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The Application of Coaching in Education: The Bibliometric Analysis of the Emerging Trend

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Abstract

The study aims to assess the trend of coaching application in education using bibliometric analysis. The objectives of the study are to analyze the interaction of coaching and education over a period of time, to research the distribution of this concept and related keywords, using the capabilities of the Scopus database and the VosViewer program. The application of coaching in education is beneficial for achieving the Sustainable Development Goal (SDG) 4 "Quality Education" and overall sustainability of the education process. The study analyzes how the annual grow of the publications is related to the events that have taken place during peak years. Most popular journals have been examined. Most cited papers have been researched, and content of each has been examined thoroughly. A Vosviewer Coauthorship visualization mapping for countries has been performed. Then, the co-occurrence has been selected as a method of analysis, and all keywords have been analyzed thoroughly.

Keywords: Bibliometrics, coaching, education, SDG 4, sustainability.

Introduction

The study assesses the trend of coaching methodology development in education using a bibliometric analysis. Coming from the sports industry, coaching is consistently gaining momentum, being introduced into various areas of our lives. It is an excellent applied tool that also significantly expands the possibilities of modern education. The study aims to analyze the interaction of coaching and education over time, to research the distribution of this concept and related keywords, using the capabilities of the Scopus scientometric database and the VosViewer program. The application of coaching in modern education is essential for several reasons: it provides aspects of personalized learning,

encourages self-directed studies, enhances critical thinking, problem-solving, and emotional intelligence. These skills are crucial for preparing students for the demands of the 21st-century workforce, where soft skills as well as adaptability are highly valued. The application of coaching in education is beneficial for the achievement of the Sustainable Development Goal (SDG) 4 "Quality Education" and overall sustainability of the education process.

Literature Review

Coaching has been evolving as a form of professional development for teachers and students for many years. According to Van Nieuwerburgh (2019), coaching is a conversational activity that aims to support people to learn and develop, thereby enhancing their ability to achieve more of their untapped potential. Academic research on the application of coaching in education is continuing. Zepeda and Ponticell (2019) described how the educational process changed when the coaching principles were introduced: teachers became much more positive towards learners, the range of teaching strategies increased, feelings about the colleagues became very positive; therefore, their working environment was improved. It should be noted that the attractiveness factors of workplace environment are essential in thinking of, developing and accepting sustainable attitude, sustainable education, and sustainable development in everyday life (Kravale-Paulina et al., 2023).

What teacher do we want to see in our schools today and in the future? The self-explanatory answer would be just a good teacher (Pipere et al., 2022). Coaching can significantly contribute to the development of a teacher by enhancing their continuous professional development, by raising their emotional intelligence, thus ensuring a well-being state, by leading to an increase in adaptability, innovation, collaboration, and leadership. When coaching is integrated into teacher development, educators become more reflective, adaptable, and effective leaders, embodying the prerequisites of a "good teacher" both now and in the future (Crowther et al., 2008).

There is increasing recognition that large-scale educational reforms are necessary to address the demands of the 21st century. Recent discussions and studies have focused on the role coaching can play in these transformative efforts (Devine et al., 2013). Introduction of coaching principles into the education process can enhance its sustainability. It fosters lifelong learning, empowers teachers, supports emotional and social well-being, personalizes learning, and leads to the continuous improvement and innovation of the overall education process. Education for sustainability is one of the key contributors to achieving the goal of sustainability (Gavinola et al., 2022). Jermolajeva and Trusina (2022) state that the role of education, both formal and non-formal, is shaping an individual's understanding and attitudes toward sustainability by fostering an interdisciplinary approach. This idea is closely connected to coaching in

education through several key principles:

1. coaching, like an interdisciplinary education tool, encourages a holistic approach by integrating economic, social, and ecological dimensions of sustainability (Potrac et al., 2000);
2. coaching methodologies focus on developing critical thinking, which is crucial in addressing sustainability challenges (Kasch et al., 2022);
3. coaching encourages lifelong learning and adaptability (Bareviciute et al., 2023);
4. coaching empowers learners to take their action in their education, by developing their competences and skills (Van der Baan et al., 2024).

