

Community-Based Learning in Islamic Countries: A Bibliometric Analysis from 1991 to 2024

Sahib, F. H.

Centre for Fundamental and Continuing Education, Universiti Malaysia Terengganu,
21300 Kuala Nerus, Terengganu, Malaysia
Tel: +6011-13124482 E-mail: farah_hussan@umt.edu.my

Ahmad Tajuddin, A. J. (Corresponding Author)

Centre for Fundamental and Continuing Education, Universiti Malaysia Terengganu,
21300 Kuala Nerus, Terengganu, Malaysia
Tel: +6019-2830386 E-mail: azzajauhar@umt.edu.my

Romly, R.

Centre for Fundamental and Continuing Education, Universiti Malaysia Terengganu,
21300 Kuala Nerus, Terengganu, Malaysia
Tel: +6013-9287977 E-mail: raihana.romly@umt.edu.my

Jamil, N. J.

Centre for Fundamental and Continuing Education, Universiti Malaysia Terengganu,
21300 Kuala Nerus, Terengganu, Malaysia
Tel: +6019-7497905 E-mail: jannahjamil@umt.edu.my

Abdullah, A. N. S.

Centre for Fundamental and Continuing Education, Universiti Malaysia Terengganu,
21300 Kuala Nerus, Terengganu, Malaysia
Tel: +6011-37406369 E-mail: syazre@umt.edu.my

Saharani, M.

Department of General Studies, Politeknik Ungku Omar, 31400 Ipoh, Perak, Malaysia
Tel: +6012-4406708 E-mail: munawira@puo.edu.my

Ibrahim, M. A. N.

Academy of Language Studies, Universiti Teknologi MARA Cawangan Terengganu,
23000 Dungun, Terengganu, Malaysia
Tel: +6019-9478037 E-mail: mohda141@uitm.edu.my

Abd Rahman, S.

Language Academy, Faculty of Social Sciences and Humanities, Universiti Teknologi Malaysia,
81310 Skudai, Johor Bahru, Malaysia
Tel: +6012-7370551 E-mail: shazwani@utm.my

Nasharudin, S. N. S.

Academy of Language Studies, Universiti Teknologi MARA, 40450 Shah Alam, Selangor,
Malaysia
Tel: +6012-5765853 E-mail: sharifahnadia@uitm.edu.my

Tajuddin, I. K. I.

Wealth Realisation Sdn. Bhd., A-6 Tingkat 6, Excella Business Park, Taman Ampang Hilir,
55100 Kuala Lumpur, Malaysia

Tel: +6017-3152491 E-mail: ikram@wrtraderacademy.com

Abstract

Community-Based Learning (CBL) is a transformative pedagogical approach with diverse applications across educational fields. However, its impact in Islamic countries has raised concerns regarding its breadth and relevance across sectors. This study offers a bibliometric review of CBL research from 1991 to 2024, analysing 176 publications from the Scopus database. Various tools, including Microsoft Excel for frequency analysis, VOSviewer for data visualization, and Harzing's Publish or Perish for citation metrics, were employed. The findings indicate a significant rise in CBL research, yet citation trends remain inconsistent. Most studies were concentrated in the medical and educational fields, with Indonesia and Malaysia leading in publication output, while Egypt hosted the most active institutions. The keywords used in CBL research highlighted three themes: human-centric focus, educational focus, and academic keywords. However, the lack of specific, focused keywords limits in-depth exploration. The results provide important implications for improving CBL research and practise in Islamic countries.

Keywords: Community-based learning; CBL; Bibliometrics review; Scopus; VOSviewer

Introduction

Community-based learning (CBL) encompasses a comprehensive array of

pedagogical methodologies that empower individuals, including kids and adults, to acquire knowledge from many segments of the community according to their interests. In relation to higher education, the top-notch universities have recorded that CBL as an effective practice in the teaching and learning method serving the educational purposes (Hamzah et al., 2023). Malaysia Education Blueprint (MEB) 2015-2025 undertook the implementation of CBL in the teaching and learning course strategies for the universities to produce graduates that can perform globally as well as achieving Malaysian stakeholders' requirements (Ministry of Education, 2012). This is because CBL is a combination of the elements of i) course learning outcomes, ii) soft skills, and iii) service to the community. Ergo, these CBL approaches are the opposite of the 'normal' university norm that focuses on the traditional in-class teaching and learning methods (Fauziddin et al., 2022). Students learning time (SLT) would be spent by having interactions with the local communities while solving community issues.

Nonetheless, it is imperative to highlight that the recurring issue that persists in the current society is the difficulty of the fresh graduates being employed even when they have passed with flying colours. According to Law (2018), more than half of the graduates from the public and private universities are earning less or unemployed, which shows the decline in the expected employment rate. This also has been supported by D'Silva (2020), in

which the underemployment rate is rapidly increasing, effected by this 2-year pandemic that had the graduates take any kind of job as long as they are paid. Su and Zhang (2020) declared that the graduates need to have employable values such as upgrading their skills or endeavour into freelancing that can open to other job opportunities.

Higher education institutions need to pay special attention in generating the top quality among the graduates so that they will be excellent in their studies and able to perform their best worldwide (Verde & Valero, 2021). It has come to a realisation that excellent graduates can synchronise their subject knowledge, soft skills, and their ability to develop social relationships with other people (Tang, 2019). Malaysia is also inspired to nurture the graduates to be greatly confident with themselves and value devotion to the country (Malaysia Education Blueprint 2015-2025) (Ministry of Education, 2012). Ten teaching and learning strategies have been charted by the Ministry of Higher Education (MOHE) in the implementation of Malaysia Education Blueprint (MEB) 2015-2025 to achieve the aspiration. MEB 2015-2025 has included experience-based learning practices (experiential learning), education on diversity and the global world (diversity and global learning), learning through community-based, collaborative projects, seminars, internship training and many more to be a few strategies that should be applied in the course learning.

In this regard, the Ministry of Higher Education Malaysia introduced Experiential Learning and Competency Based Education Landscape (EXCEL) in 2021. Its main aim is to embed research, industry and community-based elements as well as personalization in curriculum delivery (Ministry of Higher

Education (MOHE) Malaysia, 2021). The objective of EXCEL is for the higher education institutions in Malaysia to design academic programs in order to produce resilient and change-ready talents. Community Resilience Experiential Learning (CARE) is one of the thrusts of EXCEL. CARE is in line with several national policies and initiatives related to community engagement, which include the National Community Policy and the Rural Development Policy.

