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Scientometric analysis of psychology literature from 1972-2008

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Abstract

In the present study an attempt has been made to analyzed the various bibliometric components of the articles published in the Psychology literature from 1972-2008. The study identifies the research trend, characteristics growth pattern of Psychology literature. India has produced a total of 11,604 papers with a 0.64%. The average number of publications per year by India is 313.62 papers with a 0.02%. The highest number of publications was found by India is 952 papers during the period of 1988, with a cumulative 53.57%. Germany has produced a total of 56,190 papers with a 3.12%. The average number of publications by Germany is 1518.65 papers with a 0.08%. The highest numbers of publications was found by Germany is 4006 papers during the period of 1999, with a 60.22%. The 30 Indian contributors have contributed a total of 1468 papers with an average 39.68%. 'Verma, S.K.' has contributed highest papers i.e. 124 papers with as 8.45%. The 30 German contributors have contributed a total of 2549 papers with an average 68.89%. 'Schwarz, Norbert' has contributed highest i.e. 145 papers with a 5.69%. The 30 Indian institutes produced a total of 4643 papers with an average 125.49%. 'National Institute of Mental Health & Neuro- Sciences' produced a highest i.e. 775 papers with a 16.68%. The 30 German institutes produced a total of 16,506 papers with an average 446.11%. 'Free University Berlin' has produced highest i.e. 1707 papers with a 10.34%. The 30 core journals preferred for publication in India published a total of 6679 papers with an average 180.51%. The Indian journal 'Psychological Studies' published highest i.e. 620 papers with a 9.28%. The 30 core journals preferred for publication in Germany published a total of 12,669 papers with an average 342.40%. The German journal 'Nervenarzt' has published highest i.e. 1096 papers with a 8.65%. The language wise distribution of publications in India, English produced highest i.e. 9429 papers with a 99.89%.

Keywords: Psychology, Scientometrics, Growth Rate, Bradford's law, Core Journals

1. Introduction

Psychology is the science of the mental processes of man and the higher animals are shown by their behavior. It is concerned with the responses of individuals and groups to their physical and social environments. Psychologists study the experiences and reactions of people, including their sensations and perceptions, feelings and emotions, thoughts and motives.

'Scientometrics' is a wide-ranging field with vague boundaries. It is the system of knowledge which endeavours to study the scientific system with the use of definite methods: Observation, measurement, comparison, classification, generalization and explanation. To use a parallel, scientometrics is for science what economics is for the economy. Both discipline attempt to study social phenomena with the rigour provided by the scientific methods. Scientometrics may be more of a technology than a science. In the present study the psychology literature of scientometric study.

The Present study is a bibliometric analysis of Psychology Literature over the period of 1972-2008. An attempt has been made in this study to find out the various characteristics of Psychologyliterature such as average growth rate of literature, relative growth rate and Institution wise distribution, Language wise distribution and Bradford's Law research etc.

2. Review of Related Literature

Of late a lot of research papers are being published at national and international level on scientometrics. It is observed from LISA, LISTA, Goole and Emerald that the paper like,

Mahapatra (1985) assessed the Relative Growth Rates (RGR) is a measure to study the increase in number of articles/pages per unit of articles/pages per unit of time. Maite Barrios (2008). The psychology of tourism is a new, multidisciplinary research field. However, no systematic analyses of the scientific production in this field have been carried out to date. This study presents a bibliometric analysis of the area of psychology of tourism between 1990 and 2005. The evolution of scientific production during this period, Price's, Lotka's and Bradford's laws and citation patterns were studied. The results show a significant growth in the literature on the subject, as well as an increase in co-authorship and institutional collaboration. Bibliometric laws and empiric regularities observed in other disciplines are also present in this new research field. In the study of Sen and Gan (1990) the conceptual framework to study the individual scientists or group of individuals in the pivotal position of investigation by using the models, devices or tools of Scientometrics and bibliometrics approach, coined the and new term "Bibliometrics."

3. Methodology

Scientometrics has recently emerged as a subject of study in the mid 1960's, and it has aroused considerable attention in the area of scientific communication. This method has been selected for the present study. The present study is confined to psychology literature for India and Germany, reported in the CD-ROM version of Psyclit database 1972-2008.