Dias et al. (2022) stress that competences play a fundamental role in transforming the behavior of individuals, being a possible prerequisite for transition towards SDGs. Course curricula, improved with the application of coaching methodology, are pointed out as a favorable context for the implementation of competences focused on the SDGs. This is because teaching practices are updated, and the way students start thinking leads to significant changes in organizations worldwide (Weybrecht, 2017).

Still, coaching remains under-researched because few higher education institutions have, as yet, become involved in the coaching practices (Fletcher & Mullen, 2012). Education reform is a continuous and sustainable development process; nevertheless, it remains to be seen that in many countries, the sustainable development of education is still unrealized (Meesuk & Wangaewhiran, 2021).

Research Methodology

To meet the aim of the study, the researchers systematically employed appropriate methodologies. Given that Scopus hosts the largest database of well-regarded research publications, it has been selected for the analysis. Cisualization analysis has been conducted using VOSviewer. Consequently, the analysis encompasses quantitative, qualitative, and structural factors that assess the researchers' output.

To conduct the bibliometric analysis, data have been retrieved from the Scopus database, using the keywords *"coaching" AND "education"*. The search was performed in July 2024, and yielded initially 8358 records. The following criteria and steps have been applied to ensure the relevance and quality of the dataset:

1. Inclusion criteria: publications have to be related to the application of coaching in educational settings, including higher education, teacher development, student support, and lifelong learning. Only documents with full bibliographic metadata (title, authors, source, abstract, and keywords) have been included. The following document types have been considered: articles, conference papers, and book chapters.
2. Exclusion criteria: articles in non-English languages without English

abstracts have been excluded.
3. Duplicate handling: The dataset has been scanned for duplicate entries (same DOI or title-author-year combination); 14 duplicates have been identified and removed.
4. Final dataset: after cleaning and filtering, a total of 8054 unique and relevant publications have been included in the final analysis.

To achieve the aim of the study, annual performance data from Scopus analysis have been used to identify growth patterns. For the comparative analysis, country co-authorship has been examined using VOSviewer to assess collaboration levels and growth. Additionally, keyword and country co-occurrence analyses have been conducted to identify the most influential sustainability factors in education and coaching. The tasks of the bibliometric analysis on coaching in education performance trends are as follows:

1. to analyze the yearly document production from the Scopus database to determine trends in coaching and education;
2. to use VOSviewer visualization to conduct co-authorship analysis, examining collaboration patterns between countries and identifying the most influential countries in the development of coaching in education;
3. to perform a keyword co-occurrence analysis to assess the frequency of various keywords.

The following research question has been put forward: How has an academic activity in the fields of coaching in education changed, and what key trends and themes have been identified through a bibliometric analysis?

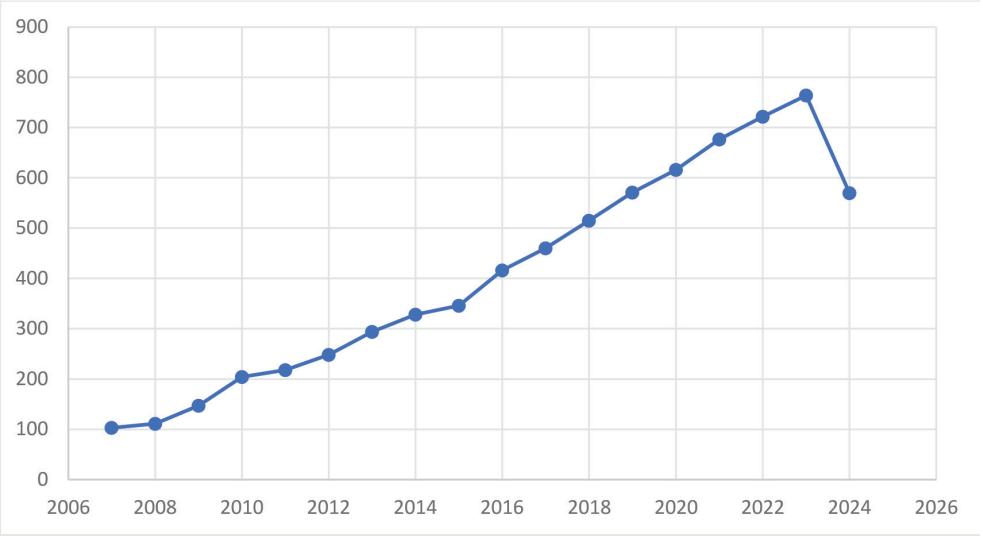
Research Results

The first paper, "Loss Prevention in Non-scheduled Civil Aviation", with the keywords "coaching AND education" was published in 1939 and indexed in Scopus database. It stressed the importance of education in achieving greater safety (Lederer, 1939).

