

Original article

Analysing Social Determinants in Higher Education: A Bibliometric Perspective

Syahrul Jihad [©] ^{a,*} & Fadli Agus Triansyah [©] ^b

Abstract

The social environment is an integral aspect of human life, intricately woven into our existence. As social beings, humans engage in complex interactions with one another, and this social environment encompasses all facets of relationships, encompassing interactions at the individual, group, and societal levels. A bibliometric analysis was used to obtain the data from 1947 to 2023 by the Scopus database. This research aims to comprehensively analyse factors related to the social environment in higher education. The study identified six primary themes: publication trends, source-based trends, author-based trends, affiliation-based trends, country-based trends, and focus study. This study found the resurgence of interest in the literature on the social environment in higher education, with a notable peak in 2023. Furthermore, the increasing attention reflects a growing acknowledgment of the importance of understanding social dynamics within higher education institutions. Several influential journals also have emerged as platforms for disseminating research on this topic, with authorship patterns indicating consistent and diverse contributions from researchers. Collaborative efforts across institutions have been emphasized, with leading roles played by various institutions. Geographical trends highlight the significance of several countries indicating a global shared concern for social environment issues. Subject area analysis reveals a prevalence of social sciences and psychology, showcasing the diverse dimensions of research in this field. The focused study reveals a holistic approach, encompassing academic, social, and psychological dimensions, offering valuable insights for future research directions.

 $\textbf{Keywords:} \ \mathsf{Social} \ \mathsf{Environment}, \ \mathsf{Higher} \ \mathsf{Education}, \ \mathsf{Bibliometric}.$

Received: 19 November 2023 * **Accepted:** 21 December 2023 * **DOI:** https://doi.org/10.29329/jeps.2023.633.1

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INTRODUCTION

The social environment is an inseparable dimension of human life (Español & Marsico, 2021; Van Egmond & de Vries, 2011). Humans, as social creatures, live in complex interactions with others. The social environment includes all aspects of relationships between individuals, groups and society at large (Rehman et al., 2021). As time has progressed, the social environment has grown more dynamic and intricate, mirroring shifts in values, norms, and social structures (Few et al., 2021; Geels, 2004). Human social existence is influenced by diverse factors like culture, economy, politics, and technology. These dynamics play a significant role in shaping behaviour patterns, interactions, and the development of individual social identities (Smaldino, 2019). In the era of globalisation, which progressively interconnects the entire world, the social environment extends beyond local or national boundaries, encompassing global aspects that impact how humans interact and coexist (Liu et al., 2021).

The importance of understanding the social environment lies not only at the individual level, but also with regard to the development of society as a whole (Ansari et al., 2012). Changes in the social environment can trigger major transformations in public policies, economic structures and political dynamics (Otto et al., 2020). Therefore, maintaining the balance and sustainability of the social environment is a crucial challenge in the effort to improve the quality of life and welfare of society. The social environment greatly influences the personality of each individual at every level of education from primary to higher education (Antonio, 2004). The social environment in the context of higher education plays a very significant role in shaping students' academic experiences and personal development. Higher education is often a place where individuals from different social, cultural and economic backgrounds meet and interact (Jayakumar, 2008; Jongbloed et al., 2008). These interactions create a heterogeneous environment, where students can learn not only from the formal curriculum, but also through the exchange of ideas, values, and experiences with others. This diversity creates opportunities to broaden perspectives, enhance cross-cultural understanding, and develop interpersonal skills essential for life in a global society.

Numerous prior studies have meticulously examined and assessed the influence of the social environment on higher education students. These investigations encompass a broad spectrum of facets, delving into the effects of interactions with peers and instructors, as well as the overall impact of the higher education setting on students' academic and non-academic development. In Gao (2021) study, two primary factors contributing to the commercialisation of higher education are identified, along with an exploration of three threats posed to the social and academic environment as a consequence of the marketing of higher education. On the other hand, Kethüda (2021) research offers evidence supporting the notion that both the social environment and teaching excellence exert notable direct effects on university image and student satisfaction.

