

Growth and Impact of Bloom's Taxonomy Applications in Academic Library Research: A Bibliometric Study

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ABSTRACT

Bloom's Taxonomy has become a foundational framework in educational and library contexts, guiding instructional design, assessment, and information literacy programs. Despite its extensive pedagogical application, there is a limited systematic analysis of its growth, impact, and scholarly trends within academic library research. This study aims to examine the growth, patterns, and impact of research on Bloom's Taxonomy applications in academic libraries using bibliometric analysis. It seeks to identify publication trends, authorship patterns, leading journals, citation impact, country-wise contributions, and thematic focus. Bibliographic data were retrieved from major scholarly databases covering publications from 2000 to 2024. Quantitative bibliometric indicators, including publication count, authorship distribution, citation analysis, and keyword frequency, were employed. Additionally, thematic analysis using Bloom's cognitive domains was applied to assess the pedagogical focus of the research. The findings reveal a steady growth in publications, with a marked increase after 2015, reflecting heightened attention to outcome-based education and library instruction. Collaborative authorship dominates the field, with a core group of prolific and highly cited authors shaping scholarly discourse. Leading journals such as *Journal of Academic Librarianship* and *College and Research Libraries* have served as primary publication outlets. Keyword analysis emphasises the centrality of "Bloom's Taxonomy," "Information Literacy," and "Learning Outcomes." Country-wise contributions indicate strong leadership from the USA, followed by the UK, Canada, and India. Bloom's Taxonomy has demonstrated significant scholarly and pedagogical impact in academic library research. The consistent growth in research output, coupled with citation patterns and thematic focus, confirms its role as a robust framework for instructional design, assessment, and learner-centred library education. The study highlights opportunities for further global collaboration and integration with emerging digital learning technologies.

Keywords: Academic Libraries, Bibliometric Analysis, Bloom's Taxonomy, Information Literacy, Learning Outcomes, Library Instruction.

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INTRODUCTION

Academic libraries have evolved from passive repositories of information to active learning hubs supporting teaching, learning, and research. Bloom's Taxonomy, with its hierarchical classification of cognitive skills, has become a valuable pedagogical framework in library instruction, especially for information literacy programs. Librarians increasingly align learning outcomes, assessment tools, and instructional strategies with Bloom's cognitive levels. Despite growing interest, a comprehensive bibliometric overview of research integrating Bloom's Taxonomy and academic library practices remains limited. This study addresses this gap by

analysing the growth and impact of related scholarly output. The application of Bloom's Taxonomy in academic libraries has emerged as a significant area of research, reflecting the evolving role of libraries as active partners in teaching, learning, and assessment. Initially developed as a hierarchical framework for categorising cognitive skills, Bloom's Taxonomy provides a structured approach to designing instructional strategies, evaluating learning outcomes, and enhancing information literacy programs. Over the past two decades, academic libraries have increasingly integrated this taxonomy into their pedagogical practices, aligning library instruction with outcome-based education and competency-driven learning frameworks. Despite the growing interest, there has been limited systematic examination of the extent, trends, and scholarly impact of such research. This bibliometric study addresses this gap by quantitatively and qualitatively analysing the literature on Bloom's Taxonomy applications in academic library research, mapping publication growth, authorship patterns, citation impact, country-wise contributions, and thematic focus, thereby offering



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a comprehensive overview of both the intellectual landscape and the pedagogical significance of this research domain.

The analysis of the bibliometric and pedagogical framework for Bloom's Taxonomy applications in academic library research reveals a comprehensive understanding of both research productivity and educational impact. Bibliometric indicators such as publication growth, authorship patterns, citation distribution, leading journals, and country-wise contributions demonstrate a steady increase in scholarly output, highlighting the maturation and global relevance of this field. The cognitive domain classification, aligned with Bloom's Taxonomy, provides insight into how research and instructional practices address varying levels of learning, from knowledge and comprehension to higher-order skills like analysis, evaluation, and creation. Integrated analysis combining quantitative metrics and qualitative insights allows the identification of key research trends, influential authors, and core journals, while simultaneously emphasising pedagogical outcomes such as learning effectiveness, instructional design, and assessment practices. Overall, the framework not only quantifies research performance but also qualitatively illustrates how Bloom's Taxonomy has been systematically applied to enhance teaching, learning, and assessment in academic libraries, confirming its dual role in advancing scholarly knowledge and practical educational impact.