The volume of articles with this combination remained low for a long time, reaching 103 articles in 2007. Since then, the results have increased slowly but steadily, reaching the current maximum of 764 articles in the Scopus database in 2023.

Figure 1

Dynamics of Publications. Source: Developed by the author using Scopus database (August 2024)



The highest growth rate of publications was observed in 2009, when compared with the previous year, the number of publications, containing "coaching AND education" increased by 32 %, in 2010, when it grew to 39 % and in 2016, when it reached 20 % growth. In other years, the increase was less significant. The decrease in 2024, when it was 615 publications (compared to 2023 with 764 publications), is due to the fact that the year was not over yet at the moment of writing the paper. The increase of interest in both coaching and education was related to the following facts during the mentioned years of research:

- in 2009, the UNESCO World Conference on Higher Education: The New Dynamics of Higher Education and Research for Societal Change and Development took place. As a result, the communique outlined the global challenges in higher education and the need for reforms United Nations Educational, Scientific and Cultural Organization [UNESCO], 2009);
- also, in 2009, the International Council for Coaching Excellence (ICCE) Global Coaching Convention took place, resulting in various papers and resolutions on best practices in education;
- in 2009, the European Union's Council Conclusions on the Professional Development of Teachers and School Leaders were published, emphasizing the importance of continuous professional development for education, including coaching as its essential component (The Council of the European Union, 2009);

- also, in 2009, the Organisation for Economic Co-operation and Development (OECD) "Teaching and Learning International Survey" (TALIS) was conducted, showing international perspectives on teachers' professional development, including the use of coaching and mentoring (OECD, 2009).

It should be noted that the UNESCO World Conference on Higher Education was held in July 2009, which definitely raised interest in publications in the field of education, including coaching as its aspect.

In 2010, the rising interest in coaching processes in education continued. Perhaps, it was related to the following publications:

- European Commission's "Improving Teacher Quality: The EU Agenda". This document outlined the European Union's strategy for improving teacher quality through continuous professional development, including coaching and mentoring practices (European Commission Directorate-General for Education and Culture, 2010);
- "Guide for Coaching in Organizations" by the International Coaching Federation (ICF) (2010). These guidelines were designed to help organizations implement effective coaching programs (Lawrence & White, 2014);
- The Global Monitoring Report on Education for All (UNESCO). This annual report by UNESCO reviewed progress towards achieving Education for All (EFA) goals, focusing on gender equality, quality education, and teacher training (UNESCO, 2010).

Two important events (among others) took place in 2010, with the direct impact on publications within coaching and education. First, the International Coaching Federation (ICF) Research Symposium was held in September 2010 in Texas, and second, the National STEM Education Initiative was launched in 2010 in the US. The initiative included funding teacher training programs that leveraged coaching and mentoring to improve STEM teaching practices and inspire more effective instruction in science and mathematics.

In 2016, interest in the fields of coaching and education began to grow again. Several related publications were issued during this year, for example:

- the OECD Report: "Teaching Excellence through Professional Learning and Policy Reform: Lessons from Around the World". This report examined global practices in teacher professional development and policy reforms aimed at enhancing teaching quality (OECD, 2016);
- "Coaching in Organizations: 2016 Global Coaching Study" by the International Coaching Federation (ICF). This study, conducted by the ICF, explored the use of coaching within organizations, including educational institutions, to enhance leadership, professional growth, and organizational effectiveness (ICF, 2016);

- European Commission's Report: "A New Skills Agenda for Europe: Working Together to Strengthen Human Capital, Employability and Competitiveness" (2016). This report stressed the importance of equipping educators with the skills needed to foster employability and adaptability (European Commission, 2016).

An international congress on coaching psychology occurred in 2016, and the International Global Coaching summit, organized by the International Coach Federation, took place the same year. Both events undoubtedly had historical meaning for the development of research in the fields of coaching and education.

