

Visualization Of Education Journals in Scimago: An Analysis of First Quartile (Q1) Journals

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Abstract—The primary objective of the study is to analyse the 406 Q1 journals in Education in the SCImago Journal & Country Rank (SJCR) database for 2025. In the present study, the best Q1 Education journals are evaluated according to their main scientometric indicators, namely the SJCR indicator, H-index, and two-year citation data (Citations per Document). It also investigates the distribution of these high academic outputs at the regional, national and publisher levels. The results indicate that the International Journal of Educational Technology in Higher Education has the highest SJCR value of 7.947 among Q1 Education journals, and the highest citation rate of 50.77 citations per document in three years. In terms of historical scholarly influence and citation range, the journal Child Development was found to have the highest H-index of 309. In terms of geography, most of the Q1 publications are from Western Europe and North America. The main source countries are the UK and the USA, with commercial publishing houses (e.g. Routledge, Springer, Elsevier and SAGE) playing a significant role.

Index Terms—Cite Score, H-Index, Impact Factor, Education Journal, SCImago, SJCR

I. INTRODUCTION

Quantitative metrics have become an important benchmark for evaluating, comparing, and ranking academic journals across disciplines. These scientometric measures offer insight into the relative impact of academic journals by evaluating citation distributions, productivity trends and network prestige. Clarivate's Web of Science (WoS) and Elsevier's Scopus are the most important bibliographic citation indices in the world.

Leveraging the Scopus database, the SCImago research group comprising researchers from the Consejo Superior de Investigaciones Científicas (CSIC) and the Universities of Granada, Extremadura, Carlos III, and Alcalá de Henares developed the

SCImago Journal & Country Rank (SJCR) portal (<http://www.scimagojr.com>). The SJCR metric assesses scientific prestige by weighting citations according to the subject field, quality, and reputation of the citing source. The present study provides a scientometric analysis of all 406 Quartile 1 (Q1) journals categorized under the Education subject field in the 2025 SCImago release.

II. SCIMAGO QUARTILES AND SCOPUS CITESCORE PERCENTILE

According to the journal's impact index, SJCR categorises journals within each topic area into quartiles (Q1–Q4). Q1 denotes the upper 25% of the SJCR distribution (99th – 75th CiteScore Percentile), Q2 signifies the middle-high SJCR distribution (ranging from 50% to the top 25%, specifically 74th – 50th CiteScore Percentile), Q3 indicates the middle-low SJCR distribution (spanning from 75% to the top 50%, namely 49th – 25th CiteScore Percentile), and Q4 represents the lowest SJCR distribution (the bottom 25%, or 24th – 0 CiteScore Percentile).

III. REVIEW OF LITERATURE

Singh and Pandita (2017) examined the growth of Indian research journals indexed in the SCImago Journal and Country Ranking using SCOPUS data from 2005 to 2014. The study includes Indian research journals indexed in SCOPUS over the last ten years, the growth in the number of indexed journals per year, classification of Indian research journals indexed in SCOPUS by subject, and India's contribution of journals indexed in SCOPUS on a continental and global scale. The study revealed that India is the 6th-largest country in terms of the number of journals (452) listed in the SCImago citation index.

Sudhi Vijayan and Renjith (2017) have analysed journal rankings in the field of Education using the SCImago Journal & Country Ranking for 2015. The study showed a significant relationship among various components of LIS journals and compared the h-index of open-access journals with that of subscription-based journals. The article also proposes a regression method for forecasting the h-index using relevant predictor variables.

In another paper, Renjith and Sudhi Vijayan (2018) analyzed the h index and SJR of 10 Education journals of the Asiatic region as appeared in the SJR database for the period 2006-2015. Citations, self-citations and citations without self-citations are also analyzed. The study found that the Taiwan Education journal 'Journal of Information Science and Engineering' has the highest average h index. The Indian LIS journal 'Annals of Library and Information Science' has the highest SJR value among the Education journals from the Asiatic region during the period. Scopus CiteScore metrics provide inclusive, obvious and contemporary insights into journal impact.