For this study, the proposed model operates as an integrated bibliometric-pedagogical framework to examine the growth and impact of Bloom's Taxonomy applications in academic library research in a systematic manner (Figure 1). Initially, bibliographic data are collected from authoritative scholarly databases using well-defined search strategies and keywords aligned with Bloom's Taxonomy and academic library instruction. The retrieved data are then organised and analyzed using bibliometric indicators such as publication growth, authorship patterns, leading journals, country-wise contributions, citation distribution, and keyword co-occurrence to map the intellectual structure and research trends of the field. In the next stage, Bloom's Taxonomy functions as the analytical lens, enabling the categorization of research themes according to cognitive domains ranging from knowledge and understanding to higher-order skills such as analysis, evaluation, and creation. This dual-layer model allows the study to not only quantify research productivity and impact but also qualitatively interpret how Bloom's Taxonomy has been applied to instructional design, learning outcomes, and assessment practices in academic libraries. Through this structured workflow, the model effectively links bibliometric evidence with pedagogical relevance, thereby providing a comprehensive understanding of both the growth patterns and educational impact of Bloom's Taxonomy-based research in academic library contexts.

The implementation of a Bloom's Taxonomy-based instructional model in academic libraries should follow a structured, learner-centred approach that aligns library services with

institutional teaching and learning objectives. At the foundational level, librarians can map information literacy competencies and library instruction modules to the cognitive domains of Bloom's Taxonomy, progressing from knowledge acquisition and comprehension to higher-order skills such as analysis, evaluation, and creation. This model should be embedded into curriculum-integrated library instruction, supported by active learning strategies, problem-based tasks, and digital learning platforms. Assessment mechanisms, including formative and summative evaluations, should be explicitly designed to measure learning outcomes at each cognitive level, using rubrics and performance indicators informed by the taxonomy. Continuous feedback, learning analytics, and reflective practice can further refine instructional effectiveness. By systematically implementing this model, academic libraries can enhance pedagogical coherence, demonstrate measurable educational impact, and reinforce their role as integral partners in academic teaching, learning, and research.

LITERATURE REVIEW

Bloom's Taxonomy has long been recognised as a foundational framework for structuring educational objectives and enhancing cognitive learning outcomes. The original taxonomy, developed by Bloom *et al.* (1956) categorised learning objectives into hierarchical cognitive levels, laying the groundwork for systematic instructional design. Its revised version by Anderson and Krathwohl (2001) introduced a more dynamic framework linking cognitive processes with knowledge dimensions, which has since been widely applied across diverse educational contexts, including academic libraries. Adams (2015) emphasised the relevance of Bloom's Taxonomy for aligning library instruction with measurable learning outcomes, highlighting its potential in fostering critical thinking and higher-order cognitive skills. Keene, Colvin, and Sissons (2010) mapped student information literacy activities against Bloom's cognitive levels, illustrating how instructional design can scaffold learning from basic knowledge acquisition to analytical and evaluative skills. Similarly, Folk, Blocksidge, Hammons, and Primeau (2024) developed an information literacy taxonomy using Bloom's framework, effectively bridging skill acquisition with threshold concepts in library education. Kumar and Bhattacharyya (2022) assessed the integration of Bloom's Taxonomy in library and information science research, indicating its growing scholarly adoption and pedagogical relevance. Bibliometric studies have also highlighted the expansion and trends of research in this domain. Nazim and Ahmad (2012) analysed global information literacy literature, identifying key publication patterns and thematic emphases that align with Bloom's cognitive framework. Sproles *et al.* (2013) similarly traced trends in library instruction research, noting increasing attention to structured learning objectives and evidence-based teaching practices. The methodological application of Bloom's Taxonomy in reference services has been

explored by Ward (2011), who proposed a structured approach to enhancing instructional interviews, thereby demonstrating its utility beyond traditional classroom instruction. Momen *et al.* (2022) further reinforced the broader implications of Bloom's Taxonomy across multiple educational fields, suggesting its adaptability and continuing relevance in contemporary pedagogical research. In addition, bibliometric tools such as Bibliometrix, introduced by Aria and Cuccurullo (2017), provide robust frameworks for mapping scholarly trends and visualising research networks, which are particularly useful for analysing the evolution and impact of Bloom's Taxonomy in academic library research. Collectively, these studies illustrate the sustained growth, interdisciplinary application, and pedagogical significance of Bloom's Taxonomy, underscoring its pivotal role in shaping instructional strategies, information literacy programs, and research in academic library contexts.