After 2016, the number of publications on coaching and education steadily increased, peaking in 2023. In 2023, several key events and publications related to coaching and education took place, including the 13th International Congress of Coaching Psychology. These events highlighted the intersection of coaching and education, emphasizing both theoretical insights and practical applications in various fields.

If we consider the most prolific authors since 2007 (Table 1), the most prolific one is C. J. Cushion. He participated in 36 publications related to coaching and education. His most cited publication, written in 2013 in co-authorship with Partington, is called "An Investigation of the Practice Activities and Coaching Behaviors of Professional Top-Level Youth Soccer Coaches". It was cited 180 times in the Scopus database (Partington & Cushion, 2013).

Table 1

Top-10 of Most Prolific Authors Within Coaching and Education, 2007–2024 (Source: Developed by the author using the Scopus database)

Author	Affiliation	Country	Number of papers
Cushion, C.J. or C.	Loughborough University	The UK	36
Collins, D.	University of Central Lancashire	The UK	31
Greenberg, C.C.	UNC School of Medicine	The USA	22
Harvey, S.	Ohio University	The USA	20
Bodenheimer, T.	UCSF School of Medicine	The USA	16
Callary, B.	Cape Breton University	Canada	15
Camiré, M.	University of Ottawa, Faculty of Health Sciences	Canada	15
Leeder, T.M.	University of East Anglia, Faculty of Social Sciences	The UK	14
Mesquita, I.	University of Porto	Portugal	14

The next author in the category "The Most Prolific Authors" is D. Collins, who participated in 31 research papers in the area of education and coaching, especially sport coaching. His most well-known publication, "Sources, Topics and Use of Knowledge by Coaches," was written in 2016 in co-authorship with Stoszkowski and was cited 161 times (Stoszkowski & Collins, 2015).

Table 2

Documents Published by Subject Area, 2007–2024 (developed by the author, using the Scopus database, August 2024)

SUBJECT AREA	**Number of publications**	**%**
Social Sciences	3373	28 %
Medicine	3222	26.8 %
Health Professions	942	7.8 %
Psychology	906	7.5 %
Nursing	706	5.9 %
Computer Science	538	4.5 %
Business, Management and Accounting	469	3.9 %
Engineering	463	3.9 %
Arts and Humanities	261	2.2 %
Biochemistry, Genetics, and Molecular Biology	160	1.3 %
Other	864	8.2 %

If we examine the subject areas (Table 2), where the most publications contain the keywords "coaching AND education", the social sciences take the first place. This is definitely because this is the largest area, covering all fields, where coaching might be applied, as well as education, management, and sport. Since 2007, a total of 3373 articles have been published in this field. The second largest area (3222) is medicine, where coaching of the young professionals is a vital part of the educational process. Health professions (942) take the third place as coaching is its integral part, as well as psychology is directly related to the coaching.

Table 3

Most Popular Journal Lists and Citations. Source: Made by the author based on the Scopus database and Scimago Journal and Country Rank, 2007–2024

Journal	CiteScore 2023	SJR 2023	SNIP 2023	H-INDEX	Qn
Sport Education and Society	6.5	1.064	1.741	80	Q1
International Journal of Sports Science and Coaching	3.5	0.741	0.997	43	Q1
Academic Medicine	7.8	1.560	2.049	188	Q1
International Journal of Mentoring and Coaching in Education	2.9	0.517	0.950	23	Q2
International Sport Coaching Journal	3.1	0.590	0.840	16	Q2

Sport Education and Society is a popular journal with annual publications, containing "coaching AND education" related keywords in the papers starting from 2009 to 2024 (Table 3). The journal specializes in social sciences, including education, health professions, and medicine. It has been published in the UK since 1996 by Taylor and Francis.

The International Journal of Sports Science and Coaching has been publishing papers with related keywords since 2010. The number of publications within this field increases every year. This journal is published by SAGE, the UK. Its scope is wide and covers social sciences at large.

The following journal, "Academic Medicine" (formerly known as "Journal of Medical Education"), has also published papers with the mentioned keywords since 2010. It belongs to Wolter Kluwer Health publisher in the USA, and has been covered by Scopus since 1940. Papers in the fields of coaching and education are published in the section of social sciences: education.