Although numerous studies have explored the social environment in higher education, there remains a notable gap in the literature regarding in-depth examination of the factors influencing the social environment. Recognizing the significance of addressing this gap, conducting in-depth studies becomes imperative, and one effective approach to achieve this is through bibliometric analysis. Bibliometric analysis is a research method that involves the quantitative analysis of academic publications, providing insights into the structure and patterns of research within a particular field (Aparicio et al., 2019; Donthu et al., 2021; Hossain et al., 2020; Skute et al., 2019; Triansyah, Mitayana, et al., 2023; Triansyah, Muhammad, et al., 2023). In the context of higher education's social environment, bibliometric analysis can involve scrutinizing a vast array of scholarly articles, research papers, and publications related to social aspects within educational institutions. This method allows researchers to identify key themes, recurring topics, influential authors, and the evolution of research trends over time (Chen et al., 2019; de Oliveira et al., 2019; Nicolas et al., 2020; Ramírez et al., 2019). By examining citation patterns and co-authorship networks, bibliometric analysis helps to map the intellectual structure of the field, highlighting the interconnectedness of various research strands.

This research aims to conduct a thorough analysis of factors associated with the social environment in higher education through the utilisation of bibliometric analysis. The methodology involves using bibliometric analysis to investigate and assess scientific literature published within a specific timeframe concerning the social environment in higher education institutions. Through the collection and analysis of data from articles, books, and other scholarly publications, the study aims to examine the evolution, trends, and patterns of research within the realm of the social environment in the higher education context.

MATERIALS and METHODS

In obtaining data sources related to the "social environment in higher education", the Scopus database was employed due to its extensive interdisciplinary coverage. The methodology involves utilising bibliometric analysis to examine and assess the scientific literature published within a specific timeframe (Donthu, et al, 2021) that pertains to the social environment within higher education institutions.

The process of refining the collected data, depicted in Figure 1, involves several steps; The initial stage is identification, followed by screening, eligibility, and inclusion steps. At the point of inclusion, a total of 91 publications spanning the years 1947 to 2023 have been obtained. These selected publications will undergo a thorough analysis, exploring various aspects in detail. The following is a data collection procedure as proposed by Moher et al. (2009).

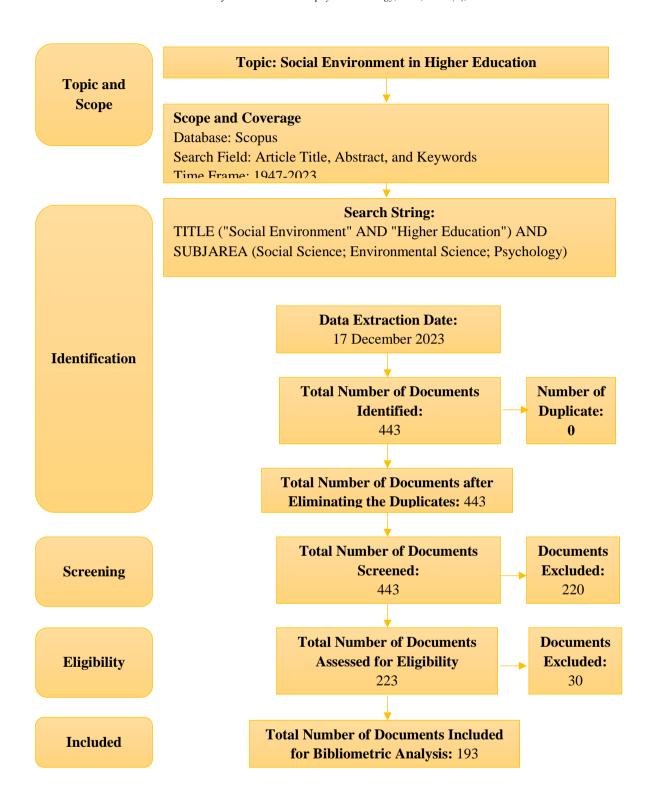


Figure 1. The data collection procedure

The second stage, screening, involves the selection of publications based on the required language and document type. English is the chosen language as it aligns with the researcher's needs, being the predominant international language in scientific communication. This research specifically considers articles and books as the required document types. Following the screening process, 220 publications were excluded from the dataset as they did not meet the specified criteria, leaving a total of 223 publications.

In the third stage, the eligibility of 223 publications is assessed. Researchers manually scrutinised titles and abstracts to determine which publications met the inclusion criteria, specifically focusing on research that addressed the social environment in higher education. Only publications that aligned with these criteria were included in the analysis for the research discussion. By the conclusion of this stage, 30 publications were excluded as they did not involve the social environment in higher education, resulting in a remaining total of 193 publications. The objective of this study is to examine the trends and landscape of research related to the social environment in higher education, and thus, all 193 publications are included to ensure the objectivity of the interpretation results. This data was retrieved on December 17, 2023, during the inclusion stage.