For the present study, necessary data has been collected from

Psyclit database 1972-2008. To meet the objectives of the present study, necessary data was collected in the form of bibliometric components, such as type of documents, country wise distribution of citations, most cited journal etc. Finally given data set was organized, tabulated and analysed with the help of Ms-Excel and SPSS. The data is presented in the form of tables and graphs for the purpose of interpretation and discussion.

4. Objectives

The specific objectives of the study are:

- 1. To study and the applicability of selected growth models in the world and Indian and Germany psychology literature;
- 2. To determine the rate of growth of psychology literature by calculating relative growth rate, doubling time for publication;
- 3. To fit both modified exponential curve and logistic curve for the original publications data for studying actual growth pattern;
- To study the criteria on which models are to selected for their possible application in the sub-disciplines of psychology;
- To apply some mathematical measures to determine the extent and size of co-authorship research in psychology in India and Germany;
- 6. To observe the nature of collaborative research in psychology in India and Germany;
- 7. To apply Bradford's law to the data of psychology journals

- 8. To trace the characteristics of psychology literature;
- 9. To find out research productivity of India and Germany social science institutions.

5. Data Analysis and Interpretation

As reflected in the Psyclit database, during 37 years span time (1972 – 2008), India has produced total of 11,604 (0.64%) publications. And the highest number of publications is found 952 during the period of 1988. The average number of publications is 313.62 (0.02%). In 1972 India's output of publications is 185 and the cumulative total is also 185 with (1.59%). In 1982 India's output of publications is reached 398 and the cumulative total is 2686 with (23.15%). In 1992 India's output of publications is 271 and the cumulative total is 7371 with (63.52%). Here we can found that from 1972 to 1988, India's output of publications was increasing in order i.e. 185 publications in 1972 and 952 publications in 1988. But after the year 1988 India's output of number of publications was decreased in its order, and even there was a variation in the output of publications. We can observe and find that in 1994 India's publications only 59 only and cumulative total were 7660 with (66.01%). In 2002 India's output of publications was 150 and cumulative total were 9529 with (82.12%). In 2008 India's outputs of publications were 518 with (100%). It is observed and found that, the output of publications by India is having a variation in its publications. But there is a constant growth in cumulative total.

Table 1: Growth of Literature Year -Wise (Psychology): India and Germany

Year	World Output	('iimiilafiyel	Cumulative %	India	Cumulative Total	Cumulative %	Germany	Cumulative Total	Cumulative %	Total	Cumulative Total	Cumulative %
	23853	23853	1.33	185	185	1.59	411	411	0.73	596	596	0.88
1973	26952	50805	2.82	183	368	3.17	505	916	1.63	688	1284	1.89
1974	29627	80432	4.47	229	597	5.14	483	1399	2.49	712	1996	2.94
1975	27921	108353	6.02	200	797	6.87	565	1964	3.50	765	2761	4.07
1976	28954	137307	7.63	228	1025	8.83	606	2570	4.57	834	3595	5.30
1977	30060	167367	9.30	324	1349	11.63	690	3260	5.80	1014	4609	6.80
1978	30486	197853	10.99	206	1555	13.40	676	3936	7.00	882	5491	8.10
1979	24762	222615	12.37	225	1780	15.34	496	4432	7.89	721	6212	9.16
1980	27390	250005	13.89	210	1990	17.15	548	4980	8.86	758	6970	10.28
1981	29787	279792	15.54	298	2288	19.72	608	5588	9.94	906	7876	11.62
1982	39366	319158	17.73	398	2686	23.15	881	6469	11.51	1279	9155	13.50
1983	41429	360587	20.03	403	3089	26.62	981	7450	13.26	1384	10539	15.56
1984	43253	403840	22.44	335	3424	29.51	1006	8456	15.05	1341	11880	17.52
1985	48713	452553	25.14	481	3905	33.65	1101	9557	17.01	1582	13462	19.86
1986	56516	509069	28.28	587	4492	38.71	1817	11374	20.24	2404	15866	23.40
1987	62957	572026	31.78	772	5264	45.36	2050	13424	23.89	2822	18688	27.57
1988	86975	659001	36.61	952	6216	53.57	2489	15913	28.32	3441	22129	32.64
1989	52563	711564	39.53	374	6590	56.79	1438	17351	30.88	1812	23941	35.31
1990	55781	767345	42.63	307	6897	59.44	1472	18823	33.50	1779	25720	37.94
1991	31011	798356	44.35	203	7100	61.19	791	19614	34.91	994	26714	39.40
1992	57191	855547	47.53	271	7371	63.52	1451	21065	37.49	1722	28436	41.94
1993	53029	908576	50.48	230	7601	65.50	1429	22494	40.03	1659	30095	44.39
1994	22513	931089	51.73	59	7660	66.01	556	23050	41.02	615	30710	45.30
1995	59509	990598	55.03	252	7912	68.18	1601	24651	43.87	1853	32563	48.03
1996	60750	1051348	58.41	251	8163	70.35	1625	26276	46.76	1876	34439	50.80
1997	61654	1113002	61.83	212	8375	72.17	1659	27935	49.72	1871	36310	53.56
1998	64966	1177968	65.44	240	8615	74.24	1895	29830	53.09	2135	38445	56.71
1999	127197	1305165	72.51	388	9003	77.59	4006	33836	60.22	4394	42839	63.19
2000	63405	1368570	76.03	208	9211	79.38	2039	35875	63.85	2247	45086	66.50