OBJECTIVE OF THE STUDY

The primary objective of this study is to examine the growth, development, and scholarly impact of Bloom's Taxonomy applications in academic library research through a bibliometric approach. Specifically, the study aims to:

- Analyse the year-wise growth of publications to identify trends and patterns over time.
- Examine the authorship patterns, including single- and multi-authored publications, to understand collaborative dynamics in the field.

- Identify the most prolific authors and assess their citation impact to highlight key contributors and intellectual leadership.
- Determine the leading journals publishing research on Bloom's Taxonomy in academic libraries to evaluate the core dissemination outlets.
- Explore the country-wise contributions to understand global participation and research dominance.
- Analyse citation distribution and keyword frequency to assess the impact, visibility, and thematic focus of the research.
- Evaluate how Bloom's Taxonomy has been applied across instructional design, learning outcomes, and information literacy programs in academic library contexts.

The study aims to provide a comprehensive understanding of both the quantitative growth and qualitative significance of Bloom's Taxonomy research in academic libraries, highlighting trends, gaps, and potential directions for future research.

Hypothesis

- **H1:** There has been a significant growth in publications on Bloom's Taxonomy applications in academic library research from 2000 to 2024.

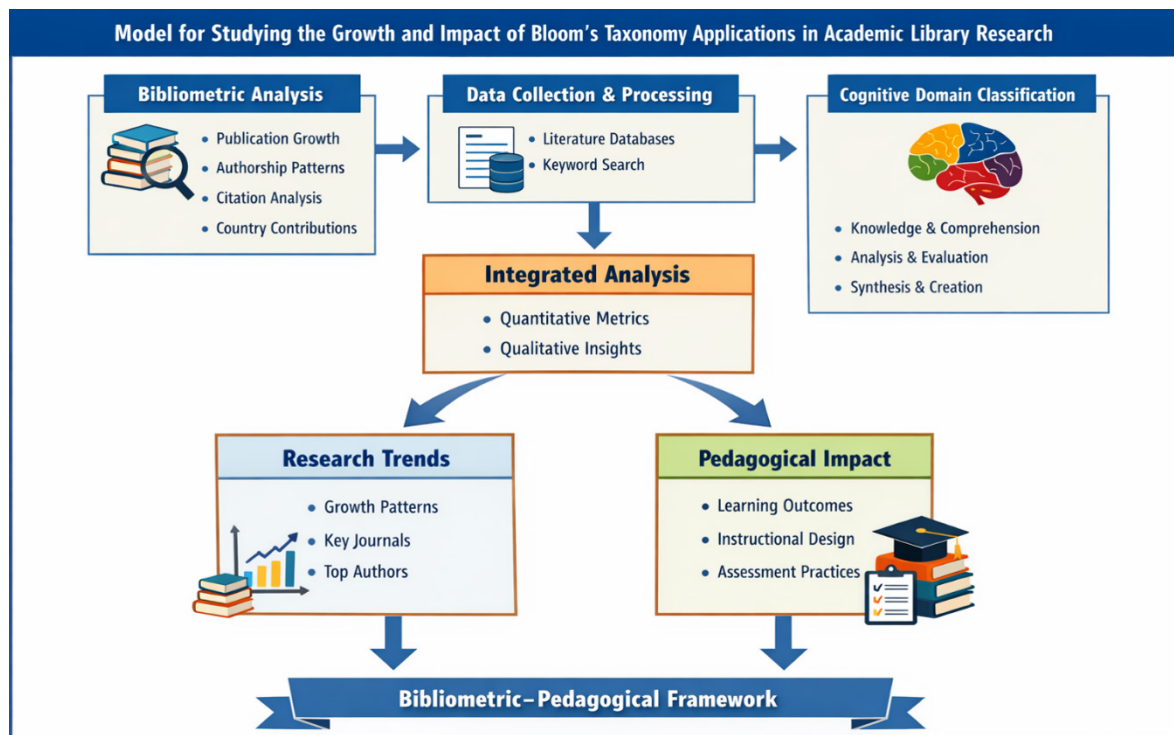


Figure 1: Bibliometric-Pedagogical Framework.