Descriptive analysis of the trend in publications concerning the social environment in higher education is conducted using bibliometric analysis based on data extracted from the Scopus database. The number of publications and the linear trend of publications for each year spanning from 1947 to 2023 will be visually represented in a graph. This graphical representation will be created using Microsoft Excel software, aided by the VOSviewer application to enhance visualization and analysis.

RESULTS and DISCUSSION

This study aims to conduct a comprehensive analysis of factors associated with the social environment in higher education. There are six themes that can be found in this study, namely trend publication, trend by source, trend by author, trend by affiliation, trend by country, and focus study. Those themes will be explored further in the following section.

Trend Publication

Figure 2 illustrates the publication trend over the years, spanning from 1947 to 2023. As can be seen in the following graph, it is evident that the initial document emerged in the 1940s, pinpointing the inception of this study in 1947. Subsequently, from the 1960s to the 1990s, there was a notable decline in popularity, as reflected in the limited number of documents published during this period. Notably, in the 2000s, there was a gradual increase in publication trends, steadily rising from 2009 onwards and reaching a peak in 2023. In the latter year, 20 articles pertaining to the social environment in higher education were published, indicating the peak of this study's trend. Hence, it can be concluded that the trend of this study began rising in the 2000s and the highest publication is in 2023.

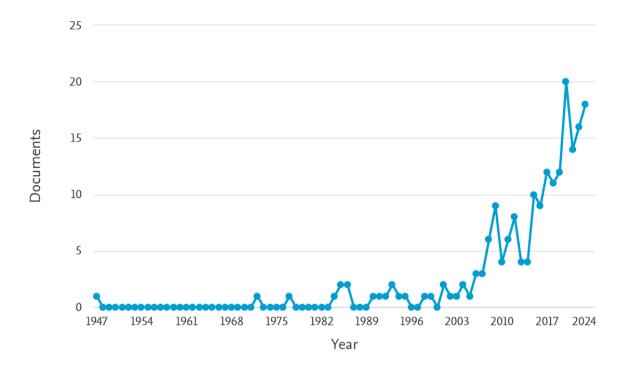


Figure 2. Trend publication by year

Trend by Source

The term Social Environment in Higher Education was published in various journals. The VOSviewer application is used to examine pairs of journal bibliographies. Subsequently, the journals based on the number of documents were analysed, and were presented in the following table from the highest to the lowest document count:

Table 1. Documents by source

Source	Documents
Higher Education	5
British Journal of Educational Psychology	4
Frontiers of Education in China	4
International Journal of Sustainability in Higher Education	3
Journal Of College Student Retention Research Theory and Practice	3
Journal Of Diversity in Higher Education	3
Studies In Higher Education	3
Education And Training	2
Frontiers In Psychology	2
International Journal of Technology Management and Sustainable Development	2
Journal Of Dental Education	2
Journal Of Further and Higher Education	2
Journal Of Higher Education Policy and Management	2
Journal Of Youth Studies	2
Scandinavian Journal of Disability Research	2
Scandinavian Journal of Psychology	2

Sustainability Switzerland	2
AIDS Care	1
Active Learning in Higher Education	1
Addictive Behaviours	1
Adolescence	1
Adult Education Quarterly	1
Agenda	1
American Journal of Human Biology	1
Appetite	1
Asia Pacific Journal of Education	1
Asian Association of Open Universities Journal	1
Astra Salvensis	1
Autism	1
Autism In Adulthood	1
Child Abuse and Neglect	1
Child Care In Practice	1
Child Development	1
Children And Schools	1
Chinese Education and Society	1
Christian Higher Education	1
Communications In Information Literacy	1
Computer Science Education	1
Computers In Human Behavior	1
Corvinus Journal of Sociology and Social Policy	1
Creativity Studies	1
Cypriot Journal of Educational Sciences	1
Demography	1
Developmental Psychology	1
Didactica Slovenica Pedagoska Obzorja	1
Digital Geography and Society	1
Disability And Society	1
Drugs Education Prevention and Policy	1
Education And Training in Developmental Disabilities	1
Education And Urban Society	1
Education Sciences	1
Educational Process International Journal	1
Educational Research and Evaluation	1
European Journal of Contemporary Education	1
European Journal of Higher Education	1
European Journal of Investigation in Health Psychology and Education	1
European Journal of Psychology of Education	1
European Journal of Psychology Open	1
Gender And Education	1
Gender Medicine	1
High Ability Studies	1
Higher Education Quarterly	1
History Of Psychology	1

