014)	Personalizing entrepreneurial learning: A pedagogy for facilitating the know why	Entrepreneurship Research Journal	99
(Kuratko & Morris, 2018)	Corporate Entrepreneurship: A Critical Challenge for Educators and Researchers	Entrepreneurship Education and Pedagogy	91
(Castro & Zermeno, 2020)	Challenge based learning: Innovative pedagogy for sustainability through e-learning in higher education	Sustainability (Switzerland)	86
(Nielsen & Stovang, 2015)	DesUni: university entrepreneurship education through design thinking	Education and Training	76
(Jones, Matlay, Penaluna, & Penaluna, 2014)	Claiming the future of enterprise education	Education and Training	75
(Wu, Wu, & Li, 2019)	Impact of using classroom response systems on students' entrepreneurship learning experience	Computers in Human Behavior	73
(Guerrero, Heaton, & Urbano, 2021)	Building universities' intrapreneurial capabilities in the digital era: The role and impacts of Massive Open Online Courses (MOOCs)	Technovation	71
(Thrane, Blenker, Korsgaard, & Neergaard, 2016)	The promise of entrepreneurship education: Reconceptualizing the individual–opportunity nexus as a conceptual framework for entrepreneurship education	International Small Business Journal: Researching Entrepreneurship	71

The table highlights the most highly cited articles on innovative teaching strategies in business and entrepreneurship education. Topping the list is the 2016 article *Design Thinking as Mindset, Process, and Toolbox: Experiences from Research and Teaching at the University of St. Gallen*, cited 102 times. Published in *Design Thinking for Innovation: Research and Practice*, this paper underscores the significance of design thinking as a comprehensive approach that combines mindset, process, and practical tools to foster entrepreneurial skills. The high citation count reflects the impact of design thinking as an educational method, offering students a structured yet flexible framework to explore and apply creative solutions within business and entrepreneurship contexts. Another influential paper, *Tourism Education: What About Entrepreneurial Skills?*, published in 2017 in the *Journal of Hospitality and Tourism Management*, has been cited 99 times. This study questions the emphasis of tourism education on entrepreneurial skills and advocates for a curriculum that equips students with entrepreneurial competencies relevant to the hospitality and tourism sectors. The almost equal citation count of this and the top article suggests that integrating entrepreneurship into specialized fields, such as tourism, resonates strongly within academia, highlighting a growing awareness of the need for entrepreneurship skills across diverse fields. Also notable are studies

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on challenge-based learning, design thinking in university entrepreneurship (DesUni), and the use of technology, like classroom response systems and MOOCs, in enhancing entrepreneurial learning. These studies, with citation counts ranging from 71 to 86, reflect an interest in diverse pedagogical innovations that go beyond traditional lecture-based teaching. Topics like sustainability, digital learning, and enterprise education are explored, indicating a shift toward flexible, student-centered, and technology-driven approaches in entrepreneurship education. Collectively, these highly cited works underscore the trend towards experiential, technology-enhanced, and context-specific teaching strategies that aim to produce adaptable and innovative entrepreneurs.

What Are The Popular Keywords Related To The Study?

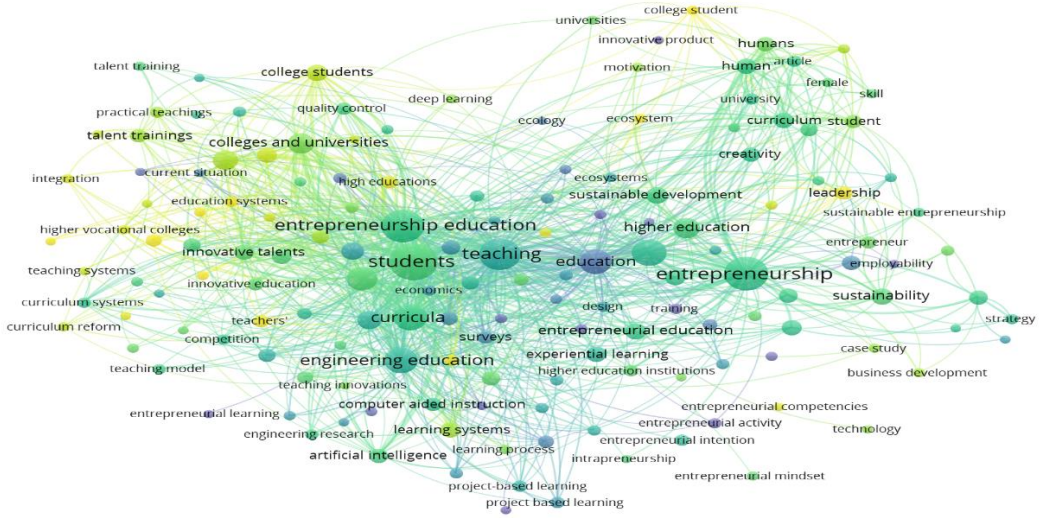

Figure 2: Keywords Co-Occurrence Overlay Visualization Map

The trending research topic, according to years, can be identified from an overlay visualization map of keywords co-occurrence analysis (Figure 2). It is observable that "students" is the most frequently occurring term (215 times) and demonstrates the highest total link strength (1242). This prominence underscores the central focus on learners in the context of entrepreneurship education, emphasizing the critical role of tailoring educational methods to student needs and experiences. Closely related terms, such as "teaching" (152 occurrences, link strength 919) and "entrepreneurship education" (160 occurrences, link strength 740), further reinforce the significance of pedagogical approaches and curriculum development aimed at fostering entrepreneurial skills and mindsets. These keywords collectively suggest that researchers are deeply invested in exploring effective teaching strategies that empower students to succeed in entrepreneurial ventures. Another significant area of interest is innovation, as reflected in keywords like "innovation" (92 occurrences, link strength 391), "innovative teaching" (18 occurrences, link strength 93), and "innovation and entrepreneurship education" (23 occurrences, link strength 121). This focus indicates a strong academic emphasis on integrating creativity, innovation, and forward-thinking methods into entrepreneurship education. Terms like "design thinking" (22 occurrences, link strength 79) and "project-based learning" (10 occurrences, link strength 64) suggest a shift toward experiential and problem-solving learning models that provide practical and impactful educational experiences. These approaches align