Previous research has been conducted on CBL across various fields of study, including medicine, engineering, sciences, and education. Numerous studies have been conducted on CBL in Islamic countries, including research in obstetrics and gynaecology in Bangladesh (Islam, 1999), the effects of community-based religious education on enhancing student learning outcomes in Indonesia (Aris et al., 2023) and a large-scale study on the civic attitudes, growth, and intercultural sensitivity of female university students in Sudan (Osman, 2020). Despite the plethora of research on experiential learning strategies in recent publications, there is still a dearth of research on how much community-based learning is examined, especially in Islamic countries. To the best of the authors' knowledge, this gap highlights the need for bibliometric analysis to better understand the research landscape and identify key themes and contributions in this area.

Considering the aforementioned gap, this bibliometric study is intended to systematically review methodologies with a focus on citation analysis, including co-citation. Bibliometric analysis examined the quantity and quality of research publications. The quantity indicator pertains to the productivity levels of individuals engaged in

research activities, while quality indicators are related to the effectiveness of output, evaluated through metrics such as citation counts or citations per year, the overall h-index or g-index, and the citation score (Wahyudi et al., 2022). A fuller comprehension of this study may shed more light on its significance in the present research trends. Therefore, the purpose of this study is to explore the level of scholarly attention given to community-based learning research primarily in Islamic countries. It aims to answer three main research questions:

1. How is community-based learning (CBL) research developing and progressing in Islamic countries?
2. What are the primary themes that have been addressed in CBL research in Islamic countries?
3. Who and what are the influential researchers and institutions in terms of publications on CBL in Islamic countries?

Methodology

Database Selection

The objective of this bibliometric research is to explore the intellectual foundations of CBL research in Islamic nations. To accomplish this, the researchers chose a data source capable of identifying articles that employ academic terminology related to CBL. To ensure the accuracy and reliability of the findings, only publications from reputable journals were included in the analysis. Scopus is chosen as the preferred database for this study due to its extensive coverage of scholarly literature as compared to PubMed or Web of Science (Falagas et al., 2008; Sweileh et al., 2017). Firstly, Scopus is chosen as the preferred database for this

study due to its vast coverage of scholarly literature. With over 87 million documents, including journal articles, conference papers, and more, Scopus provides a comprehensive overview of research output in various disciplines, including education (Sahib & Stapa, 2022).

Secondly, another valuable aspect of Scopus is its inclusion of 17 million author profiles. These profiles allow for the identification and analysis of influential researchers and their contributions to the field of CBL. By utilizing Scopus, this study can provide insights into the research activities and collaborations of scholars in this domain. Next, the database was chosen because of its rich citations. Scopus incorporates 1.8 billion cited references, enabling researchers to track the scholarly impact of individual articles and identify key works in the field of CBL. By leveraging this extensive citation network, the study can assess the influence and relevance of specific publications, identify emerging trends, and evaluate the interconnectedness of research in the domain. Finally, the Scopus database is trusted by the scientific community. The database is widely recognized and accepted by the international scientific community as a primary source of reliable and up-to-date research data (Mansour et al., 2021). Its reputation and extensive usage in academic circles further support the rationale behind selecting Scopus for conducting a bibliometric analysis on CBL.

Therefore, by utilizing Scopus as the chosen database for this study, the research can benefit from its comprehensive coverage, author profiles, rich citation network, and widespread acceptance within the scientific community. These factors contribute to the credibility, robustness, and relevance of the

findings generated from the bibliometric analysis on CBL.

Inclusion Criteria

In order to identify relevant articles for this study, the researchers utilized the specific keyword "community-based learning" during their search of the Scopus database. The search was conducted on September 1, 2024, and included articles published between 1991 and 2024. The search was performed on all fields, and the results were exported into bibliographic management software for further analysis. A total of 2,765 documents

were initially retrieved. Of these, 2 articles were excluded due to errata, 67 were omitted due to unspecified country affiliations, and 2,520 articles from non-Islamic countries were excluded. Consequently, 176 relevant articles were included in the final analysis. These publications were utilised to evaluate the present condition of community-based learning research in Islamic nations and to discern significant trends within the domain. This approach ensured that the study relied on primary sources, encompassing recent and pertinent discoveries in the realm of CBL. The process is illustrated in Figure 1.

