



RESEARCH ARTICLE

A Scientometric Study of Quality Assessment and Higher Education

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Abstract

This study evaluates the research publication of Quality Assessment and Higher Education for the period of 2015-2025. The purpose of this study is to analyse the research outcome on QA & HE using scientometrics tools and techniques such as Annual research output by the researcher, kinds of documents, top ten authors, affiliation wise, country wise distribution papers, journal wise and Language wise on QA & HE. The study revealed that the highest number of research papers was published in the year 2025 with 1270(14.49%). The top three journals based on the number of publications were BMC Medical Education with 206 (12.05%), Plos one with 163(9.54%) and Sustainability with 137(8.02%). The majority of publications were articles with 7015 (80.02%) chosen by the researcher. Zhang, Y. with 30 (13.51%) publications and share the 1st place. The top affiliation is the University of Toronto, Canada with 197 (12.20%) publications. The most productive country was The United States of America (2653) publications. "Quality" is the most frequent word with 1563 occurrences from 2015 to 2025. This study will be helpful for further research in the field of scientometrics, library professionals who are working in higher education and quality assessment.

Keywords: Scientometrics, Quality assessment, Research Productivity, WOS Database, higher education, Histcite.

Introduction

The quality assessment is a systematic process of assessing the quality of service provided by the institute/organization to satisfy their stakeholders to meet established standards

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How to cite this article: Prashantha, B.S., Dorairajan, M., Kumar V.U.S., Srinivasaragavan S. (2025). A Scientometric Study of Quality Assessment and Higher Education. The Scientific Temper, 16(10): 4978-4983.

Doi: 10.58414/SCIENTIFICTEMPER.2025.16.10.16

Source of support: Nil

Conflict of interest: None.

(Noaman, *et al.*, 2015). This process involves various aspects such as Quality of teachers, teaching methods, internal assessment, Use of ICT, infrastructure, learning outcome, research productivity, Inspection, Evaluation and reviews to identify any gaps, or areas for improvement. Effective quality assessment is crucial for maintaining reliability, enhancing stockholders satisfaction (Study Smarter., 2025). Quality of higher education is currently a significant issue in the academic community. Monitoring and research advances in the higher education field, analyzing the literature and the contextual situation in the system of higher education (Lazić, *et al.*, 2021). The present study is about the research publications of Quality Assessment and Higher education. This study has been conducted to understand the current trends and growth of literature on QA & HE.

Scientometrics is a type of research methodology used in Library and information Science. Scientometrics can be referred to the "quantitative study of science", communication in science & science policy (Vandana, & Neetu, 2024). Scientometrics is a field which analyses scientific literature & its citations to know the structure of science publication & growth of science at global level. It also knows the Research publication output of a country, institutions and individual author in a particular discipline (Thirumagal, 2021). In this present study evaluate the scientometric analysis of research publications published on Quality Assessment & Higher Education (Senthilkumar, & Muthukrishnan, 2016).

Review Related Literature

Many studies conducted to Scientometrics have been taken up in the past years; a few of the studies are specifically highlighted here with for references.

Daharis et al. (2023) carried out a scientometrics review of global research on technology in physical education. The keywords "technology" and "physical education" were searched from Scopus and WoS databases for the period between 2020 and 2021. A total of 1120 records were retrieved from the both databases. The "Journal of Physics: Conference Series." majorly contributed to technology and physical education. The source that contributed the most to technology and physical education was the "Journal of Physics: Conference Series." The author Mikhail Kolokoltsev has contributed the most to technology and physical education. the most contributed country was China.

Radhakrishnan, S. (2021) examined Scientometric analysis in the Phytochemistry literature. A total of 40699 records were found during 1995 to 2019 The data was extracted from SCOPUS database. This study reveals that the Future Growth of "Phytochemistry literature" outcome is increased from 2349 in the year 2019 to 4751.66 in 2040. The journal titled "Phytochemistry" got the first position with 1890 (4.65%) publication in the Journal productivity. It published 1890 publications which received 70171 citations. Van Staden, J. from South Africa got the first position with 79 publications (0.043%). Among the prolific authors.