Renjith and Shihab (2018) focused on the analysis of CiteScore, Citations and SJR of LIS journals of Asiatic Region based on Scopus CiteScore metrics databases for the period 2011-2015. Correlation among these metrics and difference in metrics among LIS journals are also presented in the study. Open access journals in LIS enable speedy publication of research findings on emerging trends and trendy topics in the subject field. Renjith (2018), in another paper, investigated the trend of open access LIS journals' metrics, namely SJR, h index and total citation count based on SCImago for the period 2012-2016. It is observed that scientometric indicators of open access journals remain steady during the study period. Sabha and Bano (2021) used the SJR database to analyze journal ranking and the H index of the Health Profession journals. The coverage of these journals in Scopus and country ranking in the field of Health Profession are also analyzed in the paper.

IV. OBJECTIVES

1. To identify the growth pattern of Q1 Education journals in SCImago Journal and Country Rank database from 1910 to 2025

2. To determine the top Q1 Education journals ranked by their primary scientometric metrics: SJR indicator, H-index, and Citations per Document (2 years).
3. To examine the continent/region-wide distribution and performance of Q1 Education journals.
4. To evaluate the country-wise contribution and productivity of Q1 Education journals.
5. To map the leading publishers responsible for publishing Q1 Education serials globally.

V. METHODOLOGY

The dataset was obtained from the SCImago Journal & Country Rank 2025 edition under the subject category "Education". A total of 406 unique journals classified within Quartile 1 (Q1) were extracted and analyzed out of total 1596 journals from all Q1-Q4 journal list retrieved on 14.10.2026.

5.1 Scientometric Indicators

The following metrics were collected for each journal.

- Rank from SCImago. The rank is based on the weighted citations that a publication receives. The weight of a citation is associated with the specific academic field and the prestige (SJR) of the journal issuing the citation.
- CiteScore is the average score that articles published in the journal over the last three years have received.
- H index (Hirsch's h index): The maximum number of (h) such that the number of publications with at least "h" citations is equal to "h" and the other publications have less than "h" citations.
- The Journal Impact Factor (JIF) is the average number of citations per article for articles published in a given journal in the previous 3 years.

VI. ANALYSIS AND INTERPRETATION

A total of 406 journals comprise the Q1 tier in the Education subject category for 2025. Out Of these 406 high-impact journals with 69 journals (17.0%) are indexed as Open Access (OA) and 337 journals (83.0%) operate under traditional subscription or hybrid publication models are considered.

6.1 Growth of Quartile 1 (Q1) Journals in SCImago

The longitudinal coverage trajectory of the 406 Quartile 1 (Q1) Education journals indexed in the 2025 SCImago database exhibits a sustained upward trend: from a few seminal titles in the early 20th century (including the Journal of Educational Psychology, indexed since 1910), the number of indexed journals went from 53 in 1970 to 241 by 1999, exceeded 328 by 2010, and reached a total of 406 Q1 journals in 2025. However, within this top quartile, the uptake of open access (OA) publishing has increased substantially since 2010, from just 20 OA journals (6.1% of the active cohort) in 2010 to 69 titles (17.0% of all Q1 Education publications) in 2025, indicating a slow but steady movement toward open science paradigms among leading educational research that still benefits from prestige via citations.

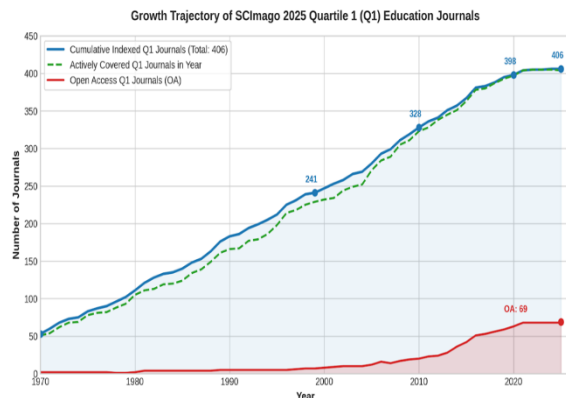


Figure -1: Growth Trajectory of Q1 Education Journals in SCImago

6.3 Scientometric Indicators of Q1 Education Journals in SCImago 2025

The scientometric indicators of Q1 journals in Education are categorized under the following headings.