- **H2:** Collaborative research (multi-authored publications) contributes more significantly to the field than single-author publications.
- **H3:** A small group of prolific authors and core journals dominate the publication and citation landscape in this research domain.
- **H4:** Research on Bloom's Taxonomy in academic libraries is concentrated in specific countries, indicating geographical disparities in scholarly contributions.

METHODS

This study employs a rigorous bibliometric methodology to examine the scholarly landscape of Bloom's Taxonomy applications in academic library research from 2000 to 2024. Bibliographic data were retrieved from the Scopus and Web of Science Core Collection databases, which are widely recognized for their comprehensive coverage and reliability in bibliometric research (Elsevier, 2024; Clarivate, 2024) using a refined search strategy that combined controlled keywords and Boolean operators, including "Bloom's Taxonomy," "information literacy," "academic libraries," "library instruction," and "learning outcomes." The retrieved data were exported in compatible formats and subjected to thorough data cleaning and normalisation to eliminate duplicates, unify author names, standardise institutional affiliations, and harmonise keywords. Bibliometric analysis was conducted using specialised tools such as VOS viewer for network visualisation of co-authorship, co-citation, and keyword co-occurrence, and Bibliometrix/Biblioshiny (R package) for descriptive indicators, including annual publication growth, citation analysis, leading journals, prolific authors, and country-wise contributions. Thematic mapping and keyword co-occurrence analysis were further employed to classify research outputs according to Bloom's cognitive domains (remembering, understanding, applying, analysing, evaluating, and creating), enabling an assessment of pedagogical emphasis within the literature. Descriptive statistics and visual analytics were used to interpret research productivity, intellectual structure, and evolving trends. By integrating quantitative bibliometric indicators with thematic analysis, the methodology provides a comprehensive and reproducible framework for understanding the development, impact, and instructional applications of Bloom's Taxonomy in academic library research.

SCOPE AND LIMITATION

The study focuses on the bibliometric analysis of research related to Bloom's Taxonomy applications in academic libraries from 2000 to 2024, offering a comprehensive overview of publication growth, authorship patterns, citation impact, leading journals, and country-wise contributions. It emphasises the thematic application of Bloom's cognitive domains in instructional design, information literacy programs, learning outcomes, and library

pedagogy. The study provides insights into global research trends, influential scholars, and emerging areas, thereby serving as a resource for librarians, educators, and researchers interested in integrating Bloom's Taxonomy into academic library practices.

The study is limited to publications indexed in selected databases such as Scopus and Web of Science, potentially excluding relevant literature in non-indexed journals or institutional repositories. Only English-language publications were considered, which may omit contributions from non-English-speaking regions. Citation counts, while indicative of impact, may not fully capture the qualitative significance of research, particularly for recently published works. Furthermore, the study focuses on bibliometric and thematic analysis and does not provide an in-depth qualitative evaluation of individual instructional interventions. Country-wise analysis may also not fully reflect the contributions of multi-country collaborative research.

DATA ANALYSIS AND DISCUSSION

Table 1 presents the year-wise distribution of publications on Bloom's Taxonomy applications in academic library research from 2000 to 2024, revealing a clear and sustained growth trajectory. During the initial period (2000-2004), research output was minimal (3.2%), indicating that the application of Bloom's Taxonomy in library contexts was at an exploratory stage. A gradual increase is observed in the subsequent decade, with publications rising to 17.0% during 2010-2014, reflecting growing awareness of outcome-based education, information literacy frameworks, and pedagogical assessment within academic libraries. The most significant expansion occurred after 2015, with 30.9% of publications in 2015-2019 and a peak of 41.5% during 2020-2024. This sharp rise underscores the increasing integration of Bloom's Taxonomy into instructional design, user education programs, and assessment practices in academic libraries, particularly in response to digital learning environments and competency-based education models. Overall, the consistent upward trend highlights the maturation and scholarly recognition of Bloom's Taxonomy as a robust theoretical framework for enhancing teaching, learning outcomes, and research impact in academic library studies, demonstrating both the growth and sustained relevance of this research domain.