2001	48017	1416587	78.70	168	9379	80.83	1594	37469	66.68	1762	46848	69.10
2002	38865	1455452	80.86	150	9529	82.12	1304	38773	69.00	1454	48302	71.25
2003	32068	1487520	82.64	232	9761	84.12	1616	40389	71.88	1848	50150	73.97
2004	60378	1547898	85.99	238	9999	86.17	3089	43478	77.38	3327	53477	78.88
2005	9484	1557382	86.52	279	10278	88.57	3220	46698	83.11	3499	56976	84.04
2006	81791	1639173	91.06	381	10659	91.86	3429	50127	89.21	3810	60786	89.66
2007	78232	1717405	95.41	427	11086	95.54	2927	53054	94.42	3354	64140	94.61
2008	82636	1800041	100.00	518	11604	100.00	3136	56190	100.00	3654	67794	100.00
Total	1800041	1800041	100	11604	11604	100	56190	56190	100	67794	67794	100

During 37 years span time (1972 - 2008), Germany has produced a total of 56,190 (3.12%), and the highest number of publications was found 4006 during the period of 1999 the average number of publications per year is 1518.65 (0.08%). In 1972 Germany's output of publications was 411 and the cumulative total were also 411 with (0.73%). In 1982 Germany's output of publications was 881 with (11.51%). In 1982 Germany's outputs of publications were 1451 and the cumulative totals were 21,065 with (37.49%). In 2008 Germany's output of publications was 3136 and the cumulative total was 56,190 with (100%). It is observed and found that, like the variations in the output of publications by India here also we can find variations in the output of publications by Germany. It is observed and found that the number of output of publications by Germany is maximum compared to India, i.e. from 1972 to 2008.

During the 37 years span time (1972 - 2008), India and Germany both together produced a total of 67,794 output of publications with (3.77%), and the average number of output of publications by India and Germany per year is 1832.27 (0.10%). In 1972 the output of publications by India and Germany is 596 and cumulative total is also 596 with (0.88%). In 1982 the output of publications India and Germany is 1279 and the cumulative total is 9155 with (13.50%). In 1992 the output of publications by India and Germany is 1722 and the cumulative total is 28,436 (41.91%). In 2002 the output of publications by India and Germany is 1454 and the cumulative is 48302 (71.25%). In 2008 the output of publications by India and Germany is 3654 and cumulative total is 67,794 with (100%). The highest number of output of publications by India and Germany is found 4394 during the period of 1999 it is observed and fond that like India and Germany we can also find variations in the output of publications by both the countries. But here also there is constant growth in output of publications in cumulative total.

During 37 years span time (1972 - 2008), world i.e. rest of the countries other than India and Germany, including organizations has produced a total of 18, 00,041 publications. The highest number of output of publications by the world was found 127197 in 1999. In 1972 worlds outputs of publications were 23853 and the cumulative total is also 23853 (1.33%). In 1982 the world's outputs of publications were 39366 and cumulative total is 319158 with (17.73%). In 1992 world's output of publications were 57191 and the cumulative total is 855547 (47.53%). In 2002 world's output of publications were 38865 and the cumulative total is 1455452 (80.86%). In 2008 world's output of publications were 82636 and cumulative total is 1800041 (100%). It is observed found that here also there is a variation in output of publications like in the India and Germany. But there is a constant and rapid growth in cumulative total compare to India and Germany from 1972 - 2008.