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with the demand for innovative teaching strategies to prepare students for the complexities of the modern entrepreneurial landscape. Additionally, keywords like "sustainability" (29 occurrences, link strength 113), "corporate social responsibility" (5 occurrences, link strength 17), and "social entrepreneurship" (19 occurrences, link strength 47) highlight the growing importance of embedding social and environmental considerations into entrepreneurship education. These themes reflect the increasing awareness of global challenges and the role of entrepreneurs in addressing them through sustainable and socially responsible practices. Together, these trends illustrate the interdisciplinary nature of entrepreneurship education research, which integrates innovation, sustainability, and technology to create robust and future-oriented learning ecosystems.

What Are Co-Authorship Countries' Collaboration?

Figure 10: Co-Authorship Countries' Collaboration Overlay Visualization Map

Figure 10 shows the countries whose authors collaborate on innovative teaching strategies, business and entrepreneurship education. The co-authorship analysis shows global collaboration in research on innovative teaching strategies in business and entrepreneurship education. The United States leads with 75 documents, 642 citations, and a total link strength of 26, highlighting its central role in fostering international research partnerships. The United Kingdom follows with 47 documents, 494 citations, and the highest link strength in Europe (22), while Germany (22 documents, 227 citations) and Spain (36 documents, 274 citations) also contribute significantly. In Asia, China dominates with 211 documents and 742 citations, though its link strength of 20 indicates limited collaboration, while India (59 documents, 111 citations) and Malaysia (14 documents, 41 citations) show steady but less collaborative efforts. Australia (9 documents, 3 link strength) and Canada (10 documents, 7 link strength) also exhibit moderate contributions. European countries such as France (165 citations, 14 link strength) and Portugal (160 citations, 10 link strength) balance impact and collaboration, while Brazil (26 documents, 92 citations, 13 link strength) and Mexico (11 documents, 157 citations, 3 link strength) highlight Latin America's role, albeit with varying collaboration levels. Overall, the data reveals a diverse yet uneven distribution of productivity, impact, and collaboration, offering opportunities to enhance partnerships, particularly between leading and emerging countries.

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Discussion and Conclusion

The analysis of research trends highlights a steady increase in publications focusing on innovative teaching strategies in business and entrepreneurship education from 2014 to 2024. During the early years, from 2014 to 2017, the number of publications remained relatively low, with fewer than 40 documents per year reflecting limited activity in this area. However, starting in 2018, a gradual rise became evident, with publications reaching approximately 60 by 2019. This upward trend suggests a growing academic interest in innovative educational approaches driven by evolving economic and technological needs. A significant spike occurred between 2020 and 2021, with annual publications exceeding 100 documents, likely influenced by the global shift toward online and hybrid learning necessitated by the COVID-19 pandemic. Although a slight decrease was observed in 2022, the publication rate stabilizes and rises again in 2023 and 2024, indicating sustained momentum and continued focus on advancing educational strategies in response to both short-term challenges and long-term pedagogical transformations. Regarding influential authors and contributions, the data highlights several key works that have significantly shaped the field, particularly those focusing on design thinking, entrepreneurial learning, and sustainability-oriented pedagogies. A small number of authors have emerged as consistent contributors to this domain, albeit with relatively modest publication counts. Collectively, these works underscore the growing emphasis on personalized learning approaches, the integration of digital tools, and innovative methods for fostering entrepreneurial skills. The field demonstrates increasing diversity in research themes and methodologies, signaling a broadening scope of inquiry aligned with the dynamic demands of modern education in business and entrepreneurship.

The analysis reveals that research on innovative teaching strategies in business and entrepreneurship education places a strong emphasis on student-centered approaches. Keywords like "students," "teaching," and "entrepreneurship education" highlight the priority of developing effective pedagogical methods that cater to learners' needs. There is a clear focus on empowering students with the skills and mindsets required to succeed in entrepreneurial ventures. Additionally, terms related to innovation, such as "innovation," "design thinking," and "project-based learning," point to the growing recognition of the importance of creativity and experiential learning in fostering entrepreneurial abilities. These findings underscore the evolving role of education in preparing students for the dynamic challenges of modern entrepreneurship. The analysis also identifies a growing interest in sustainability and social responsibility within entrepreneurship education. Keywords like "sustainability," "corporate social responsibility," and "social entrepreneurship" suggest a significant shift towards addressing global challenges through entrepreneurial initiatives. This interdisciplinary focus is complemented by the increasing integration of technology and innovative methods in curriculum development. Furthermore, the co-authorship data reveals a global collaboration pattern in this field, with the United States and China emerging as key contributors. While the research indicates strong partnerships in some regions, there are opportunities to foster greater international collaboration, particularly between developed and emerging countries, to strengthen the impact of innovative teaching strategies in business and entrepreneurship education.

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