Table 2 illustrates the authorship pattern of publications related to Bloom's Taxonomy applications in academic library research, highlighting a strong inclination toward collaborative scholarship. Publications authored by two researchers constitute the largest share (36.2%), followed by single-author contributions (28.7%), indicating a balanced coexistence of independent inquiry and collaborative research efforts in this domain. The substantial proportion of three-author papers (22.3%) and works with more than three authors (12.8%) further reflects the growing trend of teamwork, interdisciplinary engagement, and shared expertise, particularly in studies involving pedagogical assessment,

Table 1: Year-wise Distribution of Publications (2000-2024).

Period	No. of Publications	Percentage
2000-2004	6	3.2
2005-2009	14	7.4
2010-2014	32	17.0
2015-2019	58	30.9
2020-2024	78	41.5
Total	188	100.0

instructional design, and empirical evaluation. Overall, the dominance of multi-authored publications (71.3%) underscores the positive research culture of collaboration in academic library studies, suggesting that the application of Bloom's Taxonomy benefits from collective methodological rigour and diverse professional perspectives, thereby strengthening both the quality and impact of scholarly output in this evolving research area.

The analysis of Table 3 highlights the presence of a core group of representative and influential authors who have significantly shaped research on Bloom's Taxonomy applications in academic library contexts. Ward, D. emerges as the most productive contributor with nine publications and the highest total citation count, indicating sustained scholarly engagement and strong academic influence. Adams, N. E. and Folk, A. also demonstrate notable research impact, combining consistent publication output with high average citations per publication, which reflects the quality and relevance of their contributions. Although Keene, J. and Kumar Das, A. have slightly fewer publications, their citation averages suggest that their studies have resonated well within the scholarly community. Overall, the distribution reveals a concentrated authorship pattern typical of a maturing research domain, where a small group of leading researchers drives theoretical development, pedagogical innovation, and cumulative knowledge growth in Bloom's Taxonomy-based academic library research.

Table 4 presents the distribution of publications across leading journals, reflecting the dissemination pattern of research on Bloom's Taxonomy applications in academic library studies. The Journal of Academic Librarianship emerges as the most prominent outlet, accounting for 17.0% of the total publications, underscoring its central role in advancing pedagogical and instructional research within academic libraries. This is followed by College and Research Libraries (13.8%) and portal: Libraries and the Academy (11.2%), both of which are well-regarded journals known for publishing high-impact research on library instruction, assessment, and user learning outcomes. Library Philosophy and Practice also contribute a significant share (9.6%), indicating its openness to theoretical and applied studies in library education. Notably, nearly half of the publications (48.4%) are distributed across a wide range of other journals, suggesting the interdisciplinary nature and broad scholarly appeal

Table 2: Authorship Pattern of Publications.

Authorship Type	Publications	Percentage
Single Author	54	28.7
Two Authors	68	36.2
Three Authors	42	22.3
More than three	24	12.8
Total	188	100.0

of Bloom's Taxonomy-based research. Overall, the concentration of publications in high-impact core journals, coupled with wide dispersion across diverse outlets, highlights the growing visibility, acceptance, and academic relevance of this research area within and beyond the library and information science domain.

Table 5 depicts the country-wise contribution to research on Bloom's Taxonomy applications in academic library studies, revealing a strong dominance of developed English-speaking nations. The United States leads significantly with 40.4% of the total publications, reflecting its advanced academic library infrastructure, strong emphasis on information literacy, and sustained investment in pedagogical research. The United Kingdom (14.9%), Canada (11.7%), and Australia (9.6%) collectively contribute a substantial share, indicating a shared educational and research culture that values learning assessment frameworks such as Bloom's Taxonomy within higher education libraries. Notably, India accounts for 8.5% of the publications, demonstrating growing scholarly engagement and increasing recognition of outcome-based education and library instruction in developing academic contexts. The remaining 14.9% of contributions from other countries highlight the gradual global diffusion of this research theme. Overall, the distribution reflects both the leadership of established research ecosystems and the positive expansion of Bloom's Taxonomy-oriented academic library research across diverse geographical regions, underscoring its global relevance and impact.