Table 2: Most Prolific Indian Contributors

Rank	Authors	No. of Articles	%
1	Verma,SK-72	124	8.45
1	Verma,SK-52	124	0.43
2	Gangadhar, B,N-37	81	5.52
	Gangadhar B N-34		3.32
3	Kanekar, Suresh	78	5.31
4	Andrade, Chittaranjan	75	5.11
5	Khanna, Sumanth	68	4.63
6	Chatruvedi, Santosh k	66	4.49
7	Sinha,Durganand	65	4.43
8	Pande, Janak	64	4.36
9	Singh, Satvir	61	4.16
10	Mohan, Jitendra	60	4.09
11	Mondal, Manas K	59	4.02
12	Misra, Girishwar	57	3.88
13	Mohan, Vidhu	48	3.27
14	Sen, Anima	39	2.66
15	Sharma, Sagar	39	2.66
1.0	Srivastava, AK -20	20	2.66
16	Srivastava AK-19	39	2.66
17	Chadha, NK	37	2.52
18	Chattopadhyay, Prabal K	37	2.52
19	Varma, Vijoy K	37	2.52
20	Kumar, Pramod	36	2.45
21	Bhargava, Mahesh	34	2.32
22	Rai, SN-11 Rai, SN-23	34	2.32
23	Mohanty, Banamali	32	2.18
24	Pestonjee,DM-12	22	2.10
24	Pestonjee,DM-20	32	2.18
25	Narayanan, HS	31	2.11
26	Rangaswami, K	30	2.04
27	Unmanyu V V-16		1 04
21	Upamanyu,V V-11	27	1.84
28	Gupta, Rajeev	26	1.77
29	Nagaraja, Jaya	26	1.77
30	Ojha, Hardeo	26	1.77

Table -2 gives a rank list of 30 top most prolific Indian contributors. The total number of publications by India with all authors is 11604 with (0.64%), during the period of 37 years i.e. from 1972 - 2008. Now we have to find out total number of articles of 30 authors publications with percentage. The 30 authors have contributed a total of a 1468 articles with (39.68%).

It is observed and found that in a rank list of 30 top most prolific Indian contributors, following people are in the publications. Verma S.K. has contributed maximum number of papers among 30 indian scientists, that is 124 papers with (8.45%); followed by Gangadhar. B.N. has contributed 81 papers with (5.52%); Kanekar. Suresh has contributed 78 papers with (4.63%); Andrade, Chittaranjan has contributed 75 papers with (5.11%); Khanna, Sumanth has contributed 68

papers with (4.63%) respectively, these are the major contributors among 30 top most prolific Indian contributors. The detailed information about the other 25 authors and their number of papers with percentage is given in the table -2.

Table 3: Most Prolific German Contributors

Rank	Authors	No. of Articles	%
1	Schwarz, Norbert	145	5.69
2	Maier, Wolfgang	143	5.61
3	Schnieder, Wolfgang	143	5.61
4	Wittchen, Hans-Ulrich	140	5.49
5	Baltes, Paul-B	136	5.34
6	Marcowitsch, Hans-J	128	5.02
7	Steinhausen, Hans-Christoph	107	4.20
8	Remschmidt, Helmut	94	3.69
9	Wippich, Werner	90	3.53
10	Schwarzer, Ralf	88	3.45
11	Fichter, Manfred-M	87	3.41
12	Gigerenger, Gerd	87	3.41
13	Engelkamp, Johannes	84	3.30
14	Fiedler, Klaus	84	3.30
15	Hautzinger, Martin	76	2.98
16	Krampen, Gunter	76	2.98
17	Heuer, Herbert	73	2.86
18	Seiffge-Krenke, Inge	71	2.79
19	Borg, Ingwer	66	2.59
20	Ammon, Gunter	65	2.55
21	Sehredl, Michel	64	2.51
22	Hager, Willi	62	2.43
23	Lohaus, Arnold	59	2.31
24	Gattaz, Wagner-F	58	2.28
25	Baltes, Margret-M	57	2.24
26	Borkenau, Peter	54	2.12
27	Hasselhorn, Marcus	54	2.12
28	Klauer, Karl-J	54	2.12
29	Verleger, Rolf	52	2.04
30	Wolfersdorf, Manifred	52	2.04