6.3.1 SCImago Journal Ranking Indicator (SJR)

Table 1 lists the top 10 Quartile 1 (Q1) Education journals for 2025, ranked by SCImago Journal Rank (SJR), along with their respective countries of origin and H-index. The information highlights a special focus on educational technology and artificial intelligence. The Netherlands is ranked first in the International Journal of Educational Technology in Higher Education (SJR 7.947; H-index 97) and Computers and Education: Artificial Intelligence (SJR 7.083; H-index 86). Other technology-oriented

journals, such as Computers & Education (SJR 4.434), Smart Learning Environments (SJR 4.239), and the British Journal of Educational Technology (SJR 3.83), also attest that digital learning disciplines are the most highly cited in current educational research.

Sl. No.	Journal Title	Country	SJR (2025)	H-index
1	International Journal of Educational Technology in Higher Education	Netherlands	7.947	97
2	Computers and Education: Artificial Intelligence	Netherlands	7.083	86
3	Review of Educational Research	United States	5.040	210
4	Educational Psychology Review	United States	4.840	172
5	Computers and Education	United Kingdom	4.434	267
6	Strategic Organization	United Kingdom	4.360	88
7	Educational Research Review	United Kingdom	4.291	128
8	Smart Learning Environments	United Kingdom	4.239	54
9	British Journal of Educational Technology	United Kingdom	3.830	143
10	International Journal of STEM Education	Switzerland	3.316	78

Table -1: Top SJR of Ten Q1 Education Journals in SCImago 2025

Most of the top group are Western nations. The United Kingdom leads the pack with five titles. The United States has two, as does the Netherlands. Switzerland has one. Older review and psychology journals show a stronger cumulative historical impact, as reflected in their H-indices, while niche educational technology journals lead in current SJR prestige. Interestingly, Computers & Education has the highest H-index on this list at 267, higher than those of the United States' Review of Educational Research (210) and Educational Psychology Review (172). This suggests

a meaningful balance between fast-emerging digital research topics and long-standing core academic scholarship.

6.3.2 H-index (Hirsch's h index)

The h-index was developed by Hirsch in 2005 as a new measure to assess a researcher's capabilities (Hirsch, 2005). This measure is calculated by summing all citations received by the works of a given scientist. If we rank these documents by the number of citations they have received, and if h papers are cited at least h times, then the largest value of h is the h-index of that scholar. The h-index can be applied to the set of articles published by a given journal in a given year, so it is a journal metric.

Table 2 presents the top ten Quartile 1 (Q1) Education journals ranked by their Hirsch index (H-index), countries of origin, and SCImago Journal Rank (SJR) for the year 2025. This measure reflects both the cumulative scholarly contribution and the overall citation impact of an entire career. The American Journal of Child Development has a high H-index of 309 (SJR 1.924), followed by the Journal of Educational Psychology (H-index 274; SJR 2.643) and the UK journal Computers & Education (H-index 267; SJR 4.434). The important citation impact of foundational developmental and behavioural research is an example of this. The main journals are Academic Medicine and Review of Educational Research, both at 210, with Journal of Vocational Behaviour close behind at 209.