Alqurashi & Ahmad (2024) studied Scientometric analysis and knowledge mapping of cybersecurity. The main aim of the study was to comprehend the growth of the academic research output of said theme. Around 9,967 documents were collected from January 2019 to December 2023 and used the Citespace tools were used for analysis. This study reveals that the USA, China, and India were the top contributing countries based on its citation count, and the Chinese Academy of Science, was the top contributing affiliation.

Gupta, & Dhawan, (2019) Carried out analysis of Deep learning research: Scientometric assessment of global publications output during 2004-17.. 106.76% high growth per year from Global deep learning research, A total of 99.74% global publications produced by top 10 countries across the globe in the research field. The highest publications published by China with (29.25%). The majority of the publications were published by Computer Science with (76.85%).

Yazid, et al. (2024) Carried out the Scientometric Analysis Of Mental Health Research Trends Among University Lecturers from 2003 to 2022. The dataset 1,247 records retrieved the WoS database. The study highlights "Nurse Education Today" as the top prolific journal, with McAllister M. as the major contributor within the field of study. Additionally, the Monash University and the University of London were most publications in this research domain.

Ganesh Kumar, & Senthilkumar (2023) studied the productivity and literature output in Information Literacy. This study was analyses the growth of the literature output & information literacy, kinds of documents. The required data was collected by using the WoS database for the period of 2011 to 2023. A total of 2582 records were retrieved. The main subject categories were author's wise publication, country wise productivity, Affiliations wise and the source of publication of the literature. The highest 295 (11.416 %) records were published in the year 2022 and lowest number of documents i.e., 163 records (6.308 %) was published in the year 2011. "Pinto M" published highest number of articles for the study period with 39 records. The concept information literacy is a newly emerging area in the field of library and information science.

Objectives

The purpose of this research is to know research publications output and its trend on Quality Assessment and Higher education in India and across the globe. This study carried out with the following objectives.

- To identify the Annual research productivity
- To examine the authorship productivity
- To analyze the type of documents.
- To trace the major source of journals
- To find out the top twenty countries
- To identify the most funding agency
- To analyse the type of Language
- To find out the top fifteen affiliation
- To analyse the most frequent words

Methodology

The data for the study was accessed from the WoS database, a total of 8767 bibliographical data retrieved for the period of 2015 to 2025 (up to 17th September, 2025). The search term "Quality Assessment and Higher Education" was used to retrieve the relevant data. The downloaded data was analyzed with Histcite, to analyse the data in accordance with the objective of the study. The evaluation was based on parameters including document types, authorship, countries, affiliations, journals, and year wise growth rate.

Data analysis

Year wise scientific production

The table-1 reveals that 8767 research publications were produced in the field of QA and HE, It indicates that an increasing trend from the year 2015 to 2025 (except publications appeared in the year 2023 with 927(10.75)). The most publications published in the year 2025 with 1270(14.49%). This is followed by 2024 with 1163 (13.27%) and 1045 (11.92%) from the year 2022. The study also shows that very less number of research publications were reported in the year 2015 with 437 (4.98%). This is followed by 2016 with 495 (5.65%) and 545 (6.22%) from the year 2017.

Table 1: Year wise scientific production

S. No.	Year	No. of Records	Percentage (%)
1	2025	1270	14.49%
2	2024	1163	13.27%
3	2023	927	10.57%
4	2022	1045	11.92%
5	2021	874	9.97%
6	2020	771	8.79%
7	2019	644	7.35%
8	2018	596	6.80%
9	2017	545	6.22%
10	2016	495	5.65%
11	2015	437	4.98%
		8767	100.0%

Top Twenty Journals

The Table 2 indicates that, the top 20 journals in the field of QA and HE. The top most preferred journals in terms of publications are BMC Medical Education with 206 (12.05%) this is followed by Plos one with 163(9.54%) and Sustainability with 137(8.02%). These 3 journals are highly influential in the field of QA and HE. It is observed from the table-2 that very less percentage of publications among top 20 journals was supportive Care in Cancer with 44(2.57%). This is followed by Nurse Education in Practice with 46(2.66%) and BMC Nursing with 46(2.69%) each.