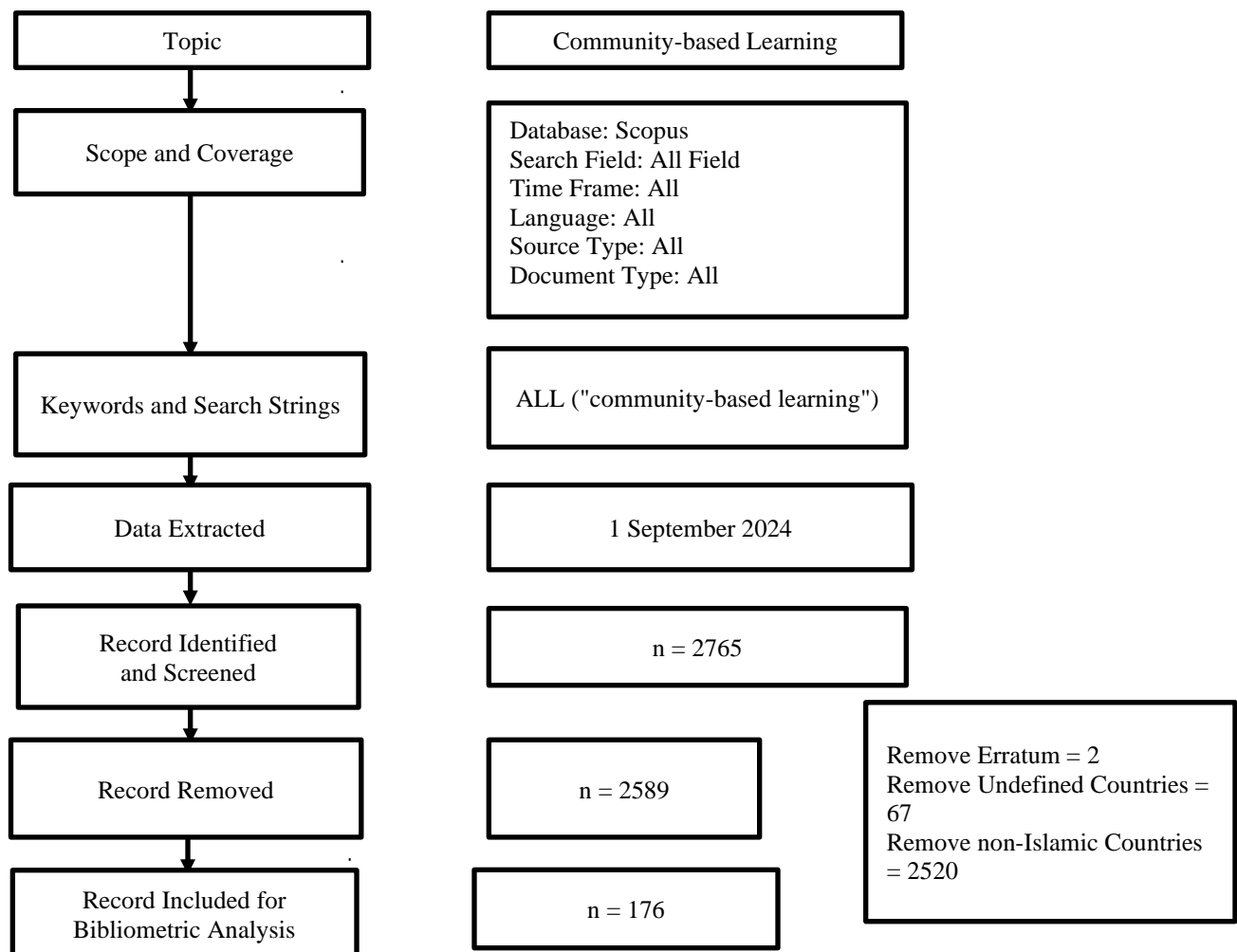


Figure 1: Flow diagram of the search strategy

Data Analysis and Tools

In order to analyse the collected data and gain a comprehensive understanding of the intellectual foundations of CBL research within Islamic communities, the researchers utilized various bibliometric techniques in this study. Citation analyses were conducted by the authors to identify the most cited papers, authors, and journals in the field, and performed an analysis to determine the key topics and themes in the literature, as well as emerging research trends, employing performance analysis and science mapping (Noyons et al., 1999) for evaluating publication characteristics and displaying content features. It is crucial to emphasize that citation analysis allows the researchers to examine the most frequently cited papers, authors, and journals in the CBL research domain, providing insights into the intellectual foundations of the field. Meanwhile, co-word analysis helps to identify key topics, themes, and emerging research trends within the literature.

Furthermore, the researchers employed several software tools to enhance the analysis process. Microsoft Excel was used for conducting frequency analysis to quantify the occurrence of certain terms and concepts within the collected data. VOSviewer, a widely recognized bibliometric software, facilitated the visualization of author keywords, titles, and abstracts enabling them to explore the relationships and the influence of cited works. Lastly, Harzing's Publish or Perish, a well-regarded tool in citation analysis and metrics assessment, assisted the researchers in identifying influential articles and authors within the CBL research field. On this note, the researchers recognized other analysis techniques but firmly believe that utilizing citation analysis and co-word analysis, along with relevant software tools,

effectively addresses the research questions. These methods are widely accepted in bibliometrics and offer valuable insights into the intellectual foundations, research patterns, and emerging trends in CBL research.

Overall, this study used a systematic and rigorous methodology to identify the intellectual foundations of community-based learning research across the Islamic world. The utilization of a systematic and rigorous methodology in this study enables a comprehensive exploration of the intellectual foundations of CBL research, filling a significant unexplored research area and providing valuable insights into the trends, developments, and advancements in the field. The findings can inform future research directions, aid in the identification of understudied areas, highlight influential scholars and publications, and contribute to the knowledge base of CBL for researchers, practitioners, and policymakers.

Results and Discussion

Development and Progress of the CBL Research

To address the first research question, which examines the development and progression of CBL research, this study analyzed the following aspects: (a) the annual frequency of published studies; (b) the distribution of sources and document types; and (c) the distribution of source titles.

Number of Published Studies Per Year

Table 1 exhibits the number of CBL research publications over 1991 until 2024. The trend of publications on community-based learning in Islamic countries shows a slow start, with only sporadic publications in the 1990s and

early 2000s. From 2013 onwards, there was a noticeable increase, with publications steadily rising, peaking in 2023 with 33 publications. The year 2020 marked a significant surge, with 18 papers, which grew substantially in 2021 and 2023. It can be accentuated that the increase of this trend was due to the release of Education for Sustainable Development Goals (SDGs) in 2017, in which the fourth goal focused on quality education, encouraging the involvement of community-based learning or lifelong learning infused into the process of learning. After Sustainable Development

Goal 4 was established with a focus on education, with an aim to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” (United Nations [UN], 2015), CBL gained considerable attention from researchers worldwide. On this ground, Ferguson and Rooft (2020) agreed that higher education institutions (HEIs) have a critical role to play with respect to the achievement of the SDGs through their research efforts. The potential for this result stimulates and emboldens multiple researchers to engage in further research.

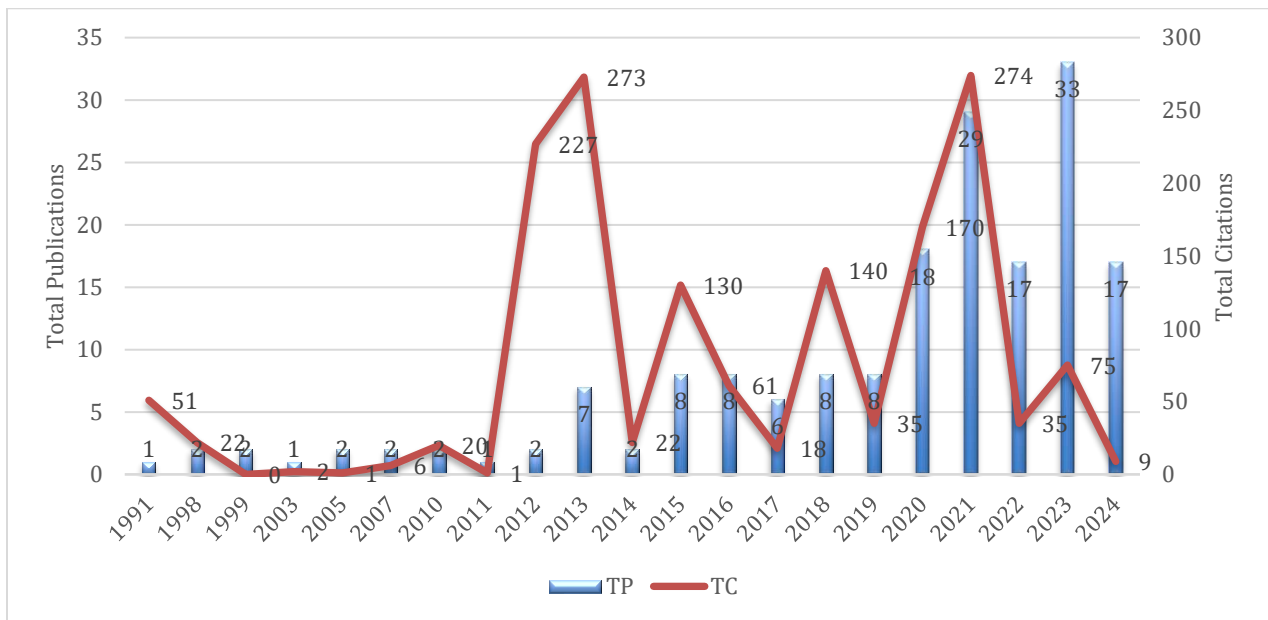
Table 1: Number of CBL research publications by year

