

Hot Spots and Trends of International Higher Education Research——Visualization Analysis of the Top 14 SSCI Journals in Higher Education

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Abstract: This study has selected all the literature published in the top 14 SSCI journals between 2014 and 2023 in the field of higher education and used CiteSpace to visually analyze the data. The COVID-19 pandemic has had a huge impact on the field of education. In the post-pandemic era, research in the field of higher education has leveled off. Big data and artificial intelligence are affecting higher education and promoting the digital transformation of higher education. The focal points of the current research revolve around online learning, learning analysis and students' mental wellbeing.

Keywords: Higher education; Citespace; Visualization; Hotspots; Trends

Fund Project:

1. Science and technology research project of Henan Province: Study on learner learning behavior analysis model based on subject knowledge graph(242102320162)
2. The key topic of the special project of inheriting and developing the excellent traditional Chinese culture in Henan universities: Research on the Confucian classical educational thought and its contemporary educational value(2023-WHZX-06)
3. Major bidding subject of education science of Henan Province: Strategic research on building a strong education province in Henan ([2019]-JKGHZDZB-02)
4. The research and practice project of school-level education and teaching reform of Henan University of Economics and Law in 2024: Reform and practice of Python intelligent teaching mode in universities enabled by artificial intelligence technology
5. Undergraduate Teaching Reform Research and Practice Project of Henan University in 2022: Research on the Improvement of College Students' Autonomous Learning Ability Based on Embodied Cognition

1. Introduction

Big data, artificial intelligence and other new technologies have brought over opportunities and challenges, impacting global higher education's rapid development and reform. Over recent years, international higher education researchers, facing the challenges of the rapid development of international higher education disciplines, have been eager to gain a systematic, intuitive and comprehensive understanding of the research hotspots and future research trends of international higher education. This study aims to identify and understand the current hotspots and trends in international higher education research. It offers pertinent recommendations for policymakers, researchers, and practitioners in the field of international higher education.

2. Data sources and methods

2.1 Data sources

This study conducts comprehensive research of the top 14 SSCI journals from 2014 to July 2023, using the publishers' names and relying on data from the Web of Science (WOS) Database. A total of 9560 pieces of literature including titles, authors, abstracts,

source publications and references are statistically analysed. The selection of these journals is based on their inclusion among the top 14 SSCI source journals ranked for higher education impact in the 2022 Thomson Reuters Journal Validation Report (JCR) (as depicted in Table 1).

2.2 Methods

Citespace software is used to analyse the collected literature through visualization analysis, including bibliometrics and content analysis. The analysis framework of this study includes literature co-citation and keyword co-citation analysis, which are used to explore research topics and emerging frontiers.

Table 1 Distribution of the top 14 SSCI academic journals in higher education

Id	Journal Titles	Influence Factor (IF)	Number of Paper	Percent (%)
1	International Journal of Educational Technology in Higher Education	8.6	409	4.28
2	Internet and Higher Education	8.6	271	2.83
3	Journal of Computing in Higher Education	5.6	299	3.13
4	Active Learning in Higher Education	5.0	232	2.43
5	Higher Education	5.0	1687	17.65
6	Assessment & Evaluation in Higher Education	4.4	907	9.49
7	Studies in Higher Education	4.2	1593	16.66
8	Higher Education Research & Development	3.2	1228	12.85
9	Journal of Higher Education	3.1	398	4.16
10	Teaching in Higher Education	2.6	865	9.05
11	Journal of Higher Education Policy and Management	2.6	474	4.96
12	Journal of Diversity in Higher Education	2.4	470	4.92
13	Higher Education Quarterly	2.2	286	2.99
14	Research in Higher Education	2.1	441	4.61

Table 1 Distribution of the top 14 SSCI academic journals in higher education

3. Results

3.1 Keywords co-occurrence visualization map

In this study, the LLR algorithm (logarithmic natural rate) is used for calculation and analysis. The label words of the map (keywords from the cited literature) are obtained, cluster analysis is performed on the overall network map. Through the analysis of high-frequency label words and the cited literature, current research focuses on gender, international students, online learning, institutional selectivity, developmental education, higher education, formative assessment, and student engagement. This study discusses six of the following hotspots.

(1) Racial discrimination, sexism, and feminism. Faculty of color experiences several challenges in academia such as tokenism, marginalization, and racial microaggressions, as well as the disconnect between racial/ethnic culture and academic culture. Racial discrimination, sexism and feminism have consistently represented focal points of societal contention, and academic research on these topics has a long history. The enduring academic relevance of these issues is particularly pronounced in immigrant countries due to their multi-ethnic composition and historical factors.