Form of Document

The Table 3 shows that type of documents published during 2015-2025. The top most 8767 (80.02%) publications were "articles" preferred by the researcher with 7015 (80.02%). The second in the order was 'Review papers' with 1401 (15.98%). and 'Early access' with 197 (2.25%) was in third place. The study also observed that very less research paper published was from Correction publication with 1(0.01%) This is followed by Letter and book chapter with 2(0.02%) each. The study revealed that the highest number of research papers were articles with 7015 (80.02%) compared to other type of publications.

Top Ten Authors

The Table 4 shows that the most articles were published by Zhang, Y. with 30 (13.51%) Followed by Wang, Y. with 27(12.16%), Li, J. and Li, Y. each contributed 25 articles (11.26%). It is also observed from the table that very less number of publications were published by Chen Y with 17(7.66%) and Chen L 17(7.66%) each among top ten authors.

Top Fifteen affiliations

The Table 5 reveals that, the top 15 affiliations in the field of QA and HE. The most research output came from University

Table 2: Top Twenty journals

S. No.	Sources	No. of records	Percentage (%)
1	BMC medical education	206	12.05%
2	Plos one	163	9.54%
3	Sustainability	137	8.02%
4	BMJ open	123	7.20%
5	Assessment & Evaluation in Higher Education	117	6.85%
6	Cochrane database of systematic reviews	109	6.38%
7	BMC public health	82	4.80%
8	International journal of environmental research and public health	80	4.68%
9	Frontiers in public health	67	3.92%
10	Journal of surgical education	67	3.92%
11	Academic medicine	66	3.86%
12	Healthcare	66	3.86%
13	Journal of medical internet research	66	3.86%
14	Frontiers in psychology	61	3.57%
15	Nurse education today	59	3.45%
16	Scientific reports	56	3.28%
17	BMC health services research	48	2.81%
18	BMC nursing	46	2.69%
19	Nurse education in practice	46	2.69%
20	Supportive care in cancer	44	2.57%
Total		1709	100%

Table 3: Form of document

S. No.	Document types	No. of records	Percentage (%)
1	Article	7015	80.02%
2	Review	1401	15.98%
3	Early Access	197	2.25%
4	Proceedings Paper	63	0.72%
5	Editorial Material	43	0.49%
6	Retracted Publication	35	0.40%
7	Book Review	5	0.06%
8	Meeting	3	0.03%
9	Book Chapter	2	0.02%
10	Letter	2	0.02%
11	Correction	1	0.01%
Total		8767	100%

Table 4: Top ten Authors

S. No.	Authors	No. of Records	Percentage (%)
1	Zhang Y	30	13.51%
2	Wang Y	27	12.16%
3	Li J	25	11.26%
4	Li Y	25	11.26%
5	Wang J	24	10.81%
6	Liu Y	20	9.01%
7	Zhang L	19	8.56%
8	Li L	18	8.11%
9	Chen L	17	7.66%
10	Chen Y	17	7.66%
Total		222	100%