Sl. No.	Journal Title	Country	H-index	SJR (2025)
1	Child Development	United States	309	1.924
2	Journal of Educational Psychology	United States	274	2.643
3	Computers and Education	United Kingdom	267	4.434
4	Academic Medicine	United Kingdom	210	1.420
5	Review of Educational Research	United States	210	5.040
6	Journal of Vocational Behavior	United States	209	3.075

7	Teaching and Teacher Education	United Kingdom	185	1.779
8	Medical Education	United Kingdom	180	1.517
9	Journal of Research in Science Teaching	United States	174	1.939
10	Educational Psychology Review	United States	172	4.840

Table 2: Top 10 Q1 Education Journals Ranked by H-Index

Country-wise, the top ten serials are limited to the United States (six titles) and the United Kingdom (four titles). This suggests a concentration of historical impact in the Anglo-American sphere. Notably, the lifetime citations do not necessarily correspond to the current SJR prestige. Child Development is the leader in H-index, but Review of Educational Research is the leader in SJR (5.040), followed by Educational Psychology Review (SJR 4.840; H-index 172). Furthermore, some journals, such as Teaching and Teacher Education (185), Medical Education (180), and Journal of Research in Science Teaching (174), underscore the continued importance of clinical and pedagogical areas in educational research.

6.3.4 Impact Factor (IF)

The Eugene Garfield introduced the notion of the impact factor in 1955 (Garfield, 1955). This idea resulted in the development of the Science Citation Index (SCI) in 1964, the first quantitative assessment of scholarly works. This index appears annually in the Journal Citation Reports (JCR), currently maintained by Clarivate Analytics, and is widely used in academic circles.

The impact factor (IF) is a measure of how often the average article in a journal is cited in a given year. It is used to count how many times articles from a journal are cited to assess the journal's importance or rank. One way to evaluate a journal's impact factor is to find out the average rate of citations of articles published in the last two years within one year. Table 3 shows the main factors influencing the 10 Q1 Education journals, according to SCImago 2025.

Sl. No.	Journals SJR	IF 2025	Publisher
1.	Computers and Education: Artificial Intelligence	41.40	Elsevier B.V.
2.	International Journal of Educational Technology in Higher Education	40.52	Springer Netherlands
3.	Smart Learning Environments	26.68	SpringerOpen
4.	Computers and Education	18.05	Elsevier Ltd
5.	International Journal of Artificial Intelligence in Education	17.76	Springer US
6.	Review of Educational Research	17.49	SAGE Publications Inc.
7.	Technology in Society	17.13	Elsevier Ltd
8.	Educational Research Review	16.97	Elsevier Ltd
9.	Studies in Science Education	16.38	Taylor and Francis Ltd.
10.	British Journal of Educational Technology	16.23	Wiley-Blackwell Publishing Ltd

Table -3: Top Impact Factor of Ten Q1 Education Journals in SCImago 2025

Table 3 displays the top 10 Quartile 1 (Q1) Education journals, categorised by Impact Factor (IF) for 2025, along with their respective publishers. This citation metric measures the average number of citations received in a particular year by papers published in the journal during the two preceding years. The top of the ranking is occupied by journals with amazingly high impact factors, such as Computers and Education: Artificial Intelligence (IF 41.4), published by Elsevier

B.V., and the International Journal of Educational Technology in Higher Education (IF 40.52), published by Springer Netherlands. The leading scores reflect the increasing research interest and citation velocity of educational technology, automated learning systems, and artificial intelligence in current educational research.

The rankings below include digital education journals and top reviews, such as Smart Learning Environments (IF 26.68), Computers & Education (IF 18.05), and Review of Educational Research (IF 17.49). From a publisher's perspective, the roster is heavily skewed toward large commercial publishers. Four of the top ten titles are published by Elsevier entities, three by Springer imprints, and one each by SAGE Publications, Taylor and Francis and Wiley-Blackwell. It demonstrates that the leading alliances in academic publishing continue to be successful in collecting the most cited education journals, deftly connecting specialised technology issues with reputable reference models.

6.4 Continent-wise Analysis of Q1 Education Journals in SCImago 2025

The table displays the geographical distribution and scientometric metrics of the 406 Quartile 1 (Q1) Education journals in SCImago in 2025, including the number of journals, percentage distributions, average SJR, average H-index and average citation frequencies. The results show a high geographical concentration, with Western Europe and North America accounting for 359 publications, or 88.43% of the total. Western Europe is the leading producer, with 223 journals (54.93%), with an average SJR of 1.408, a mean H-index of 76.57 and 5.56 citations per publication. Northern America is the second with the highest overall authority with a mean H-index of 78.50 and SJR of 1.309 with 136 journals (33.50%).