Year	TP	%	NCP	TC	C/P	C/CP	<i>h</i>	<i>g</i>
1991	1	0.57%	1	51	51.00	51.00	1	1
1998	2	1.14%	2	22	11.00	11.00	2	2
1999	2	1.14%	0	0	0.00	0	0	0
2003	1	0.57%	1	2	2.00	2.00	1	1
2005	2	1.14%	1	1	0.50	1.00	1	1
2007	2	1.14%	2	6	3.00	3.00	1	2
2010	2	1.14%	1	20	10.00	20.00	1	1
2011	1	0.57%	1	1	1.00	1.00	1	1
2012	2	1.14%	2	227	113.50	113.50	2	2
2013	7	3.98%	6	273	39.00	45.50	4	6
2014	2	1.14%	2	22	11.00	11.00	2	2
2015	8	4.55%	7	130	16.25	18.57	5	7
2016	8	4.55%	7	61	7.63	8.71	4	7
2017	6	3.41%	6	18	3.00	3.00	2	3
2018	8	4.55%	7	140	17.50	20.00	5	7
2019	8	4.55%	7	35	4.38	5.00	4	5
2020	18	10.23%	13	170	9.44	13.08	7	13
2021	29	16.48%	25	274	9.45	10.96	10	15
2022	17	9.66%	11	35	2.06	3.18	3	5
2023	33	18.75%	17	75	2.27	4.41	5	7
2024	17	9.66%	5	9	0.53	1.80	2	2

Abbreviations: C/CP, average citations per cited publication; C/P, average citations per publication; *g*, *g*-index; *h*, *h*-index; NCP, number of cited publications; TC, total citations; TP, total number of publications.

As can be seen in Figure 2, total publications are increasing, but total citations are showing inconsistent trends. Regarding citations, 1991 saw a high number of 51 citations, followed by a drop in subsequent years, with 1999 and 2011 recording zero. However, there was a sharp increase in citations from 2012 onwards, notably in 2013 and 2014 with 227 and 273 citations, respectively. This peak

in citation activity aligns with the rise in publications from 2013, reflecting growing scholarly interest. However, despite the highest number of publications in 2023, the total citations for that year remain relatively low, indicating a potential time lag in impact. Figure 2 displays total publications and citations of CBL research in Islamic countries.



Abbreviations: TP, total publications; TC, total citations

Figure 2: Total publications and citations per year

Sources and Document Types

This study also aims to determine where CBL publications are released by analysing data based on the type of source document (Table 2). Journals are the most common source, accounting for 143 papers (81.25%),

followed by 17 conference proceedings (9.66%), books (n=12; 6.82%), and book series (n=4; 2.27%). This information assists scholars in understanding where CBL research is published in Islamic nations and the types of sources researchers can use to find relevant literature in the field.

Table 2: Sources for CBL research

Source Type	TP	%
Journal	143	81.25%
Conference Proceeding	17	9.66%

Book	12	6.82%
Book Series	4	2.27%

Abbreviation: TP, total publications.

Meanwhile, the data was also examined based on document types. Table 3 presents the distribution of document types in CBL research, revealing that articles dominate the CBL research publications with 72.73% (n=128) of the total publications, followed by conference papers with 13.07% (n=23), book chapter with 6.25% (n=11) and review with 5.68% (n=10). Book, note, and short survey constitute the remaining document types with a relatively small percentage of representation. The findings suggest that CBL research is mainly published in article format, which reflects the preference of researchers to report their findings in a concise and focused manner. The dominance of article publications may also indicate the preference of journals in publishing CBL research.

Table 3: CBL research document types

Document Type	TP	%
Article	128	72.73%
Conference Paper	23	13.07%
Book Chapter	11	6.25%
Review	10	5.68%
Book	2	1.14%
Note	1	0.57%
Short Survey	1	0.57%

Abbreviation: TP, total publications.

Sources Titles

The preponderance of scholarly attention directed towards community-based learning (CBL) within Islamic states has been published in numerous journals. Of the top 10 most active source titles in CBL research, Medical Teacher claims the largest number of publications (n=6) and total citations (n=84), followed by the BMC Medical Education (n=5), and the Journal of Physics Conference Series (n=5). It is noteworthy that these active sources are predominantly situated within the field of medicine and education, signalling the discipline's pervasive influence in the realm of CBL research. Sources containing the term 'health' can also be located in few journals such as Journal of Multidisciplinary Healthcare,

Advances in Health Science Education, and Human Resources for Health. Shah et al. (2023) clarified that in the field of health, community health is a dynamic discipline that significantly gains from community-based education and instruction in higher education. Consequently, this substantiates that CBL is functional in the domains of medicine, health, and education. Table 4 displays 10 most active source titles in CBL research.

Table 4: Top 10 most active source titles

Source Title	TP	%	Publisher	Cite Score	SJR 2023	SNIP 2023	NCP	TC	C/P	C/CP	<i>h</i>	<i>g</i>
Medical Teacher	6	3.41%	Taylor & Francis	7.8	1.38	2.374	5	84	14.00	16.80	4	5
BMC Medical Education	5	2.84%	Springer Nature	4.9	0.935	1.603	4	8	1.60	2.00	2	2
Journal of Physics Conference Series	5	2.84%		1.2	0.18	0.303	3	5	1.00	1.67	1	2
Aip Conference Proceedings	4	2.27%		0.5	0.152	0.291	0	0	0.00	0.00	0	0
Journal of Multidisciplinary Healthcare	3	1.70%	Dove Medical Press	4.6	0.682	0.958	2	21	7.00	10.50	2	2
Advances in Health Sciences Education	2	1.14%	Springer Nature	6.9	1.452	2.147	2	13	6.50	6.50	1	2
Cypriot Journal of Educational Sciences	2	1.14%	Birlesik Dunya Yenilik Arastirma ve Yayıncılık Merkezi	NA	NA	NA	2	6	3.00	3.00	2	2
Enhancing Curricula with Service-Learning Models	2	1.14%	IGI Global	NA	NA	NA	0	0	0.00	0.00	0	0
European Journal of Dental Education	2	1.14%	John Wiley & Sons	4.1	0.633	1.264	1	10	5.00	10.00	1	1
Human Resources for Health	2	1.14%	Springer Nature	8.1	1.577	2.076	2	35	17.50	17.50	2	2

Abbreviations: C/CP, average citations per cited publication; C/P, average citations per publication; Cite Score, average citations received per document published in the source title; *g*, *g*-index; *h*, *h*-index; NCP, number of cited publications; SJR, SCImago Journal Rank measures weighted citations received by the source title; SNIP, source normalised impact per paper measures actual citations received relative to citations expected for the source title's subject field; TC, total citations; TP, total number of publications.