Since 2012, publications related to coaching and education regularly appear in the "International Journal of Mentoring and Coaching in Education." It covers several subject areas, including social sciences: education and life-span, and life-course studies. Published regularly in the UK by Emerald Publishing, the journal has a Q2 rating in education and a Q3 rating in life-span and life-course studies. The journal consistently features research in these fields, maintaining its reputation within academia.

In 2019, a total of 12 publications within the framework of coaching and education first appeared in the International Sport Coaching Journal. This journal is published by Human Kinetics Publishers in the USA, and it specializes in social sciences: health.

If we were to analyze the most cited papers of the past 10 years, we would see that the most cited paper is "The Effect of Teacher Coaching on Instruction and Achievement: A Meta-Analysis of the Causal Evidence" (Kraft et al., 2018). This paper was published in the Review of Educational Research Journal. It has 534 citations in Scopus. Its Field-Weighted Citation Impact (FWCI) is 34.11. The FWCI shows how often a document is cited compared to similar documents. A value above 1.00 means it is cited more than average.

The second most cited paper is "Impacts of a Prekindergarten Program on Children's Mathematics, Language, Literacy, Executive Function, and Emotional Skills" (Weiland & Yoshikawa, 2013). It was published in the Child Development Journal and was cited 486 times. Its FWCI is 14.46, and it is dedicated to the impact of a prekindergarten program that implements a coaching system and consistent literacy language, and mathematics curriculum on these and other non-targeted, essential components of school readiness, such as executive functioning.

The third paper, "A Multifaceted Program Causes Lasting Progress for the Very Poor: Evidence from Six Countries" (Banerjee et al., 2015), was published in the Science Journal and cited 445 times (FWCI 6.65). It examines the effectiveness of a comprehensive approach to improving the livelihoods of the very poor.

The fourth paper, "Impacts of the CARE for Teachers' Program on Teachers' Social and Emotional Competence and Classroom Interactions" (Jennings et al., 2017), was published in the Journal of Educational Psychology and cited 308 times (FWCI 16.52). It discovers why understanding teachers' stress is of critical importance to address the challenges in today's educational climate.

The fifth most cited paper is called "Parent-Implemented Social Intervention for Toddlers with Autism: An RCT" (Wetherby et al., 2014). It was mentioned by other authors 275 times (FWCI 9.75). This paper was published in the Pediatrics Journal. It compares the effects of two 9-month parent-implemented interventions within the Early Social Interaction (ESI) Project.

The sixth paper under the title "The Effects of Health Coaching on Adult Patients with Chronic Diseases: A Systematic Review" (Kivela et al., 2014) was published in the Patient Education and Counselling Journal and cited 273 times (FWCI 5.68). This systematic review analyzes the effects of health coaching on adult patients with chronic diseases.

The seventh most cited paper with the keywords "coaching AND education" is "Negotiating Opportunities: How the Middle Class Secures Advantages in School" (Calarco, 2018), which was cited 264 times (FWCI 17.63). This paper explores how middle-class students gain an advantage in school not just by meeting expectations but also by negotiating for extra support, often beyond what is fair.

Number eight among the most cited papers in coaching and education is "Professional Identity (Trans)formation in Medical Education: Reflection, Relationship, Resilience" written by Wald in 2015. This paper was published in the Academic Medicine Journal and cited 290 times (FWCI 11.19). It discusses the role of professional identity formation in medical education, underlying the need for curricula that guide and protect the professional development of competent physicians.

The ninth most cited publication is "Telemedicine and Autism: Treating Challenging Behavior at a Lower Cost" (Lindgren et al., 2016), published in the Pediatrics Journal and cited 257 times (FWCI 9.77). The paper discusses whether challenging behavior in young children with autism and other developmental disabilities can be treated successfully at a lower cost by using telehealth to train parents to implement applied behavior analysis.

Finally, the least cited publication among the ten most cited ones is "Coached for the Classroom: Parents' Cultural Transmission and Children's Reproduction of Educational Inequalities" (Calarco, 2014). It was cited 256 times (FWCI 6.92). The paper was published in the American Sociological Review Journal and showed how parents actively transmitted class-based cultures to children and how these lessons reproduced inequalities.