Sl. No.	Region	No. of Journals	% Share	Mean SJR (2025)	Mean H-Index	Mean Cites
1	Western Europe	223	54.93%	1.408	76.57	5.56
2	Northern America	136	33.50%	1.309	78.50	4.41
3	Asiatic Region	20	4.93%	1.096	46.15	6.09
4	Latin America	10	2.46%	0.941	38.80	4.41
5	Pacific Region	9	2.22%	1.077	57.00	4.09
6	Eastern Europe	5	1.23%	1.134	48.00	4.54
7	Middle East	3	0.74%	1.402	48.33	5.25
Total		406	100.0%	1.343	73.84	5.15

Table -4: Top Continent-wise Analysis of Q1 Education Journals

In contrast, the Asiatic Region contributes 20 journals (4.93%), Latin America 10 (2.46%), the Pacific Region 9 (2.22%), Eastern Europe 5 (1.23%) and the Middle East 3 (0.74%). Curiously, while the Asiatic Region has a lower average H-index (46.15) than other regions, it leads all others in citation velocity, with an average of 6.09 citations per document. Publications from the Middle East have a high prestige, with a mean SJR of 1.402. Western centres are ahead in terms of volume and history (average SJR 1.343; H-index 73.84; citations 5.15) compared with international standards, while Asian and Middle Eastern journals are rapidly growing in citations.

6.5 Country -wise Analysis of Q1 Education Journals in SCImago 2025

Table 5. Distribution by country and by scientometric metrics of the 406 Quartile 1 (Q1) Education journals in SCImago for 2025. Journal count, percentage distribution, mean SJR, mean H-index, and mean citations. The results reveal a strong Anglo-American dominance: 324 serials, i.e., 79.81% of all premier titles worldwide, are produced by the United Kingdom and the United States. The United Kingdom is the top producer, with 188 journals (46.31%), an average SJR of 1.378, an H-index of 76.71, and 5.48 citations per publication. The United States is ranked second, with 136 journals (33.50%), a high cumulative impact, an H-index of 78.50, and an SJR of 1.309.

Sl. No.	Country	No. of Journals	% Share	Mean SJR (2025)	Mean H-Index	Mean Cites
1	United Kingdom	188	46.31%	1.378	76.71	5.48
2	United States	136	33.50%	1.309	78.50	4.41
3	Netherlands	16	3.94%	1.956	82.56	8.87
4	Germany	10	2.46%	1.074	67.50	3.51
5	Switzerland	8	1.97%	1.637	78.88	6.13
6	Australia	8	1.97%	1.094	60.12	4.16
7	Spain	7	1.72%	1.164	49.86	3.65
8	Chile	4	0.99%	0.817	19.50	3.87
9	Canada	3	0.74%	1.114	38.33	4.41
10	Turkey	3	0.74%	1.402	48.33	5.25
Others (18 countries)		23	5.66%	1.076	47.96	4.90
Total		406	100.0%	1.343	73.84	5.15

Table -5: Top Continent-wise Analysis of Q1 Education Journals

The most relevant centre is the Netherlands, with 16 journals (3.94%), the highest national average SJR (1.956), average H-index (82.56) and citations per document (8.87). Next come Germany and Switzerland with ten and eight titles, respectively. Swiss publications have high citation prestige (mean SJR: 1.637; mean citations: 6.13). The rest are Australia (8), Spain (7), Chile (4), Canada (3), Turkey (3) and 18 other countries (23 journals). Overall, the UK and the US lead in publishing output, but continental European centres achieve the greatest citation impact per journal in Q1 educational research.

