

### The Journal of Psychology



**Interdisciplinary and Applied** 

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## A Bibliometric History of the Journal of Psychology Between 1936 and 2015

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#### **ABSTRACT**

The Journal of Psychology: Interdisciplinary and Applied is a leading international journal in psychology dating back to 1935. This study examines its publications since its creation utilizing a bibliometric analysis. The primary objective is to provide a complete overview of the key factors affecting the journal. This analysis includes such key issues as the publication and citation structure of the journal, its most cited articles, and the leading authors, institutions, and countries referenced in the journal. The work uses the Scopus database to classify the bibliographic material. Additionally, the analysis provides a graphical mapping of the bibliographic data by using visualization of similarities viewer software. This software uses several bibliometric techniques including co-citation, bibliographic coupling and cooccurrence of keywords. The Journal of Psychology is strongly connected to most of the current leading journals in psychology, and currently has a 5-year impact factor of 1.77 (Thomson Reuters, 2015 Journal Citation Reports).

#### **ARTICLE HISTORY**

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#### **KEYWORDS**

Bibliometrics; journal analysis; psychology; Scopus

The Journal of Psychology: Interdisciplinary and Applied is a double-blind, peer-review international journal published by Taylor & Francis. It publishes empirical and theoretical articles in such applied areas of psychology as behavioral psychology, cognitive psychology, clinical psychology, educational psychology, consumer psychology and environmental psychology. In addition, the journal seeks to publish interdisciplinary contributions that integrate other disciplines with psychology such as law, economics, politics and religion.

The journal was founded in 1935 in response to the accelerated growth of psychological research. At this point in time, psychology was in full expansion at an academic, institutional, and empirical level.

The publication of the journal has continued uninterrupted until the present day and was the first to publish one or two issues per year (1935 and 1936). From 1937 and until 1964, it went on to publish two volumes per year, two issues for each one. Between 1966 and 1984, the journal published six two-issue volumes a year. In 1985, the editors restructured the internal layout of the journal, organizing it into six annual numbers published in a volume

and that continued until the year 2015, when the number of published issues increased to eight per year.

Currently, the executive editors of the journal include: Ron Downey (Kansas State University), Ami Rokach (York University; The Center for Academic Studies, Israel) and John Watt (Texas A & M University). The Journal of Psychology publishes eight issues per year, and is one of the top journals in the field with an impact factor of 1.25 according to 2016 Thomson Reuters, 2015 Journal Citation Reports®, and a 5-year impact factor of 1.765 (Reuters, 2015).

The primary purpose of this study is to examine *The Journal of Psychology*'s published articles according to the leading articles, authors, institutions, and countries using a bibliometric approach. This method provides a qualitative and quantitative analysis of the journal's contribution to the scientific community through a close analysis of the articles published by the journal. This analysis was conducted using data from the Scopus database. Minimal discrepancies/faults, however, may appear given that Scopus sometimes is not consistent in how it provides the data. This research paper aims at providing an extensive analysis of the development of the publication structure and the citations that derive from the journal based on the most productive authors, institutions, and countries. Understanding the factors that guide the journal can be interesting for the scientific community as well as the journal's target audience.

A bibliometric approach has been applied to other disciplines and in a multitude of different areas. Namely, economy (Coupé, 2003), innovation (Fagerberg, Fosaas, & Sapprasert, 2012), entrepreneurship (Landström, Harirchi, & Aström, 2012), health economics (Wagstaff & Culyer, 2012) and management (Podsakoff, MacKenzie, Podsakoff, & Bachrach, 2008). Additionally, various studies developed a bibliometric analysis of specific journals, including the Journal of Business Research (Merigó, Mas-Tur, Roig-Tierno, & Ribeiro-Soriano, 2015), the Journal of Business and Industrial Marketing (Valenzuela et al., 2017), International Journal of Intelligent Systems (Merigó, Blanco-Mesa, Gil-Lafuente, & Yager, 2017) and European Journal of Operational Research (Laengle et al., 2017).

#### Method

A common way to measure research activity is through metrics associated with publications in peer-reviewed journals (Carleton et al., 2012). These metrics include a recount of articles and citations, as well as factor-impact assessed through the h-index (Hirsch, 2005). This index takes into account the productivity and impact of a set of publications (Krampen, Becker, Wahner, & Montada, 2007). The impact of research and productivity correlate positively (Feist, 1997).

This study focuses on publications by The Journal of Psychology over a nearly 80 year period (i.e., 1936 to 2015). The study of bibliometrics allows for the use of different techniques to obtain the data of interest; however, the techniques that are more commonly used are those focusing on the number of studies and the total number of times cited. In addition to these two factors, this study also presents the number of citations per article and the number of studies per person in the section regarding productivity by country. Additionally, the results are in some cases presented according to different thresholds. For instance, the results corresponding to an author indicate the number of studies, the total times the studies were cited, and then the number of articles cited more than 50 times, more than 25 times, and more than 10 times. Other indicators included are the h-index and the impact factor of the journal per year as per the existing records. These structured results allow for a more informed assessment of the rankings, as will be shown in each particular section of the results.