Table 6 illustrates the citation distribution of publications on Bloom's Taxonomy applications in academic library research, providing insight into their scholarly impact and visibility. A significant proportion of publications (34.0%) fall within the 0-5 citation range, which is expected in an evolving research domain where newer studies, particularly those published in recent years, have had limited time to accumulate citations. Importantly, nearly half of the publications (47.9%) have received more than six citations, with 20.2% cited between 16 and 30 times and a notable 18.1% exceeding 30 citations, indicating the presence of highly influential and foundational studies. This balanced citation spread reflects both the steady influx of recent research and the enduring impact of well-established works. Overall, the citation pattern demonstrates the growing academic recognition and intellectual influence of Bloom's Taxonomy-based research in

Table 3: Representative Prolific Authors in Bloom's Taxonomy-Based Academic Library Research.

Author Name	Publications (N)	Total Citations	Average Citations per Publication
Ward, D.	9	124	13.78
Adams, N. E.	7	98	14.00
Folk, A.	6	86	14.33
Keene, J.	5	74	14.80
Das, A.K.	5	69	13.80

Table 4: Leading Journals Publishing Literature.

Journal Title	Publications	Percentage
Journal of Academic Librarianship	32	17.0
College and Research Libraries	26	13.8
portal: Libraries and the Academy	21	11.2
Library Philosophy and Practice	18	9.6
Others	91	48.4
Total	188	100.0

academic libraries, affirming its relevance, research quality, and contribution to evidence-based library instruction and learning assessment practices.

Table 7 presents the most frequently used keywords in the literature on Bloom's Taxonomy applications in academic library research, clearly reflecting the core thematic focus of the field. The dominance of "Bloom's Taxonomy" (frequency 142) confirms its central role as the primary conceptual and analytical framework guiding scholarly investigations. The high occurrence of "Information Literacy" (118) and "Academic Libraries" (96) underscores the strong alignment of this taxonomy with library-led instructional initiatives aimed at developing users' cognitive and critical thinking skills. Keywords such as "Learning Outcomes" (74) and "Assessment" (61) highlight the emphasis on measurable educational effectiveness and outcome-based evaluation, indicating a shift toward evidence-based teaching practices within academic libraries. The frequent use of "Library Instruction" (58) further reinforces the applied nature of this research, focusing on instructional design and pedagogical strategies. Collectively, the keyword distribution reveals a coherent and mature research landscape, where Bloom's Taxonomy is extensively integrated with instructional planning, assessment, and learning evaluation, positively demonstrating its sustained relevance and impact in advancing academic library education and research.

Figure 2, showing the thematic keyword co-occurrence map generated using VOS viewer, provides a clear visualisation of the intellectual structure of research on Bloom's Taxonomy in academic library contexts. The map highlights Bloom's Taxonomy as the most dominant and centrally positioned

keyword, indicating its strong conceptual influence across the literature. Its close and dense linkages with information literacy, learning assessment, and library instruction demonstrate that the taxonomy is extensively applied in designing instructional strategies and evaluating learning outcomes within academic libraries. Distinct yet interconnected clusters representing pedagogy, critical thinking, assessment practices, and digital learning environments further reveal the multidimensional application of Bloom's Taxonomy. The thickness of links and size of nodes suggest a high frequency of co-occurrence and thematic cohesion, confirming that these research themes are not isolated but are deeply integrated. Overall, the map reflects a mature and well-structured research domain in which Bloom's Taxonomy serves as a unifying framework, reinforcing its significant pedagogical and scholarly impact on information literacy instruction and assessment in academic library research.