6.6 Publisher-wise Analysis of Q1 Education Journals in SCImago 2020

This table shows the breakdown of the 406 SCImago Quartile 1 (Q1) Education journals for 2025 by publishers and their scientometric performance,

including the number of journals, percentage distribution, average SJR, average H-index, and average citation. Publishing is highly concentrated commercially: the five largest publishers publish 280 magazines and represent 68.95% of the world's total. In terms of numbers, Routledge / Taylor & Francis is the leader with 107 titles (26.35%), an average SJR of 1.189 and an H-index of 67.07. Elsevier (49 journals; 12.07%) and Springer (48 journals; 11.82%) have a higher qualitative impact. Elsevier is the publisher with the highest average SJR (1.905), average H-index (118.06) and citation velocity (7.91).

SAGE Publications and Wiley-Blackwell have large portfolios, with 42 (10.34%) and 34 (8.37%) journals, respectively, and impressive cumulative H-index scores of 77.29 and 87.21. Other leading ten publishers are Emerald (12), MDPI (6), BioMed Central (5), Frontiers Media (4) and Oxford University Press (4).

Independent and university presses together account for 95 journals (23.40%). Importantly, traditional commercial and academic institutions have a higher average SJR prestige than open-access publishers,

such as MDPI (0.871). The findings suggest that the bulk of significant educational research remains dominated by large multinational publishing conglomerates.

Sl. No.	Publisher Entity	No. of Journals	% Share	Mean SJR (2025)	Mean H-Index	Mean Cites
1	Routledge / Taylor & Francis	107	26.35%	1.189	67.07	4.14
2	Elsevier (Ltd / B.V.)	49	12.07%	1.905	118.06	7.91
3	Springer (Netherlands / New York / Open)	48	11.82%	1.635	76.54	6.22
4	SAGE Publications (Inc. / Ltd)	42	10.34%	1.345	77.29	4.19
5	Wiley-Blackwell Publishing Ltd	34	8.37%	1.332	87.21	4.79
6	Emerald Group Publishing Ltd	12	2.96%	1.004	55.42	4.38
7	MDPI AG	6	1.48%	0.871	74.00	4.14
8	BioMed Central (BMC)	5	1.23%	1.111	82.20	4.79
9	Frontiers Media S.A.	4	0.99%	0.999	67.25	3.51
10	Oxford University Press	4	0.99%	1.408	75.75	5.17
	Other	95	23.40%	1.144	53.64	4.88
	Total	406	100.0%	1.343	73.84	5.15

Table -6 Publisher-wise Analysis of Q1 Education Journals

VII. CONCLUSION

This scientometric assessment provides a detailed quantitative analysis of the 406 quartile 1 (Q1) Education journals listed in the 2025 SCImago Journal & Country Rank database. The empirical findings reveal a significant thematic shift in educational research, characterised by the fast development of educational technology, digital pedagogies and artificial intelligence. The Hirsch index suggests that the most influential journals in the aggregate lifetime impact of seminal developmental psychology research and general educational policy journals, such as *Child Development* and *Review of Educational Research*, are among the most influential. However, recent citation patterns are dominated by technology-oriented journals. It is interesting to note that journals such as *International Journal of Educational Technology in Higher Education* and *Computers & Education: Artificial Intelligence* achieve strong results in prestige evaluations, including the SCImago Journal Rank (SJR) and the short-term Impact Factor. Also, the longitudinal growth trajectory indicates a strong increase in the educational literature and a fast shift toward Open Access models, gradually improving academic dissemination.

The assessment shows a high level of systemic concentration in the domain of educational research, in both geography and structure. More than 88% of all

Q1 Education serials come from Western Europe and Northern America combined. The United Kingdom and the United States are the main transatlantic hubs for academic dissemination. At the same time, major commercial publishers, especially Routledge/Taylor & Francis, Elsevier, Springer and SAGE, account for over two-thirds of the indexed Q1 publications, indicating significant institutional consolidation. Still, beyond these primary areas, some notable performance patterns emerge: The citation velocity per publication is impressive in the Asian region. The Netherlands and Switzerland have the highest qualitative citation impact per journal in European countries. The findings offer a data-based foundation for educational researchers, academic librarians, and policy stakeholders to choose journals wisely, evaluate institutional effectiveness, and understand the evolving global landscape of educational publishing.

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