(2) International student education. Internationalization is an important trend in the development of higher education, therefore cross-border education and the education of international students have garnered increased attention. In the last decade, the mobility of international students has reached new heights worldwide. There is a growing discussion about how higher education institutions can rethink their approach to connecting with international students and supporting international students to succeed. Jiani (2017) explained the decision-making process of the students through a synthesis model. There are also several findings suggested that implications highlight the need for the government to ensure high-quality education to continue attracting an increasing number of talented students from around the world.

(3) Instruction. There is a huge potential demand for high-quality online learning in colleges and universities. To meet this demand, colleges and universities have carried out a lot of research on teaching environments, teaching methods and teaching technology. Kintu et al. (2017) proposed that students' satisfaction was important in the evaluation of distance education courses as it was related to the quality of online programs and student performance.

(4) Student and teacher development. Research in student development focuses on bolstering employability, enhancing employment opportunities and advancing entrepreneurship education. Higher education institutions are increasingly concerned with the professional insertion of graduates in the labour market and with the design of institutional mechanisms to facilitate students' transition from higher education to employability. Teacher development research primarily centers on teacher identity, professional growth, advancements in teaching methods, and the enhancement of teaching skills. Englund et al. (2017) stipulated that teachers' conceptions of and approaches to teaching with technology were central to the successful implementation of educational technologies in higher education.

(5) Higher education policy and quality assurance policy. Higher education policy and quality assurance policy are important

components in the reform and development of higher education. On a broader scale, higher education policy encompasses various aspects such as reform and policies in higher education across different countries, organizational changes within universities, the digital transformation of higher education (Bond et al., 2018), system development within colleges and universities, political dynamics, and the establishment of university brands within the knowledge economy (Lomer et al., 2018). Quality is the primary guarantee for the reform and development of higher education, and the quality assurance policy of higher education mainly focuses on the internal management of colleges and universities, such as university governance, classroom satisfaction of students and teachers, classroom quality assurance, academic committee, cultural change, self-management, etc.

(6) Formative assessment and Feedback. Formative assessment and feedback play a vital role in summarizing and evaluating higher education. Within this domain, research primarily delves into educational assessment, with a focus on formative teaching assessments, encompassing self-evaluation, peer assessment, and online peer assessment. Villarroel et al. (2018) proposed that authentic assessment was found to have a positive impact on student learning, autonomy, motivation, self-regulation and metacognition. Tai et al. (2018) proposed that developing students' evaluative judgement should be a goal of higher education toward enabling students to improve their work and meet their future learning needs.

3.2 Highlight words visualization map

This study conducted a keyword burst detection analysis and got the top 15 prominent words, to explore the research trend of international higher education research. The results reveal that in the past ten years, the research theme of international higher education research has been constantly changing, and the research trend may be summarized into the following three components:

(1) Learning analytics. Technology-mediated learning is gaining prominence in higher education, and learning analytics is becoming a powerful tool for collecting and analyzing data to improve the student learning process. Learning Analytics is a vibrant and rapidly growing community. However, it still faces multiple and complex challenges, especially its impact on student learning and its implications. The continued digitization of social reality has led to the emergence of new data-based business models. This development is also reflected in the education market.

(2) Mental well-being. The growing prevalence and severity of mental health difficulties across university student populations is a critical issue that requires attention by universities and their wider communities. Baik et al. (2019) showed that academic teachers and teaching practices, student services and support, environment, culture and communication, course design, program administration, assessment, and student society activities helped improve student mental well-being.

(3) Critical race theory. Racial discrimination has always been the contradictory focus of society, and academic research on it has a long history. In the past two years, the research on racial discrimination has become active again and become a research hotspot. Bhopal (2022) indicated that academics of color experience racism in an elite universities and suggested that for academics of color to be fully included in elite universities, institutions must acknowledge racism and their privilege to work toward cultural change.

4. Conclusions and recommendations

This study makes the following recommendations for policymakers, relevant researchers, and practitioners in the field of international higher education.

Firstly, this study suggests that higher education may strengthen students' mental health education and support them in realizing their all-round development. Secondly, this study advocates blended learning and technology-based learning, such as online learning, digital learning, e-learning and other emerging learning methods, because technology-based learning can make up for the defects and deficiencies of traditional learning. It helps to improve learning efficiency and divides personalized learning and precise learning. Lastly, this study recommends that higher education places a greater emphasis on teacher professional development, with a specific focus on enhancing teachers' digital literacy and skills. Furthermore, teachers should actively engage in digital teaching research and innovative exploration of digital teaching methods and students' learning approaches.

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