The Primary Themes in CBL Research

The second research question centres on determining the major themes explored in CBL research. In order to achieve this, the study analysed the essential aspects of the research based on (a) the frequency of keywords, (b) the titles and abstracts of the documents; and (c) titles of the documents.

Keyword Analysis

In performing a search on any websites, selecting relevant keywords is very important in order to find related papers or documents. Figure 3 reveals a network visualisation of the

author's keywords that each had a minimum of five occurrences. According to Mansour et al. (2021), a link between the two topics can take place when two keywords appeared in the same article. Analysis for keyword analysis was done based on the colour, circle size, font size, and thickness of connecting lines that represent relationships between keywords (Wahid et al., 2020). Therefore, based on the analysis, 22 clusters with 277 items in the CBL research have been developed based on the author's keywords. The diagram suggests that community-based learning, curriculum, service learning, Egypt, interprofessional education are interrelated, implying that these keywords were closely related and usually occurred together.

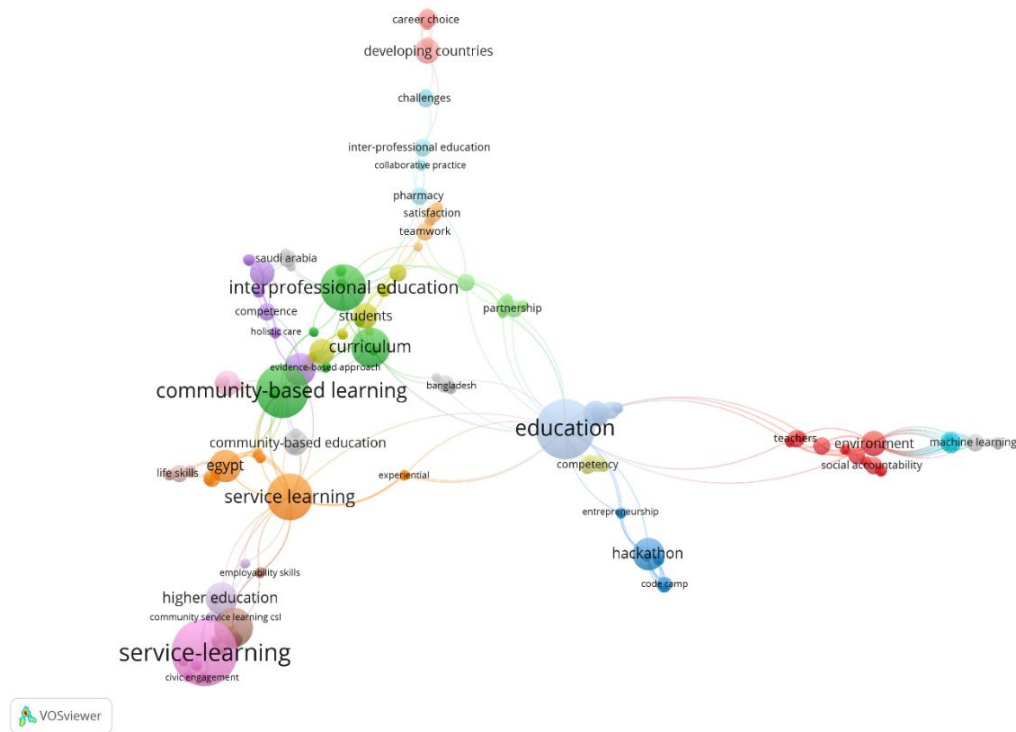


Figure 3: Author keyword

The keyword analysis reveals critical themes and focuses in the research on community-based learning in Islamic countries. Table 5 demonstrates the most frequently used

keyword is "Human," which appears in 30.68% of the total publications. This is closely followed by "Article" and "Humans," both appearing in 20.45% of the papers. The

repetition of similar terms like "Human" and "Humans" indicates a general focus on human-centric studies, but also highlights a lack of specificity in keyword choices, which could dilute the thematic precision of the research.

Specifically, when categorizing the keywords into broader themes, three main categories emerge. First, the theme is human-centric focus. Keywords like "Human," "Humans," "Female," "Male," and "Human Experiment" dominate. This indicates that much of the research revolves around human subjects, reflecting the emphasis on personal and social aspects of learning. However, this also suggests an overuse of general terms, potentially limiting the clarity of the research scope. Next, the theme that appear is educational focus. In this case, keywords like "Education," "Learning," "Curriculum," and "Medical Education" highlight the educational aspect of community-based learning. While these terms confirm the expected focus on learning, the presence of "Medical Education" (10.23%) indicates a niche concentration in healthcare-related studies within the larger educational field. The final theme is general academic keywords. "Article" appearing in 20.45% of the publications shows a somewhat vague categorization that may not add much thematic value, suggesting a need for more

targeted and meaningful keywords in future research.

Nevertheless, the critical issue here lies in the overgeneralization of keywords, particularly with terms like "Human" and "Article." This trend suggests a lack of refined thematic precision that could better distinguish research strands, allowing for deeper and more specific insights into community-based learning. Future research would benefit from employing more focused, descriptive keywords that align more closely with the specific educational, cultural, or societal aspects being studied. Donthu et al. (2021) pointed out that using words as a unit of analysis has notable drawbacks, as many words appear in multiple contexts, requiring careful (re)reading of publications to understand their relationships. Furthermore, some terms are too broad to be easily categorized into specific thematic clusters. They suggested that to alleviate the drawbacks of co-word analysis, researchers are advised to employ it cautiously. Firstly, it may enhance co-citation analysis by offering profound insights into thematic clusters; secondly, it can assist in predicting future research by examining important terms derived from the implications and directions of publications (Chang et al., 2015; Donthu et al., 2021). Table 5 displays the 10 most significant keywords in CBL research within Islamic communities.