Hrvatska Revija Za Rehabilitacijska Istrazivanja
Hse Social and Education History 1
Industry And Higher Education 1
Information Communication and Society 1
Innovations In Education and Teaching International
Instructional Science 1
Intangible Capital 1
International Journal of Aging and Human Development 1
International Journal of Comparative Education and Development 1
International Journal of Continuing Engineering Education and Lifelong Learning 1
International Journal of Educational Management 1
International Journal of Educational Technology in Higher Education 1
International Journal of Engineering Education 1
International Journal of Mechanical Engineering Education 1
International Journal of Media and Information Literacy 1
International Journal of Pedagogy and Curriculum 1
International Journal of Psychology 1
International Journal of Sport Policy and Politics
International Social Science Journal
Internet And Higher Education 1
Journal For Critical Education Policy Studies 1
Journal Of Adult Development 1
Journal Of Aging and Health
Journal Of Black Studies 1
Journal Of Child Psychology and Psychiatry
Journal Of Deaf Studies and Deaf Education 1
Journal Of Developmental and Behavioral Pediatrics
Journal Of Education and Health Promotion 1
Journal Of Entrepreneurship Education 1
Journal Of Ethnic and Migration Studies 1
Journal Of Evidence Based Social Work United States
Journal Of Gambling Studies 1
Journal Of General Psychology 1
Journal Of Health and Social Behavior
Journal Of Homosexuality 1
Journal Of Hospitality Leisure Sport and Tourism Education 1
Journal Of Information and Organizational Sciences
Journal Of International Education in Business 1
Journal Of International Women S Studies 1
Journal Of Interpersonal Violence 1
Journal Of Learning Disabilities 1
Journal Of Marriage and Family
Journal Of Muslim Minority Affairs
Journal Of Positive Psychology 1
Journal Of Racial and Ethnic Health Disparities
Journal Of Research on Adolescence
Journal Of Siberian Federal University Humanities and Social Sciences 1

Journal Of Social Psychology 1
Journal Of Studies in International Education 1
Journal Of Substance Use
Journal Of the Association for Information Science and Technology 1
Journal Of Urban Health
Journal Of Vocational Education and Training
Journal Of Youth and Adolescence
Kuram Ve Uygulamada Egitim Bilimleri 1
Learning And Individual Differences 1
Learning And Instruction 1
Learning Media and Technology 1
Library Management 1
Nurse Education Today 1
Opcion 1
Pedagogika 1
Perspectives In Education 1
Pertanika Journal of Social Sciences and Humanities
Portal 1
Problems And Perspectives in Management 1
Psychological Science 1
Psychology Of Men and Masculinity 1
Public Integrity 1
Public Money and Management 1
Qualitative Report 1
Rehabilitation Counseling Bulletin 1
Res Militaris 1
Research In Higher Education 1
Review Of International Geographical Education Online
Rusc Universities and Knowledge Society Journal
School Psychology Quarterly 1
Science And Innovation 1
Social Indicators Research
Social Psychology of Education 1
Social Science and Medicine 1
Social Sciences Pakistan 1 Social Work Education 1
Sociology Of Education 1 South African Journal of Education 1
Southern African Linguistics and Applied Language Studies 1 Space And Culture India 1
Spanish Journal of Psychology 1 Sport Education and Society 1
Sport Education and Society 1 Sam Population Health
Ssm Population Health Substance Use and Misuse 1
Teaching Education 1 Teaching Public Administration 1
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Tertiary Education and Management 1

Thinking Skills and Creativity	1
Turkish Online Journal of Distance Education	1
Urban Review	1

In terms of trend documents by source, Table 2 shows the pattern of journals featuring the most significant number of documents on the social environment in higher education. As can be seen in Table 2, Higher Education journal holds the highest position with 5 documents, followed by the British Journal of Educational Psychology and Frontiers of Education in China, each having published 4 documents. This suggests a potential focus on publications related to the social environment within these journals. The information proves valuable for future researchers considering these journals for the dissemination of their research on this subject.