The h-index is designed to integrate a person's publications and citations in a single measurement (Harzing, 2010; Hirsch, 2005). For example, a researcher with a 20h-index has 20 publications that have received at least 20 citations. However, this index does not take into account other publications by the same author particularly if he/she has received a small number of citations. Other indices are the (i) G-index, which draws on the h-index but only focuses on the articles that have a high number of citations (Egghe, 2006; Harzing, 2010), (ii) the hl-index, which takes into account co-authorship, and (iii) the annual index-hl, which provides a researchers' average influence throughout his or her career (Harzing, Alakangas, & Adams, 2014). Although there is currently some controversy about the best measure to describe the professional profile (Podsakoff et al., 2008), the main assumption is that the number of publications reflects the researcher's productivity and the number of citations refers to the impact of the author in his/her community.

In order to gain a better image of The Journal of Psychology's contribution towards the scientific community, this study includes the most significant indicators that offer a comprehensive overview of published production. The tables that appear in this paper display sets of analyses from different perspectives, including productivity influence within the scientific community, institutions, and countries. In addition, the study includes the quotations/article ratio to measure the influence of the article and the indicator of the number of items that have a certain level of influence (Merigó, Gil-Lafuente, & Yager, 2015).

The information analyzed in the paper is available on the Scopus database and was retrieved between August and October 2016. The results offer an up-to-date bibliographic overview of *The Journal of Psychology* during the time period indicated.

#### Results

This section presents the results of the bibliometric analysis of studies published between 1936 and 2015 by The Journal of Psychology utilizing the Scopus database. The results include articles, notes, and reviews, as is the general practice in this method. The total number of documents amounted to 7392, with a total number of citations of 42846 and an hindex of 59. The *h*-index indicates the *h* number of articles that have been cited *h* times. In this case, it means that The Journal of Psychology has 59 articles that have been cited at least 59 times. In addition, each article has been cited on average 9.06 times.

#### **Publication Evolution and Citation Structure of The Journal of Psychology**

The results for the first year of publication of *The Journal of Psychology* are to be expected. In 1936 only 14 items were published; however, the total citations of these studies are surprisingly high (104), which indicates a good acceptance and moderate impact in relative terms. The progress of the journal in terms of citations and number of publications is rather irregular. During the first decades, the number of publications increased, except for selected years. Table 1 shows the citation structure for all years (1936–2015), while Figures 1 and 2 present a graph with the publication evolution for different periods.

 Table 1. Citation Structure of The Journal of Psychology.