Table 5: Top 10 keywords in CBL research

Keywords	TP	%
Human	54	30.68%
Article	36	20.45%
Humans	36	20.45%
Education	23	13.07%
Learning	23	13.07%
Female	22	12.50%

Male	22	12.50%
Human Experiment	19	10.80%
Curriculum	18	10.23%
Medical Education	18	10.23%

Abbreviation: TP, total publications.

Title and Abstract Analysis

This section utilized VOSviewer to examine the titles and abstracts of collected documents to identify the frequency and quantity of co-occurrences within each document. Precisely, the research creates the co-occurrence network by utilizing the binary counting technique. Figure 4 depicts a graphical representation of a network of co-occurring terms based on the title and abstract fields, where a minimum of five terms are included. The width of the node in the network illustrates the degree of significance of the corresponding term, whereas the thickness of

the connecting line depicts the strength of the association between the terms. The co-occurring words that are displayed in the same colour signify their likelihood to appear jointly (Mansour et al., 2021). Terms such as project, service learning, field, infrastructure, educator, child, case study, methodology, discipline, instruction, and partnership which are highlighted in purple, are closely interconnected and frequently occur together in the diagram. VOSviewer, specifically, generates six distinct clusters of 148 terms each from the publication's title and abstract, with each cluster represented by a unique colour.

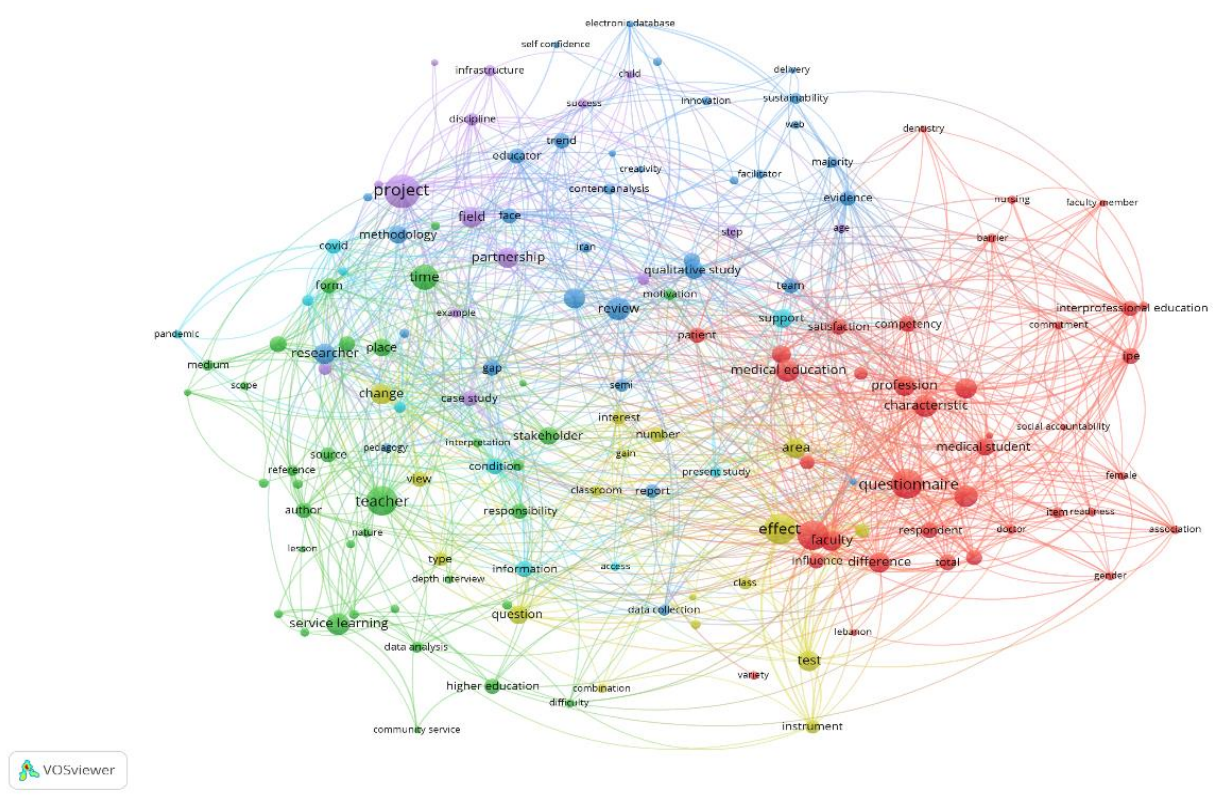


Figure 4: VOSviewer visualisation of a term co-occurrence network based on title and abstract fields

Figure 5 presents the structure of a term co-occurrence network based on titles. A binary counting approach was employed, requiring a minimum of three occurrences for each phrase. The data reveals that VOSviewer generated 24 items distributed among six clusters. In CBL research, the term "service" served as the core node of the entire network.

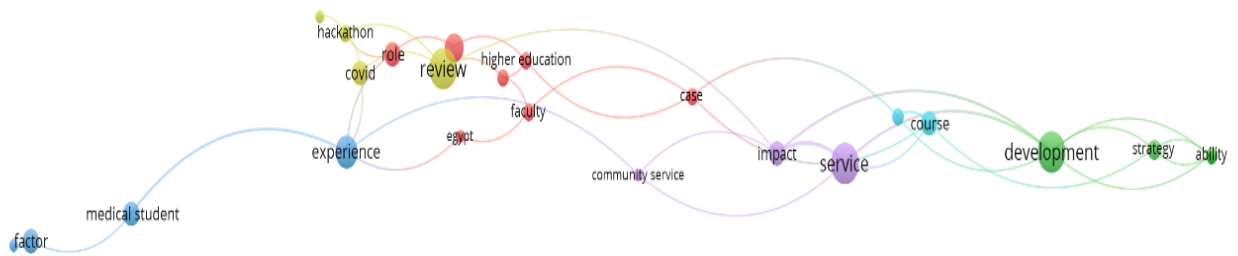


Figure 5: VOSviewer visualisation of a term co-occurrence network based on title field

Major Players in CBL Research

This section examines the third research question, which is to evaluate scientific cooperation on CBL research through (a) an analysis of publications by country, (b) the most active institutions engaging in CBL research, (c) authorship analysis, and (d) citation analysis.