Table -3 gives a rank list of 30 top most prolific German contributors. The total number of publications by Germany with all authors is 56,190 with (3.12%) percent during the period of 37 years i.e. from 1972 - 2008. Now we have to find out total publications of 30 authors with percentage. The 30 authors have been contributed a total of 2549 papers with (68.89%) percent.

It found that in a rank list of 30 top most German contributors, following people are top in the publications. Schwarz, Norbert has contributed highest papers i.e. 145 papers with (5.69%) percent; followed by Maier, Wolfgang has contributed 143 papers with (5.61%) percent; Schnieder, Wolfgang has contributed 143 papers with (5.61%) percent; Wittchen, Hans. Ulrich has contributed 140 papers with (5.49%) percent; Baltes, Paul. B has contributed 136 papers with (5.34%) percent respectively. These are the major contributors among 30 top most German contributors. Maier, Wolfgang and Schnieder, Wolfgang stands second in the rank list of publications with 143 papers with (5.61%) percent respectively. The detailed information about the other 25 authors and their number of papers with percentage is given in the table-3.

Table 4: Institute- Wise Research Productivity in India

Ranking research Productivity	University/ Institute- India	No. of Contributed Articles	%
1	National Inst of Mental Health & Neuro Sciences	775	16.68
2	U Delhi	393	8.46
3	Bangalore U Includes National Inst of Mental Health & Neurosciences	324	6.97
4	Post Graduate Inst of Medical Education& Research, Chandigarh	277	5.96
5	Utkal U	238	5.12
6	U Calcutta	214	4.67
7	U Allahabad	180	3.87
8	U Lucknow	163	3.56
9	Punjab U	160	3.44
10	Aligarh Muslim U	147	3.16
11	Indian Inst of Technology	146	3.14
12	U Madras	139	2.99
13	Bhagalpur U	105	2.26
14	Himachal Pradesh U	105	2.26
15	All India Inst of Medical Sciences	104	2.24
16	Gorakhpur U	103	2.22
17	U Bombay	101	2.17
18	Guru Nanak Dev U	100	2.15
19	Sri Venkateshwara U, Tirupati	95	2.04
20	U Rajasthan	92	1.98
21	Andhra U	85	1.83
22	Christian Medical Coll	78	1.68
23	Indian Inst of Management	77	1.66
24	Meerut U	76	1.64
25	U Patna	71	1.53
26	Ravishankar U, Raipur	67	1.44
27	Tata Inst of Social Sciences Bombay	64	1.38
28	Maharaja Sayajirao U of Baroda	60	1.29
29	Osmania U	54	1.16
30	Central Inst of Psychiatry	53	1.14

Table- 4 gives a rank list of 30 top most institute-wise research productivity in India. The total number of articles produced by 30 Indian institutions is 4643 (125.49%) average percent during the period of 37 years i.e. from 1972-2008. It is found that in a rank list of 30 top most institutes of India, following institutes are top in the production of research articles. National Institute of Mental Health & Neuro-Sciences produced highest i.e. 775 articles with (16.68%); followed by University of Delhi produced 393 articles with (8.46%) percent; Bangalore University includes National Institute of Mental Health & Neuro-Sciences produced 324 articles with (6.97%) percent; Post- Graduate Institute of Medical Education & Research, Chandigarh produced 277 articles with (5.96%) percent; Utkal University produced 238 articles with (5.12%) percent respectively. These are the major contributors among 30 top most institutes of India. The detailed information about the other 25 institutes of India and their number of articles produced with percentage is given in the table-4