A bibliometric analysis has also been carried out based on the data from such databases as Google Scholar, Scopus, and Web of Science. A visualization map of citations and the evolution of keywords has been built using VOSviewer software. According to the results of the study, a strong connection between the studied terms and the relevance of further research in this area has been revealed.

Using the Scopus database, documents containing keywords "coaching AND education" have been selected in the English language, and all other languages have been removed. A total of 8054 documents have been found.

Using VOSviewer program, Scopus.csv data have been uploaded to the program, then the data have been created using co-authorship as the type of analysis, countries as a unit of analysis, full counting as a counting method, maximum number of countries per document: 25, minimum number of documents of a country: 3. For each of the 343 countries, the total strength of the co-authorship has been calculated, where 78 met the threshold. This way the greatest total link strength has been calculated between these countries.

Figure 2

Co-authorship by Country Analysis. Source: Visualization mapping generated by the author from Scopus and VOSviewer 1.6.17

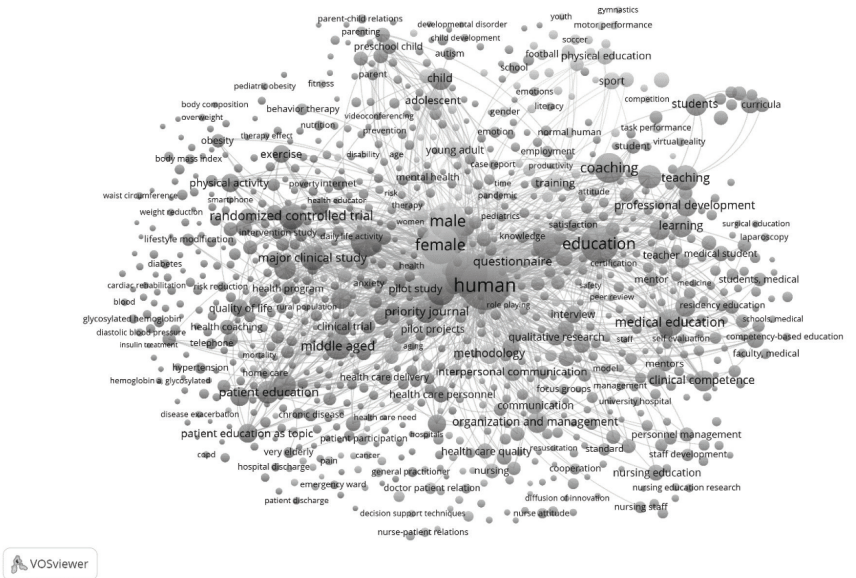


Figure 2 indicates Vosviewer Coauthorship visualization mappings for countries. The results show that there are stronger collaborations among the USA, Canada, the Netherlands, and Australia as the nodes are closer to each other. Altogether, the results show that there are 78 items and 21 clusters, 738 links, and a total link strength is 2621. The United States has the largest node, indicating the most influence, followed by the United Kingdom. If we consider Latvia, it belongs to the cluster of 21 countries, where both developed (the Czech Republic, Hungary, Poland, and others) and undeveloped countries (Bangladesh, India, Iran, Iraq) are represented. Latvia is represented in one cluster, with 17 links and a total link strength of 19; seven documents are published regarding coaching and education in co-authorship with authors, representing such countries as Slovakia, Poland, Spain, Italy, Hungary and Iran as the countries with the closest connection and France, Finland, United Kingdom and Belgium as the countries with the weakest connection regarding the co-authorship.

Then, co-occurrence has been selected as a method of analysis. All keywords have been analyzed, full counting has been used, and a minimum number of occurrences of a keyword has been set to 10. Of the 23356 keywords 3199 have met the threshold. Altogether, there are 954 items shown in Figure 3. Six clusters have been formed, and 179823 links have been established, with a total link strength of 895496.