This information proves to be particularly valuable for prospective researchers contemplating the dissemination of their work in this field. By highlighting the journals that have demonstrated a consistent commitment to publishing research on the social environment in higher education, it offers valuable guidance for scholars seeking an appropriate platform for sharing their insights. Researchers can leverage this data to strategically target journals that have shown a propensity for hosting scholarly discourse on the subject, enhancing the visibility and impact of their contributions within the academic community.

Trend by Author

Patterns in authorship data concerning the social environment in higher education reveal substantial contributions from various researchers who prominently feature in the related literature. This suggests an ongoing and noteworthy involvement of these scholars in shaping and influencing the discourse on social aspects in the higher education landscape.

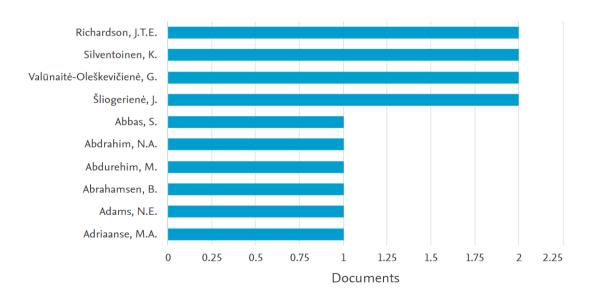


Figure 3. Documents by Author

Richardson, J.T.E. (2004, 2006), Silventoinen, K. (2004), Valūnaitė-Oleškevičienė, G.(2017), and Šliogerienė, J. (2017) respectively recorded two documents, signifying their activity and contribution in contributing knowledge related to the social environment in higher education. With more than one document, it can be considered that they have had a consistent and profound impact in the context of this study. Abbas, S. (in Tan et al. 2023), Abdrahim, N.A. (in Han & Abrahin, 2023), Abdurehim, M. (2015), Abrahamsen, B. (in Orupabo et al, 2020), Adams, N.E. (2016), and Adriaanse, M.A (in Verhoeven et al., 2015) each listed one document. Although their contribution is only one, their presence reflects the diversity of research within the scope of social environments in higher education. Each author makes a unique contribution, demonstrating that multiple perspectives and research methods are recognized and valued in this literature. By looking at these trends in author data, it can be concluded that there are several researchers who are actively involved in social environment research in higher education. The diversity of authors and their contributions provides a comprehensive picture of the development of knowledge in this area. These results can serve as a basis for identifying future research directions and understanding the contribution of these studies in developing an understanding of the social environment in higher education institutions.

Trend by Affiliation

Analysis of the trend data on author affiliations in writing about the social environment in higher education revealed several institutions that play an important role in this research.

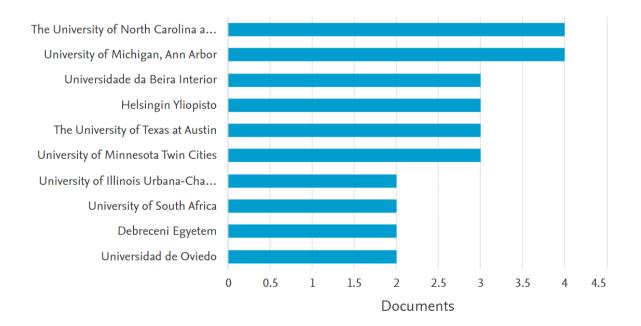


Figure 4. Documents by affiliation

The University of North Carolina at Chapel Hill and the University of Michigan, Ann Arbor, recorded four documents respectively, indicating that these two universities have made significant contributions to the literature on social environments in higher education institutions. Their consistent

presence indicates a strong role in formulating and disseminating knowledge in this area. Universidade da Beira Interior, Helsingin Yliopisto, The University of Texas at Austin, and University of Minnesota Twin Cities have three documents each. These four institutions are also instrumental in engaging with research on social environments in higher education, suggesting that this research involves cooperation and collaboration across institutions. They were followed by the University of Illinois Urbana-Champaign, University of South Africa, Debreceni Egyetem, and Universidad de Oviedo with two documents each. Although their contributions are not as numerous as the former, their presence still reflects consistent engagement and support for research in this area.

Overall, through the analysis of author affiliations, it can be concluded that several institutions, particularly The University of North Carolina at Chapel Hill and the University of Michigan, Ann Arbor, play a leading role in formulating knowledge about the social environment in higher education. The diversity of institutions involved demonstrates the importance of cross-institutional collaboration in developing an understanding of the social environment in higher education institutions globally.