Table 5: Institute-Wise Research Productivity in Germany

Ranking Research Productivity	University/ Institute- Germany	No. of Contributed Articles	%
1	Free U Berlin	1707	10.34
2	Freie U Berlin Klinikum Charlottenburg	1183	7.17
3	U Hamburg	841	5.10
4	U Bielefeld- 776, Universityof Bielefeld-41	817	4.95
5	Ruhr U or 153, Ruhu U 653	806	4.88
6	Ludwig-Maximilians- U Muenchen	738	4.47
7	U Trier	658	3.99
8	U Duesseldorf or/- 204, U Duesseldorf-414	618	3.74
9	Philipps-U Marburg	576	3.49
10	U Bonn-472, University of Bonn-91	563	3.41
11	U Heidelberg	560	3.39
12	U Munich	539	3.27
13	U Konstanz	528	3.20
14	U Ulm	453	2.74
15	Eberhard Karls-U, Eberhard Karls-U, Eberhard Karls-U	451	2.73
16	Max-Planck-Inst Fuer Psychiatrie,	449	2.71
10	Max-Planck-Inst Fuer Psychiatrie (104,344)	U 451 448 441	2.71
17	U Mannheim	441	2.67
18	U Freiburg	420	2.54
19	Johannes Guttenburg-U Mainz	407	2.47
20	Albert-Ludwigs-U Freiburg	404	2.45
21	Ruprecht, Karls-U	363	2.20
22	U Leipzig-272, U leipzig-89	361	2.19
23	NeurologischeKlinik	358	2.17
24	U Regensburg	346	2.10
25	Heinrich-Heine-U	331	2.01
26	Zentralinstitut Fuer Seelische Gesundheit-96,	327	1.98
20	Zentralinstitut Fuer Seelische Gesundheit-231	327	1.98
27	Rheinisehe Friedrich-Wilhelms-U Bonn	316	1.91
28	WestfaelischeWilhelms- Umuenster-80	316	1.91
29	Bayerische- Julius-Maximilians-U Wurzburg	315	1.91
30	Christian-Albrechts U	315	1.91

Table- 5 gives rank list of 30 top most institute-wise research productivity in Germany. The total number of articles produced by 30 German institutes is 16,506 with (446.11%) average percent during the period of 37 years i.e. from 1972-2008. It is found that in a rank list of 30 top most institutes of Germany, following institutes are top in the production of research articles. Free University Berlin produced highest articles i.e. 1707 with (10.34%) percent; followed by Freie U. Berlin Klinikum Charlottenburg produced 1183 articles with (7.17%) percent; University of Hamburg produced 841 articles with (5.10%) percent; University of Bielefeld produced 817 articles with (4.95%) percent; Ruhr University produced 806 articles with (4.88%) percent respectively. These are the major contributors 30 top most institutes of Germany. The detailed information about other 25 institutes of India and their number of articles with percentage is given in table- 5

Table 6: Language -wise distribution-India

Language	No of Records	%
English	9429	99.89
French	2	0.02
German	2	0.02
Italian	1	0.01
Spanish	1	0.01
Hindi	4	0.04

12000

10000

8000

4000

English French German Italian Spanish Hindi

No of Records

Fig 1: Rank list of language wise distribution in the field of psychology literature in terms of number of publications in India.

Table-6 depicts the language wise distribution of publication from India. It is observed that English is on top of the list in publications with 9429 papers with 99.89%. In French two papers were published with 0.02%; in German 2 papers were published with 0.02% respectively. In Italian 1 paper were published with 0.01% and in Spanish 1 paper were published with 0.01% respectively. In Hindi 4 papers were published with 0.04%.

Table 7: Language-wise distribution-Germany

Language	No of Records	%
Chinese	4	0.01
Czech	8	0.02
Danish	3	0.01
Dutch	4	0.01
English	17447	53.24
French	101	0.31
German	14982	45.72
Hungarian	5	0.02
Italian	33	0.10
Japanese	6	0.02
Polish	11	0.03
Portuguese	14	0.04
Russian	30	0.09
Slovak	2	0.01
Spanish	120	0.37

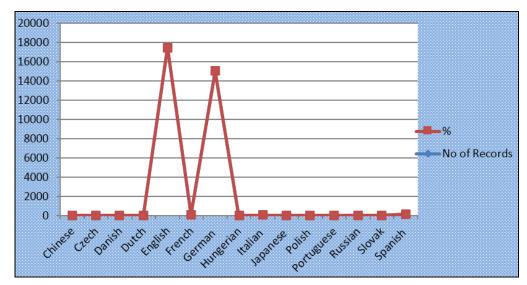


Fig 2: Rank list of language wise distribution in the field of Psychology literature in terms of number of publications in Germany.