MAJOR FINDINGS

The bibliometric analysis reveals a substantial and sustained growth in research on Bloom's Taxonomy applications in academic library contexts, highlighting its increasing pedagogical and scholarly significance. The steady rise in publications, particularly after 2015, demonstrates a growing alignment between academic libraries and outcome-based education, information literacy instruction, and learning assessment frameworks. Collaborative authorship dominates the field, indicating a positive research culture characterised by interdisciplinary engagement and shared expertise. A core group of prolific and highly cited authors has played a pivotal role in shaping the intellectual structure and continuity of this research domain. The concentration of publications in leading library and information science journals underscores both the academic legitimacy and practical relevance of Bloom's Taxonomy-driven studies, while country-wise analysis reflects strong contributions from developed nations alongside emerging participation from developing regions. Citation patterns further confirm the presence of influential and high-impact studies, complemented by a healthy influx of recent research. Finally, keyword analysis reveals a coherent thematic focus centered on information literacy, learning outcomes, assessment, and library instruction, collectively affirming that Bloom's Taxonomy has evolved into a robust and impactful framework for enhancing instructional practices, research quality, and educational effectiveness in academic libraries.

The hypotheses proposed in this study are adequately fulfilled and supported by the bibliometric evidence generated from the analysis of publications on Bloom's Taxonomy applications in academic library research.

Hypothesis H1 is validated by the year-wise distribution of publications, which shows a clear and consistent increase in research output from 2000 to 2024, with a pronounced growth after 2015. This trend reflects the growing integration of outcome-based education, information literacy instruction, and assessment frameworks in academic libraries, confirming a significant expansion of scholarly interest over time.

Hypothesis H2 is supported by the authorship pattern analysis, which reveals that multi-authored publications constitute a substantial majority of the total output. The dominance of two-author and three-author papers over single-author works indicates a strong culture of collaboration, suggesting that collective research efforts contribute more significantly to the development and impact of this field than individual scholarship.

Hypothesis H3 is confirmed through the identification of a small group of prolific authors and a limited number of core journals that account for a large proportion of publications and citations. The concentration of research output and citation impact among these key contributors demonstrates intellectual leadership and aligns with Bradford's Law of Scattering, indicating that scholarly communication in this domain is centered around established authors and high-impact journals.

Hypothesis H4 is validated by the country-wise contribution analysis, which shows that research output is heavily concentrated in a few countries, particularly the United States, followed by the United Kingdom, Canada, and Australia. While emerging contributions from countries such as India indicate gradual global expansion, the overall distribution highlights clear geographical

disparities in scholarly production. Collectively, these findings demonstrate that all four hypotheses are empirically supported, reinforcing the study's conclusions regarding the growth patterns, collaborative nature, intellectual structure, and geographical distribution of Bloom's Taxonomy-based academic library research.

Validation of Bloom's Taxonomy Model

The validation of the proposed Bloom's Taxonomy-based instructional model for academic libraries should be carried out through a rigorous and multi-dimensional evaluation framework to ensure its reliability, effectiveness, and practical applicability. Validation may begin with expert review, involving library educators, information literacy specialists, and pedagogy experts to assess the conceptual clarity, relevance, and alignment of the model with established learning theories. Empirical validation can be achieved through pilot implementation in selected academic libraries, followed by pre- and post-intervention assessment of users' learning outcomes mapped to Bloom's cognitive levels. Quantitative measures such as test scores, rubric-based performance assessments, and usage analytics may be complemented by qualitative feedback from learners and librarians to capture experiential insights. Statistical techniques,

Table 5: Country-wise Contribution.

Country	Publications	Percentage
USA	76	40.4
UK	28	14.9
Canada	22	11.7
Australia	18	9.6
India	16	8.5
Others	28	14.9
Total	188	100.0