Publication by Countries

Table 6 reveals the published indicators for the top 10 Islamic nations in terms of CBL research. Indonesia has the highest scientific papers in the research with 49 (27.84%) papers, followed by Malaysia with 30 (17.05%). The remaining authors' national associations constituted below 30 scientific papers dispersed across the nation, including Turkey, Egypt, Iran, Saudi Arabia, Lebanon, Pakistan, the United Arab Emirates, and the Syrian Arab Republic. The publication and citation trends of CBL in Muslim countries

Terms such as service, impact, community service, course and development which are highlighted in purple, are closely interconnected and frequently occur together in the diagram. Following the keyword analysis, the subsequent section will explore the prominent researchers and research in CBL.

reveal critical insights into the academic engagement and impact of different regions. Indonesia, with 49 publications, is the most active country in terms of output, yet it has accumulated only 127 citations. This disparity suggests that while Indonesian researchers are contributing a large volume of work, the scholarly impact of these publications remains limited. Several factors may contribute to this, including a possible focus on local or region-specific studies that have not gained international traction or visibility. Additionally, the quality of the research or the journals in which these studies are published could affect the global reach and citation count. The impact factor of journals significantly influences citation rates. Journals with a higher impact factor generally receive more citations, indicating that the publication venue affects perceived quality and influence (Biglu, 2008).

Malaysia, in contrast, has 30 publications but boasts a higher citation count of 259. This

indicates a stronger influence per publication, suggesting that Malaysian research on CBL may be of higher quality, more relevant to global or regional concerns, or published in journals with broader visibility. Additionally, Malaysia's education system has been progressively focusing on innovative and community-centred approaches (Hamzah et al., 2023), which may align well with global trends, explaining its higher citation impact. On the other hand, Turkey stands out with only 19 publications but the highest citation count, 346. This suggests that while the country's output is lower, its research is of high quality and widely influential in the academic community. The Turkish studies may provide more novel insights or are being published in higher-impact journals, making them highly cited and influential. Turkey's strategic position as a bridge between Europe and the Muslim world may increase the global significance of its research, particularly in developing educational models that integrate Islamic and Western pedagogical practices. Furthermore, international collaboration can

boost citation impact, as research with global relevance is often cited more frequently (Leydesdorff et al., 2019). Similarly, Iran (16 publications, 336 citations) and Egypt (16 publications, 217 citations) also show similar trends to Turkey, where fewer publications are matched by a higher impact, indicating strong influence per paper.

Countries with fewer publications but higher citations (e.g., Turkey, Iran) seem to focus on more globally relevant or higher-quality research, while countries with higher outputs but lower citations (e.g., Indonesia) may need to focus on increasing the global visibility and applicability of their work. The disparities in citation numbers suggest that the academic influence of CBL research is not solely tied to the quantity of publications. Instead, factors such as the relevance of the research, its quality, the journals where it is published, and its global appeal significantly affect its impact (Biglu, 2008; Leydesdorff et al., 2019). Table 6 shows the 10 most actively involved Islamic nations in CBL research.

Table 6: Top 10 geographic origins of CBL research

Country	TP	%	NCP	TC	C/P	C/CP	<i>h</i>	<i>g</i>	Continent
Indonesia	49	27.84%	29	127	2.59	4.38	6	9	Asia
Malaysia	30	17.05%	23	259	8.63	11.26	8	15	Asia
Turkey	19	10.80%	15	346	18.21	23.07	6	15	Europe
Egypt	16	9.09%	12	217	13.56	18.08	6	12	Africa
Iran	16	9.09%	13	336	21.00	25.85	7	13	Asia
Saudi Arabia	11	6.25%	9	139	12.64	15.44	4	9	Asia
Lebanon	7	3.98%	4	64	9.14	16.00	3	4	Asia
Pakistan	7	3.98%	5	97	13.86	19.40	4	5	Asia
United Arab Emirates	6	3.41%	4	11	1.83	2.75	2	3	Asia
Syrian Arab Republic	4	2.27%	4	22	5.50	5.50	3	4	Asia

Abbreviations: C/CP, average citations per cited publication; C/P, average citations per publication; *g*, *g*-index; *h*, *h* index; NCP, number of cited publications; TC, total citations; TP, total number of publications.

Main Institutions

This section analyses the most prominent institutions in CBL research. Table 7 demonstrates the results of the investigation of the leading 10 institutions engaged in CBL research. The Faculty of Medicine is the leading institution for CBL research, succeeded by the American University of Cairo and Suez Canal University. The top

three institutions are all located in Egypt. Interestingly, the top six higher learning institutions exhibit comparable publication counts ($n=6$), while the next four universities also demonstrate similar publication figures ($n=4$). Despite preceding result indicating that Indonesia, Malaysia, and Turkey are the most active countries, the statistics here indicate that the top three most active institutions are all located in Egypt.

Table 7: The 10 most active institutions

Institution	TP	%	Country	NCP	TC	C/P	C/CP	<i>h</i>	<i>g</i>
Faculty of Medicine	5	2.84%	Egypt	4	91	18.20	22.75	4	4
The American University in Cairo	5	2.84%	Egypt	3	11	2.20	3.67	3	3
Suez Canal University	5	2.84%	Egypt	4	91	18.20	22.75	4	4
Universiti Teknologi Malaysia	5	2.84%	Malaysia	5	18	3.60	3.60	3	4
Universitas Gadjah Mada	5	2.84%	Indonesia	4	46	9.20	11.50	3	4
Universitas Sebelas Maret	5	2.84%	Indonesia	3	15	3.00	5.00	1	3
Universiti Teknologi MARA	4	2.27%	Malaysia	3	24	6.00	8.00	2	3
Monash University	4	2.27%	Australia	4	37	9.25	9.25	3	4
American University of Beirut	4	2.27%	Lebanon	3	38	9.50	12.67	2	3
Universitas Pendidikan Indonesia	4	2.27%	Indonesia	2	8	2.00	4.00	2	2

Abbreviations: C/CP, average citations per cited publication; C/P, average citations per publication; *g*, *g*-index; *h*, *h*-index; NCP, number of cited publications; TC, total citations; TP, total number of publications.

Authorship Analysis

Table 8 discloses a list of the 10 most prolific authors in CBL research. Among them, two authors have emerged as the top contributors, namely, Ahmad, I. from University of Malakand and Hosny, S. from Faculty of Medicine. Together, they have authored four papers on CBL research. Notably, while the top two authors are from Pakistan and Egypt,

most prominent authors are affiliated with universities in Iran, such as Shahid Beheshti University, reflecting Iran's significant academic involvement. The four authors from Iran are affiliated with the same medical institutions, which is consistent with previous findings regarding the most active titles, where CBL research is predominantly published in the medical and education fields.