Trend by Country

Figure 5 displays the geographical distribution of countries, discerned from the origins of authors who have published documents pertaining to the social environment in higher education from the years 1947 to 2023.

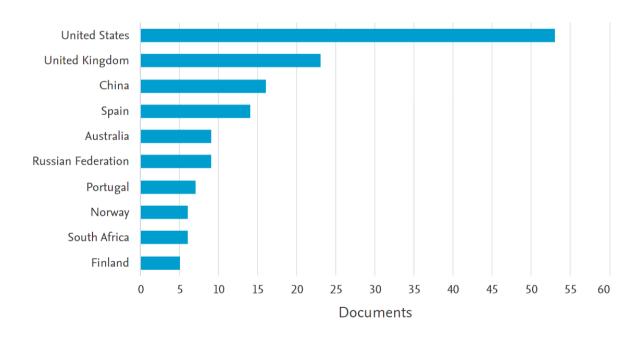


Figure 5. Documents by country

As can be seen from Figure 5 above, the United States takes the lead with the highest number of publications, totalling 54, followed by the United Kingdom with 24 documents. The third position is in China from the Asian continent, contributing a total of 16 publications. Meanwhile, countries like Spain,

Australia, Russian Federation, Portugal, Norway, South Africa, and Finland have published no more than 15 documents each. This suggests that the US, the UK, and China were concerned about the social environment issue.

The figure offers insights into the global participation and evolution of research in this field over time, highlighting potential shifts in focus across regions and the emergence of new contributors on the international stage. The comprehensive timeline covered in the analysis allows for a nuanced understanding of the dynamic and collaborative dimensions inherent in exploring social dynamics within higher education on a global scale.

Trend by Subject Area

Analysis of the trend data by subject area in writing about the social environment in higher education showed that social science disciplines dominated, with 170 related documents. This reflects the great focus and attention to social aspects in the context of higher education. The findings illustrate that research in this area is not only concerned with academic aspects, but also understanding and exploring the social dimensions that influence the student experience and the atmosphere of higher education institutions more broadly.

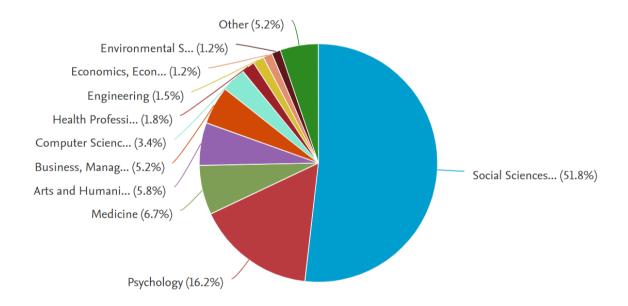


Figure 6. Documents by subject area

Psychology subjects listed 53 documents, indicating significant interest in understanding psychological aspects in the context of social environments in higher education. This research may involve aspects such as social adaptation, mental well-being of college students, and the dynamics of relationships between individuals in an academic environment. Medicine, Arts and Humanities, and Business, Management, and Accounting recorded significant numbers of 22, 19, and 17 documents

respectively. The presence of these various subject areas signifies the multidisciplinary approach and complexity of social environmental issues in higher education. Several other subject areas such as Computer Science, Health Professions, Engineering, and Economics, Econometrics, and Finance also contributed, albeit in smaller proportions. These findings reflect interdisciplinary collaboration and cross-border research in understanding the dynamics of the social environment in higher education institutions.

Overall, the interpretation of the subject area trend data shows that research on the social environment in higher education involves a wide range of disciplines, reflecting the complexity and diversity of factors that influence the student experience and the dynamics of higher education institutions.

Focus Study

Analysis of the study focus based on keywords in the research shows that research on the social environment in higher education covers various aspects and dimensions. Several keywords appear with high frequency and are worth noting to understand the direction and urgency of research in this area.