Table- 7depicts the language wise distribution of publications from Germany. It is observed that in Chinese language 4 papers were published with 0.01%. In Czech 8 papers were published with 0.01%. In Danish 3 papers were published with 0.01%. English is on top of the list in publications with 17,447 papers with 53.24%. In French 101 papers were published with 0.31%. In German 14,982 papers were published with 45.72%. German stands in second place in terms of publications followed by English language. In Hungarian 5

papers were published with 0.02%. In Italian 33 papers were published with 0.10%. In Japanese 6 papers were published with 0.02%. In Polish 11 papers were published with 0.03%. In Russian 30 papers were published with 0.09%. In Slovak 2 papers were published 0.01%. Finally in Spanish language 120 papers were published with 0.37% respectively.

Hence we can inferred that English is the most predominant language for the Indian and German researchers.

Table 8: Core Journals Prefered for Publication in India

Rank	Core Journals	Articles	%	Cum Articles	Cum % age
1	Psychological-Studies	620	9.28	620	9.28
2	Indian-Journal-of-Clinical-Psychology	609	9.12	1229	18.40
3	Indian-Journal-of-Psychiatry	517	7.74	1746	26.14
4	Journal -of-Psychological-Researches	391	5.85	2137	32.00
5	Journal-of-the-Indian-Academy-of-Applied-Psychology	382	5.72	2519	37.72
6	Journal-of-Personality-and-Clinical-Studies	374	5.60	2893	43.31
7	Indian-Psychological-Review	349	5.23	3242	48.54
8	Asian-Journal-of-Psychology-and-Education	290	4.34	3532	52.88
9	Psycho-Lingua	259	3.88	3791	56.76
10	NIMHANS-Journal	240	3.59	4031	60.35
11	Social-Science-International	232	3.47	4263	63.83

12	Child-Psychiatry-Quarterly	207	3.10	4470	66.93
13	indian-Journal-of-Social-Work	179	2.68	4649	69.61
14	Indian-Journal-of-Psychometry-and-Education	167	2.50	4816	72.11
15	Indian-Journal-of-Applied-Psychology	166	2.49	4982	74.59
16	Perspectives-in-Psychological-Researches	155	2.32	5137	76.91
17	Psychologia:-An-International-Journal-of-psychology-in-the-Orient	152	2.28	5289	79.19
18	Indian-Journal-of-Psychological-Medicine	138	2.07	5427	81.25
19	Indian-Journal-of-Behaviour	136	2.04	5563	83.29
20	Indian-Journal-of-Psychology	131	1.96	5694	85.25
21	British-Journal-of-Psychiatry	127	1.90	5821	87.15
22	Journal-of-Indian-psychology	123	1.84	5944	89.00
23	indian-Educational-Review	121	1.81	6065	90.81
24	Indian-Journal-of-Current-Psychological-Research	114	1.71	6179	92.51
25	Manas-	102	1.53	6281	94.04
26	Journal-of-Social-Psychology	96	1.44	6377	95.48
27	Indian-psychologist.D	90	1.35	6467	96.83
28	Abhigyan	76	1.14	6543	97.96
29	Acta-Psychiatrica-Scandinavica	71	1.06	6614	99.03
30	International-Journal-of-Social-Psychiatry	65	0.97	6679	100.00
		6679	100.00		

Table -8 gives a rank list of 30 top most core journals preferred for publication in India. The total number of articles published by the 30 top most core Journals is 6679 with (180.51%) average percent, during the period of 37 years i.e. from 1972 - 2008.

It is found that in a rank list of 30 top most core journals preferred for publication in India, following core Journals are in the publication. Psychological studies published highest articles i.e. 620 with (9.28%) percent; followed by Indian Journal of Clinical Psychology published 609 articles with

(9.12%) percent; Indian Journal of Psychiatry published 517 articles with (7.74%) percent; Journal of Psychological – Researches published 391 articles with (5.85%) percent; Journal of the Indian – Academy- of Applied Psychology published 382 articles with (5.72%) percent respectively. These are the major core Journals among 30 top most core journals preferred for publication in India. The detailed information about other 25 core journals and their number of articles published with percentage is given in the table – 8