Figure 3

Depicting the Elements of Coaching and Education. Source: Visualization mapping generated by the author from Scopus and VOSviewer 1.6.17



Coaching is an interactive process where all humans perform self-discovery. That is why the biggest node is human, followed by male and female nodes (Figure 3). Coaching is a part of education, training, teaching, and learning. There are traditionally many papers devoted to the coaching process in medical education; this note is also quite impressive and leads, accordingly, to the existence of nodes such as “major clinical study” and “patient education”, as well as “health care personnel”. Besides, coaching is an impressive tool of interpersonal communication; it is a definitive part of methodology (also teaching one), if talking about coaching in education, logically, nodes “students” and “curricula” appear there. There are also nodes, such as “competency-based education”, “organization and management”, “communication”, and others that consider coaching an essential tool for various fields of education, industry, and a progressive element of communication etc.

Discussion

As a result of the research, a notable increase in publications addressing the application of coaching in education, particularly over the past decade, has been revealed. It should be noted that the peaks of publication activity coincided with key global events, for example, the adoption of the SDGs in 2021. The research has also shown a shift to online and blended learning during the COVID-19 pandemic.

The results have demonstrated that educators and researchers have started to recognize coaching as a valuable approach in the contribution to learners' autonomy, adaptability, and the development of critical thinking. These skills are essential for navigating the rapidly changing environments of the modern world. The educators have also shown an interest in the application of coaching as a pedagogical tool to support both teacher professional development and student-centered strategies.

The analysis of keywords and co-authorship networks has revealed dominant research themes, such as "teacher coaching", "student engagement", "lifelong learning", and "critical thinking". The co-occurrence mapping has highlighted strong thematic links between coaching and sustainability, contributing to the statement that coaching methodologies can advance SDG 4 by improving education quality and equity. The most prolific countries included the USA, the UK, and Australia, with growing publications from Asian and Latin American countries, suggesting a widespread adoption of coaching practices in education. However, regional disparities exist, showing the research gaps and opportunities for cross-cultural and comparative studies.

The observed trends have revealed a vast potential of coaching to transform the educational practices by providing learners with the necessary competencies for sustainable development. Coaching practice integration into curricula helps cultivate resilience, fosters critical reflection, and self-directed learning. It also aligns educational systems more closely with the needs of the 21st-century society. To explore the long-term impact of coaching on diverse learner populations, further research is needed.

Conclusion

Using a bibliometric analysis, the research has focused on coaching as a tool in the modern education process. A total of 8054 documents have been extracted for a comparative analysis. Vosviewer visualization mapping has been used to perform country co-authorship analysis to determine the level of collaboration, and the elements have been depicted to find the keywords that most often appear in publications related to coaching and education. Scopus databases have been analyzed from 2007 to 2024 to determine the trends of coaching in education. Keyword co-occurrence analysis has been performed to examine the frequency of different keywords of coaching in education.

The findings have shown that the first combination of words "coaching and education" appeared in 1939. Then, the rise of the publications significantly started in 2007. Since then, the results have increased slowly but steadily, reaching the current maximum of 764 articles in the Scopus database in 2023. The author has tried to analyze how the annual growth of the publications within coaching and education is related to the events that have taken place over the years. Then, the most prolific authors have been analyzed since 2007.

C. J. Cushion is the most prolific author with 36 publications. The subject area containing publications about "coaching AND education" has also been analyzed. Social sciences is the widest category and has the largest number of publications, i.e., 28 % of the volume of published papers since 2007. Most popular journals, where publications within coaching and education appear, have been examined. Many journals not only include "education" in their titles but also "sport", which makes sense given that coaching has its roots in sports, with many of its core principles closely tied to the industry. Most cited papers over the past ten years have been researched, and the content of each has been examined thoroughly. Vosviewer Coauthorship visualization mapping for countries has revealed stronger collaborative networks between the USA, Canada, the Netherlands, and Australia. This is reflected in the proximity of their nodes, indicating closer research partnerships among these nations. Results of overlay visualization have shown that the development of coaching, related to education, has started in the USA, the UK, Australia, Canada, the Netherlands, France, and Belgium. Then, the co-occurrence has been selected as a method of analysis, and all keywords have been analyzed thoroughly.

The study aims to assist educators in assessing and analyzing development trends in coaching within education and forecasting future trends. However, the research has limitations, as it only includes documents written in English, potentially overlooking valuable studies in other languages. Additionally, the data have been restricted to the Scopus database, which does not index all relevant research, possibly impacting the research findings. Furthermore, bibliometric research has constraints because it primarily relies on secondary data, whereas specific studies might require primary data for more precise insights.

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