Table 2. Focus study

Keyword	Occurrences	Total Link Strength
academic achievement	6	72
academic success	5	34
adolescent	21	254
adult	26	342
age	5	61
aged	8	99
article	42	487
attitude	5	65
child	10	106
comparative study	6	88
controlled study	13	151
cultural factor	5	66
education	24	201
educational status	14	180
employment	6	51
ethnic group	5	52
family	5	55
female	43	527
higher education	65	136
human	55	608
human experiment	12	149
humans	36	453
learning	5	55
longitudinal study	6	93

major clinical study	7	93
male	41	504
middle aged	8	108
motivation	11	133
perception	10	139
psychological aspect	8	108
psychology	15	188
questionnaire	12	166
questionnaires	7	100
self-concept	5	67
social behavior	6	84
social class	7	83
social environment	58	592
social media	5	21
socioeconomic factors	5	63
socioeconomics	5	59
student	23	266
students	25	258
teaching	8	74
tertiary education	5	55
united states	11	136
universities	21	215
university	23	251
workplace	5	57
young adult	9	127

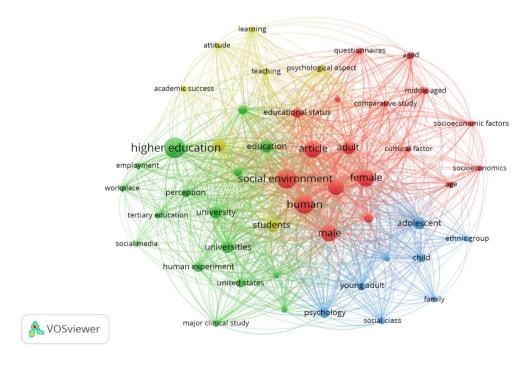


Figure 7. Focus study

In terms of frequency of occurrence, some of the most dominant keywords involve the academic and social aspects of students. "Social environment" appeared 58 times with a total link strength of 592, indicating that attention to the impact of the social environment in higher education institutions was strongly emphasized in the study. The terms "higher education" and "university" appear 65 and 23 times respectively, indicating that the focus of this research is not only on higher education in general but also on the specific influence of the university environment.

In the social context, keywords such as "adolescent," "adult," "family," and "student" also appeared with significant frequency, reflecting the diversity of demographics and age groups that were the focus of the research. In addition, the keywords "social class", "socioeconomic factors" and "socioeconomics" indicate the importance of economic and social class aspects in understanding the social environment in higher education.

Keywords related to psychological factors such as "motivation", "perception", "psychological aspect", and "self-concept" also received attention in this literature, indicating that this research focuses not only on the social dimension but also the psychological aspects of individuals. Given the repeated occurrence of keywords such as "human", "humans", and "article" it can be inferred that this literature is multidisciplinary and involves a variety of research methods, including human experiments, clinical studies, and article-based research.

Overall, the analysis of the study focus suggests that research on the social environment in higher education is holistic, encompassing a range of academic, social, and psychological dimensions. A deep understanding of these factors can make a valuable contribution to improving the quality of the student experience in higher education institutions.

CONCLUSION

In conclusion, the analysis of the social environment in higher education, utilising the bibliometric methods spanning nearly eight decades, provides a comprehensive overview of key trends, contributors, and thematic focuses in this field.

The resurgence in publication trends since the 2000s, reaching a peak in 2023, indicates a growing interest and recognition of the importance of understanding the social dynamics within higher education. The identification of key journals such as Higher Education, British Journal of Educational Psychology, and Frontiers of Education in China underscores the significance of specific platforms in disseminating research findings.

The active involvement of researchers (Richardson, 2004, 2006; Silventoinen, 2004; Valūnaitė-Oleškevičienė, 2017; Šliogerienė, 2017) reflects a diverse and sustained engagement in shaping the discourse on social aspects in higher education (see Figure 3). Furthermore, the pivotal roles played by institutions like The University of North Carolina at Chapel Hill and the University of Michigan, Ann

Arbor, emphasise the importance of collaborative efforts across institutions in addressing social environment issues on a global scale.

Geographical trends highlight the leading roles of the United States, the United Kingdom, and China in shaping discussions on the social environment in higher education. Afterwards, the subject area analysis reveals the dominance of social sciences and psychology, emphasizing the multidisciplinary nature of research that covers a wide range of aspects, from academic achievement to psychological factors. The focus analysis demonstrates a holistic approach, incorporating academic, social, and psychological dimensions, contributing to a nuanced understanding of the profound impact of the social environment on higher education.

In essence, this study is expected to not only provides valuable insights into the historical development of research in this field but also offers a foundation for future exploration and collaboration in understanding and enhancing the social environment within higher education institutions worldwide.

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