Table 9: Core Journals Preferred for Publication in Germany

Rank	Core Journals	Articles	%	Cum Articles	Cum % age
1	Nervenarzt-	1096	8.65	1096	8.65
2	Praxis-der-kinderpsychologie-und-Kinderpsychiatrie	804	6.35	1900	15.00
3	Psychologie-in-Erziehung-und-Unterricht	735	5.80	2635	20.80
4	Psychiatrie-Neurologie-und-Medizinisch-Psychlogie	673	5.31	3308	26.11
5	Psychologische-Beitraege	643	5.08	3951	31.19
6	Fortsehritte-der-Neurologie-Psychiatrie	636	5.02	4587	36.21
7	Diagnostica	591	4.66	5178	40.87
8	Psychotherapie-Psychosomatik-Medzinische-Psychologie	573	4.52	5751	45.39
9	Zeitschrift-fur-Expermentelle-und-Angewandte-Psychologie	515	4.07	6266	49.46
10	Zeitschrift-fur-Entwicklungspsychologie-und-Padagogisch-Psychologie	491	3.88	6757	53.33
11	Zeitschrift-fur-Psychologie	396	3.13	7153	56.46
12	Zeitshrift-fur-Sozailpsychologie	395	3.12	7548	59.58
13	Pharmacopsychiatry	373	2.94	7921	62.52
14	Vision-Research	330	2.60	8251	65.13
15	Zeitschrift-furPsychosomatische-Medizin-und-Psychoanalyse	317	2.50	8568	67.63
16	Biological-Psychiatry	313	2.47	8881	70.10
17	European-Archives-of-Psychiatry-and-Clinical-Neuroscience	297	2.34	9178	72.44
18	Gruppendynamik	296	2.34	9474	74.78
19	Sprache-and-Kognition	287	2.27	9761	77.05
20	Psychologische-Rundschau	284	2.24	10045	79.29
21	Psychopharmacology	282	2.23	10327	81.51
22	Zeitshrift-fur-Tierpsychologie	275	2.17	10602	83.68
23	Zeitschrift-fur-Klinische-Psychologie,-Psychiatrie-und-Psychotherapie	272	2.15	10874	85.83
24	Psyche:-Zeitschrift-fuer-Psychoanalyse-und-ihre-Anwenungen	271	2.14	11145	87.97
25	Zeitschrift-fur-Kinder-und-Jugendpsychiatrie	257	2.03	11402	90.00
26	Neuropsychobiology	255	2.01	11657	92.01
27	Zeitschrift-fur-Klinische-Psychologieforschung-und-praxis	255	2.01	11912	94.02
28	Acta-Psychiatrica-Scandinavica	254	2.00	12166	96.03
29	Zeitschrift-fur-Differentielle-und-Diagnostische-Psychologie	252	1.99	12418	98.02
30	Praxis-der-Psychotherapie-und-Psychosomatik	251	1.98	12669	100.00
		12669	100.00		_

Table-9 gives a rank list of 30 top most journals preferred for publication in Germany. The total number of articles published by the 30 journals is 12,669 with 342.40% percent. It is found that rank list of 30 top most core journals preferred for publication in Germany; following core journals are top in the publication. Nervenarzt published highest articles i.e. 1096 with (8.65%)percent; followed by Pradxis-der-Kinderpsychologie-und-Kinderpsychiatrie published articles with (6.35%) percent; Psychologie-in-Erziehung-und-Uterricht published 735 articled with (5.80%) percent: Psychiatrie-Neurologie-und-Medizinsch-Psychologie published 673 articles with (5.08%) percent respectively. These are the major core journals among 30 top most core journals preferred publication in Germany. The detailed information about other 25 core journals and their number of articles published with percentage is given in the table-9

6. Conclusion

To conclude, the growth pattern of publications, as reflected in the Psyclit database, during the 37 years span time there is a fluctuation in the output of publication by India, Germany and world. But there is a constant growth in a cumulative total. The most prolific contributors of India and Germany contributed good number of papers. Compared to Indian contributors, German contributors published more number of papers. Institute-wise distribution of publication by India is also less compared to Germany But even though both India and Germany played a vital role in publication in the field of psychology literature research. Hence we can inferred that English is the most predominant language for the publication for both India and Germany respectively.

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