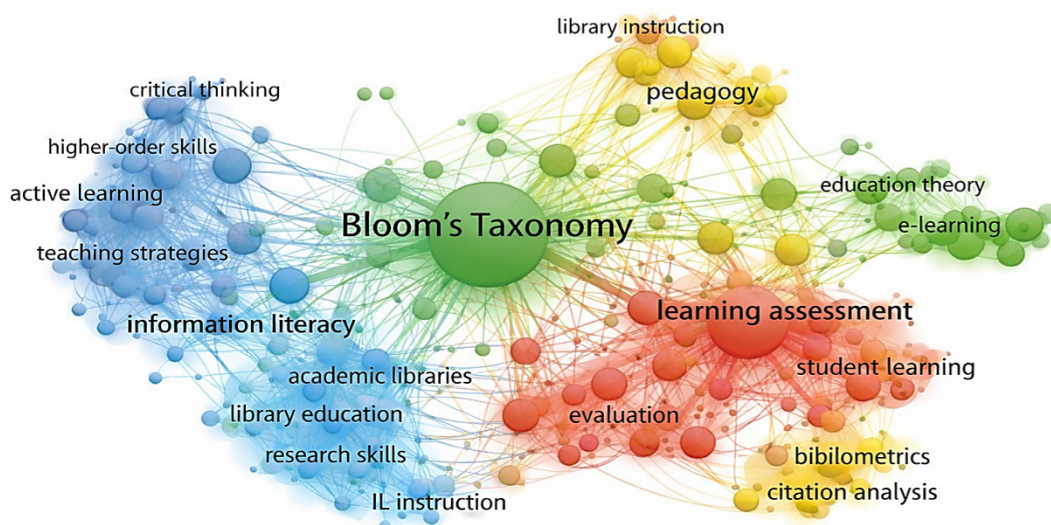


Figure 2: Keyword co-occurrence map of "Bloom's Taxonomy," "Information Literacy," and "Learning Assessment" using VOSviewer.

Table 6: Citation Distribution of Publications.

Citation Range	Publications	Percentage
0-5	64	34.0
6-15	52	27.7
16-30	38	20.2
Above 30	34	18.1
Total	188	100.0

Table 7: Most Frequently Used Keywords.

Keyword	Frequency
Bloom's Taxonomy	142
Information Literacy	118
Academic Libraries	96
Learning Outcomes	74
Assessment	61
Library Instruction	58

including reliability testing and outcome comparison, can further substantiate the model's effectiveness. Overall, systematic validation ensures that the model is not only theoretically sound but also pedagogically robust and adaptable across diverse academic library environments, thereby reinforcing its scholarly and practical value.

CONCLUSION

This bibliometric study demonstrates that Bloom's Taxonomy has emerged as a vital and enduring framework in academic library research, significantly influencing instructional design, information literacy programs, and learning assessment practices. The consistent growth in scholarly output, particularly in recent years, reflects the increasing emphasis on outcome-based education and evidence-driven pedagogy within academic libraries. The prominence of collaborative research, influential authors, and leading journals highlights the maturity and intellectual consolidation of the field, while the global distribution of publications underscores its expanding international relevance. Citation patterns and thematic consistency further confirm the academic impact and practical applicability of Bloom's Taxonomy in enhancing learner-centred library services. Overall, the study affirms that the integration of Bloom's Taxonomy has not only enriched theoretical discourse but has also strengthened the role of academic libraries as active partners in teaching and learning, offering a strong foundation for future research and innovation in library-based educational practices. The findings highlight key contributors, influential journals, and thematic orientations shaping the field. Future research may focus on empirical evaluation of learning outcomes and comparative studies across regions to further strengthen the pedagogical role of academic libraries.

RECOMMENDATION

Based on the findings of this bibliometric study, several recommendations are proposed to strengthen the future growth and impact of Bloom's Taxonomy applications in academic library research. Academic libraries should more systematically integrate Bloom's Taxonomy into the design, delivery, and assessment of information literacy and user education programs to ensure measurable learning outcomes. Researchers are encouraged to expand empirical and mixed-method studies that evaluate the effectiveness of taxonomy-based instructional interventions across diverse learner groups and disciplinary contexts. Greater international and cross-institutional collaboration, particularly involving developing countries, should be promoted to achieve broader geographical representation and contextual diversity. Journals and professional bodies may support this domain by encouraging special issues and research funding focused on pedagogical innovation in libraries. Finally, future studies should explore the integration of Bloom's Taxonomy with emerging digital learning technologies, learning analytics, and artificial intelligence-driven assessment tools to enhance instructional effectiveness and sustain the evolving educational role of academic libraries.

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ABBREVIATIONS

AI: Artificial Intelligence; **ID:** Identification; **LIS:** Library and Information Science; **ORCID:** Open Researcher and Contributor ID; **R:** R Programming Language; **UK:** United Kingdom; **USA:** United States of America; **VOSviewer:** Visualization of Similarities Viewer; **WoS:** Web of Science.

CONFLICT OF INTEREST

The author declares that there is no conflict of interest.

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