Table 5: Top fifteen affiliations

S. No.	Affiliation	No. of records	Percentage (%)
1	University of Toronto, Canada	197	12.20%
2	University of Sydney, Australia	146	9.04%
3	Harvard University, USA	141	8.73%
4	Monash University, Australia	125	7.74%
5	University of Melbourne, Australia	117	7.24%
6	University of Michigan, Usa	108	6.69%
7	Johns Hopkins University, USA	97	6.01%
8	University of California, San Francisco, USA	94	5.82%
9	University of Pennsylvania, USA	86	5.33%
10	University of Queensland, Australia	86	5.33%
11	Mayo Clinic Health System, USA	85	5.26%
12	Mcgill university, canada	85	5.26%
13	Stanford university, usa	85	5.26%
14	University of washington, usa	84	5.20%
15	King's college london, england	79	4.89%
Total		1615	100%

of Toronto, Canada with 197 (12.20%), followed by University of Sydney, Australia with 146(9.04%) and Harvard University, USA with 141 (8.73%). The lowest publication among top 15 affiliation from King's College London, England with 79 (4.89%) followed by University of Washington, USA with 84(5.20%) and the Stanford University, USA with 85 (5.26%).

Top Twenty Countries

The Table 6 shows the research output from top 20 countries. The United States of America (2653) was registered as the

Table 6: Top twenty countries

S. No.	Country/Regions	No. of records	Percentage (%)
1	United States of America (USA)	2653	26.99%
2	People's Republic of China	1181	12.01%
3	United Kingdom(UK)	1051	10.69%
4	Australia	894	9.09%
5	Canada	646	6.57%
6	Germany	457	4.65%
7	Spain	426	4.33%
8	Netherlands	351	3.57%
9	Italy	298	3.03%
10	Brazil	225	2.29%
11	Sweden	183	1.86%
12	France	180	1.83%
13	Saudi Arabia	180	1.83%
14	Switzerland	178	1.81%
15	Belgium	168	1.71%
16	Poland	165	1.68%
17	Norway	162	1.65%
18	India	147	1.50%
19	Denmark	143	1.45%
20	South Korea	143	1.45%
Total		9831	100%

Table 7: Language wise distribution of research publication

S. No.	Languages	No. of Records	Percentage (%)
1	English	8619	98.31%
2	Spanish	47	0.54%
3	German	40	0.46%
4	French	16	0.18%
5	Russian	13	0.15%
6	Portuguese	12	0.14%
7	Afrikaans	4	0.05%
8	Hungarian	3	0.03%
9	Italian	3	0.03%
10	Japanese	2	0.02%
11	Korean	2	0.02%
12	Polish	2	0.02%
13	Turkish	2	0.02%
14	Czech	1	0.01%
15	Dutch	1	0.01%
Total		8767	100%

Table 8: Financial support from top ten funding agency for research publications

S. No.	Funding Agencies	No. of Records	Percentage (%)
1	United States Department of Health Human Services	464	27.47%
2	National Institutes of Health (NIH), USA	422	24.99%
3	National Natural Science Foundation of China (NSFC)	193	11.43%
4	National Institutes of Health Research (NIHR), USA	116	6.87%
5	National Health medical Research Council (NHMRC), Australia	98	5.80%
6	UK Research Innovation (UKRI)	96	5.68%
7	Canadian Institutes of Health Research CIHR	82	4.85%
8	NIH National Cancer Institute (NCI), USA	82	4.85%
9	European Union (EU)	74	4.38%
10	Medical research council (MRC), UK,	62	3.67%
	Total	1689	100%

top productive country in the table. The second highest productive country was the People's Republic of China with (1181) and United Kingdom (UK) with (1051) is in third rank. The study also reveals that very less publication from South Korea with 143 (1.45%) and Denmark with 143 (1.45%) each. It is also noted that India has produced 147 publications during 2015-2025 with which it secured 18th rank.

Language wise Distribution of Research Publication

Table-7 indicates that Language wise distribution of articles on QA and HE. English is most common language of publishing the research output. The majority of researcher preferred to publish their research work in English language. It is observed from the table-7, the most of the articles were published in English language with 8619 (98.31%). followed by Spanish with 47 (0.54%) and German with 40 (0.46%). The study also noted that very less number of publication were published in Dutch and Czech Language 1 (0.01%) each.