Table 8: The 10 Most productive authors in CBL research

Author Name	TP	%	Affiliation	Country	NCP	TC	C/P	C/CP	<i>h</i>	<i>g</i>
Ahmad, I.	4	2.27%	University of Malakand	Pakistan	2	27	6.75	13.50	3	4
Hosny, S.	4	2.27%	Faculty of Medicine	Egypt	3	77	19.25	25.67	3	3
Atashzadeh-Shoorideh, F.	3	1.70%	Shahid Beheshti University of Medical Sciences	Iran	3	20	6.67	6.67	2	3
Hasanah, N.	3	1.70%	Universitas Jember	Indonesia	1	3	1.00	3.00	1	1
Hosseini, M.	3	1.70%	Shahid Beheshti University of Medical Sciences	Iran	3	20	6.67	6.67	2	3
Said, H.	3	1.70%	Universiti of Teknologi Malaysia	Malaysia	3	13	4.33	4.33	2	3
Zeydani, A.	3	1.70%	Shahid Beheshti University of Medical Sciences	Iran	3	20	6.67	6.67	2	3
Zohari-Anboohi, S.	3	1.70%	Shahid Beheshti University of Medical Sciences	Iran	3	20	6.67	6.67	2	3
Abdelaziz, A.	2	1.14%	Faculty of Medicine	Egypt	2	37	18.50	18.50	2	2
Amer, M. M.	2	1.14%	School of Humanities and Social Sciences	Egypt	2	7	3.50	3.50	2	2

Abbreviations: C/CP, average citations per cited publication; C/P, average citations per publication; *g*, *g*-index; *h*, *h*-index; NCP, number of cited publications; TC, total citations; TP, total number of publications.

Citation Analysis

The top-cited publications in CBL provide a clear picture of influential research areas and their impact. Izadinia's (2013) review in *British Educational Research Journal* leads with 218 citations. This study on student teachers' professional identity has resonated deeply within the field of teacher education, showing the importance of developing a strong professional identity through community-based learning practices. Meanwhile, Akbulut and Cardak's (2012) paper published in *Computers and Education*, follows closely with 208 citations. The research on adaptive educational hypermedia highlights the growing intersection between

technology and personalized learning, emphasizing how digital platforms can enhance community-based educational experiences. The high citation count reflects the increasing reliance on technology to accommodate diverse learning styles.

The top-cited publications in CBL reveal several key themes across diverse disciplines. A significant portion of highly cited research is published in technology and education journals, such as *Computers in Human Behavior* and *Computers and Education*. These papers focus on integrating digital tools and adaptive systems into education, like Karakaya and Demirkan's (2015) work on

collaborative digital environments and Akbulut and Cardak's (2012) content analysis on adaptive hypermedia. This trend indicates that technological innovation is crucial in enhancing community-based learning models.

Another dominant theme is medical education, with Hamad's (1991) study in *Medical Education* and Hosny et al.'s (2013) work in *Medical Teacher*. These studies emphasize the importance of community-oriented medical training, reflecting the relevance of CBL in healthcare education, where hands-on, community-focused approaches are vital. Finally, social responsibility and professional development emerge as key areas in CBL research, with Ali et al.'s (2021) paper in *Journal of Cleaner Production* exploring university social responsibility and Izadinia's (2013) work in *British Educational Research Journal* reviewing student teachers' professional identity. These studies highlight CBL's role in fostering socially responsible and reflective professionals. Table 9 provides a useful resource for researchers and practitioners interested in community-based learning, highlighting key publications in the field.

Table 9: Most cited publications

Authors	Year	Title	Source title	TC
Izadinia, M.	2013	A review of research on student teachers' professional identity	British Educational Research Journal	218
Akbulut, Y.; Cardak, C. S.	2012	Adaptive educational hypermedia accommodating learning styles: A content analysis of publications from 2000 to 2011	Computers and Education	208
Saqr, M.; Fors, U.; Tedre, M.; Nouri, J.	2018	How social network analysis can be used to monitor online collaborative learning and guide an informed intervention	PLoS ONE	86
Ali, M.; Mustapha, I.; Osman, S.; Hassan, U.	2021	University social responsibility: A review of conceptual evolution and its thematic analysis	Journal of Cleaner Production	68
Saleh, N. M.; El-Gaby, M. S. A.; El-Adl, K.; Abd El-Sattar, N. E. A.	2020	Design, green synthesis, molecular docking and anticancer evaluations of diazepam bearing sulfonamide moieties as VEGFR-2 inhibitors	Bioorganic Chemistry	59
Hamad, B.	1991	Community-oriented medical education: What is it?	Medical Education	51
Karakaya, A. F.; Demirkan, H.	2015	Collaborative digital environments to enhance the creativity of designers	Computers in Human Behavior	48
Kardan, A. A.; Aziz, M.; Shahpasand, M.	2015	Adaptive systems: a content analysis on technical side for e-learning environments	Artificial Intelligence Review	37
Hosny, S.; Kamel, M. H.; El-Wazir, Y.; Gilbert, J.	2013	Integrating interprofessional education in community-based learning activities: Case study	Medical Teacher	36
Happonen, A.; Tikka, M.; Usmani, U. A.	2021	A systematic review for organizing hackathons and code camps in Covid-19 like times: Literature in demand to understand online hackathons and event result continuation	Proceedings of 2021 International Conference on Data and Software Engineering: Data and Software Engineering for Supporting Sustainable Development Goals, ICoDSE 2021	33

Abbreviations: TC, total citations.

Conclusion

In conclusion, this study investigated the trend and pattern of CBL research in Islamic countries by looking at the status of publication, the citation pattern, presenting the themes involved, and offering suggestions for future research. Based on the findings presented in this study, it can be concluded that research in CBL has been growing in recent years, with a general trend of increasing number of publications per year, but with inconsistent trends of total citations. In connection with the primary themes of this study, the analysis of terms revealed that the authors predominantly concentrate on concepts associated with human-centric, educational, and academic terminology. Nonetheless, these terms lack focus and descriptiveness, which renders them too vague. Ultimately, it was found that Indonesia and Malaysia are the most active countries in publishing CBL. The research findings have significant implications for educators, administrators, policymakers, and researchers in higher education and work-based learning. Educators can use the results to design CBL programs that foster experiential learning, while administrators can support institutional CBL initiatives, and policymakers can integrate CBL into educational policies. Researchers can build on this study to further explore CBL's impact on student learning and communities. Although based solely on Scopus data, future research should incorporate multiple databases like Web of Science and EBSCO to gain a broader perspective on global CBL research. Additionally, future studies should examine the global impact of CBL on practice and its

effectiveness in achieving learning outcomes.

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