Financial Support from Top Ten Funding Agency for Research Publications

The study has also identified the top ten funding agencies which have funded the research work on QA and HE. The Table 8 shows that out of 8767 papers, the total numbers produced during the study period, 1689 are published from top ten funding agencies. The data are presented in Table 8.

It is observed from the table-8 that the highest number of publications are those supported by United States

Table 9: Most frequent words

S. No.	Keyword	No. of records	Percentage (%)
1	Quality	1563	14.42%
2	Assessment	1478	13.63%
3	Education	1393	12.85%
4	Review	1288	11.88%
5	Systematic	1035	9.55%
6	Health	939	8.66%
7	Patients	839	7.74%
8	Care	795	7.33%
9	Based	781	7.20%
10	Analysis	730	6.73 %
	Total	10841	100%

Department of Health Human Services (27.47%) followed by the National Institutes of Health (NIH) USA (24.99%). National natural science foundation of china NSFC has occupied the third place. The table also shows that 3.67% have been sponsored by Medical research council (MRC) UK. The Indian Council of Medical Research (ICMR) has funded for 5 research publications on QA & HE and it is occupied the 160th place in the rank.

Table 9 shows that the ten most common word occurrences during the study period. The term "Quality" appears most frequently, with a total of 1563 occurrences. The second most common word is "Assessment," which has 1478 occurrences. The third most frequent word is "Education," recorded at 1393 occurrences. The study also indicated that the less frequent words among the top ten are "Analysis" (730 occurrences), "Based" (795 occurrences), and "Care" (839 occurrences).

Conclusion

This study assess the literature growth on QA and HE research publications. The majority of publications published in the year 2025 with 1270(14.49%). (Table -1) The top source of journals in terms of research publications are BMC Medical Education with 206 (12.05%) this is followed by Plos one with 163(9.54%) and Sustainability with 137(8.02%). (Table -2) The highest 7015 (80.02%) publications were "articles" chosen by the researcher. The second highest in the order was 'Review papers' with 1401 (15.98%). and 'Early access' with 197 (2.25%) was in the third place from table -3. the highest papers were published by Zhang, Y. with 30 (13.51%) Followed by Wang, Y. with 27(12.16%), Li, J. and Li, Y. each contributed 25 articles (11.26%) from (Table-4). The highest research publication came University of Toronto, Canada with 197 (12.20%), followed by University of Sydney, Australia with 146(9.04%) and Harvard University, USA with 141 (8.73%) from the table-5. The United States of America was ranked

first country with (2653). The second ranked productive country was the People's Republic of China with (1181) and United Kingdom(UK) with (1051) is in third rank (Table-6). The most of the articles were published in English language with 8619 (98.31%) and very few publication from other than English language it percentage is 1.69% (Table-7). It is noted that the highest number of publications were supported by The United States Department of Health Human Services with (27.47%) publications (Table-8). The word "Quality" is the most frequent word with 1563 occurrences. The second most frequent word is "Assessment" with 1478 occurrences. The third most frequent word is "Education" with 1393 occurrences (Table-9).

The Findings and Recommendations of the Study are Detailed below

The most number of publications published in the year 2025 with 1270(14.49%). India stands at 18th rank during period of 2015-2025. The Indian Council of Medical Research (ICMR) has funded for 5 research publication for QA & HE and spotted at 160th place in the research funding categories. This study helps researcher, assessors, academics, stakeholders and policymakers in the field of higher education, Library professional who are working in the field of Higher education, assessment & accreditation bodies to know the research trends in Quality Assessment and higher education field. Therefore, it is suggested that The Indian Research scholars, academics and scientific community in the higher education sector have to collaborate more research on quality assessment and higher education with other higher education sector form rest of the world. And Indian funding agencies has to contribute more fund for research on QA and HE. India has to increase online publication trend for greater visibility. These kind of studies helps to identify the research gaps, developments, and future policy decisions.

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