1936         14         104         5         0         0         1         3         5         11           1937         69         273         8         0         2         2         6         13         39           1938         66         194         7         0         0         2         5         7         32           1939         56         290         7         0         2         3         7         11         32           1940         66         485         8         2         3         3         7         13         31           1941         41         171         7         1         1         1         3         10         22           1942         12         64         2         0         1         1         1         1         6         14         1         1         1         1         1         1         1         6         144         40         84         5         0         0         0         0         1         17         144         40         84         5         0         0         0         2         7 <th>Factor</th> <th>Factor</th>	Factor	Factor
1938       66       194       7       0       0       2       5       7       32         1939       56       290       7       0       2       3       7       11       32         1940       66       485       8       2       3       3       7       13       31         1941       41       171       7       1       1       1       3       10       22         1942       12       64       2       0       1       1       1       1       6         1943       36       31       2       0       0       0       0       1       17         1944       40       84       5       0       0       0       2       7       17         1945       54       590       6       1       1       1       3       10       25         1946       71       1250       6       3       3       4       6       9       18         1947       76       141       7       0       0       2       4       9       23         1948       93       838       <		_
1939       56       290       7       0       2       3       7       11       32         1940       66       485       8       2       3       3       7       13       31         1941       41       171       7       1       1       1       3       10       22         1942       12       64       2       0       1       1       1       1       6         1943       36       31       2       0       0       0       0       1       17         1944       40       84       5       0       0       0       2       7       17         1944       40       84       5       0       0       0       2       7       17         1945       54       590       6       1       1       1       3       10       25         1946       71       1250       6       3       3       4       6       9       18         1947       76       141       7       0       0       2       4       9       23         1948       93       838 <t< td=""><td>_</td><td>_</td></t<>	_	_
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1941       41       171       7       1       1       1       3       10       22         1942       12       64       2       0       1       1       1       1       1       6         1943       36       31       2       0       0       0       0       1       17         1944       40       84       5       0       0       0       2       7       17         1945       54       590       6       1       1       1       3       10       25         1946       71       1250       6       3       3       4       6       9       18         1947       76       141       7       0       0       2       4       9       23         1948       93       838       10       1       2       3       10       13       43         1949       71       232       8       0       0       2       7       12       39         1950       35       218       7       0       0       4       7       7       21         1951       34       <	_	_
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1942       12       64       2       0       1       1       1       1       1       6         1943       36       31       2       0       0       0       0       0       1       17         1944       40       84       5       0       0       0       2       7       17         1945       54       590       6       1       1       1       3       10       25         1946       71       1250       6       3       3       4       6       9       18         1947       76       141       7       0       0       2       4       9       23         1948       93       838       10       1       2       3       10       13       43         1949       71       232       8       0       0       2       7       12       39         1950       35       218       7       0       0       4       7       7       21         1951       34       99       6       0       0       1       3       7       19         1952		
1943       36       31       2       0       0       0       0       1       17         1944       40       84       5       0       0       0       2       7       17         1945       54       590       6       1       1       1       3       10       25         1946       71       1250       6       3       3       4       6       9       18         1947       76       141       7       0       0       2       4       9       23         1948       93       838       10       1       2       3       10       13       43         1949       71       232       8       0       0       2       7       12       39         1950       35       218       7       0       0       4       7       7       21         1951       34       99       6       0       0       1       3       7       19         1952       36       154       7       0       1       1       5       8       16         1953       71       275	_	_
1944     40     84     5     0     0     0     2     7     17       1945     54     590     6     1     1     1     3     10     25       1946     71     1250     6     3     3     4     6     9     18       1947     76     141     7     0     0     2     4     9     23       1948     93     838     10     1     2     3     10     13     43       1949     71     232     8     0     0     2     7     12     39       1950     35     218     7     0     0     4     7     7     21       1951     34     99     6     0     0     1     3     7     19       1952     36     154     7     0     1     1     5     8     16       1953     71     275     9     0     1     2     9     15     36       1954     77     357     8     2     2     3     8     16     41       1955     63     280     9     0     1     2     8     16 <td>_</td> <td>_</td>	_	_
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1953     71     275     9     0     1     2     9     15     36       1954     77     357     8     2     2     3     8     16     41       1955     63     280     9     0     1     2     8     16     39       1956     45     212     6     0     1     3     5     10     24       1957     59     247     10     0     0     1     11     15     31       1958     63     161     7     0     0     1     5     11     31	_	_
1954     77     357     8     2     2     3     8     16     41       1955     63     280     9     0     1     2     8     16     39       1956     45     212     6     0     1     3     5     10     24       1957     59     247     10     0     0     1     11     15     31       1958     63     161     7     0     0     1     5     11     31	_	_
1955     63     280     9     0     1     2     8     16     39       1956     45     212     6     0     1     3     5     10     24       1957     59     247     10     0     0     1     11     15     31       1958     63     161     7     0     0     1     5     11     31	_	_
1956     45     212     6     0     1     3     5     10     24       1957     59     247     10     0     0     1     11     15     31       1958     63     161     7     0     0     1     5     11     31	_	_
1957         59         247         10         0         0         1         11         15         31           1958         63         161         7         0         0         1         5         11         31	_	
1958 63 161 7 0 0 1 5 11 31	_	_
	_	_
1959 77 316 9 0 1 3 8 19 41	_	_
	_	_
1962 86 403 10 0 1 4 13 23 51	_	_
1963 124 374 10 1 1 1 10 25 71	_	_
1964 176 296 8 0 0 2 6 20 72		
1965 216 359 8 1 1 2 5 18 87	_	_
1966 171 398 9 0 0 3 9 24 79	_	_
1967 227 518 10 1 1 2 10 24 95		
1968 208 438 9 0 0 3 9 24 110		
1969 151 580 10 1 3 6 11 26 83		
1970 160 585 13 1 1 5 18 27 89		
1970 100 365 15 1 1 3 16 27 69 1971 169 325 9 0 0 0 7 19 96	_	_
	_	_
	_	_
1973 132 367 8 1 1 1 6 15 81	_	_
1974 142 398 10 1 1 3 11 15 73	_	_
1975 98 431 11 0 0 5 13 23 55	_	_
1976 154 548 12 0 0 2 15 35 100	_	_
1977 164 602 12 0 0 3 17 41 111	_	_
1978 135 531 12 1 2 2 13 35 90	_	
1979 130 566 12 0 1 2 18 38 87	_	_
1980 309 1783 20 2 6 13 56 106 213	_	_
1981 141 739 13 0 1 7 18 45 101	_	
1982 129 799 13 1 1 5 30 50 98	_	
1983 154 799 13 1 1 4 26 49 109	_	_
1984 144 842 15 1 2 7 26 47 100	_	_
1985 91 492 11 0 2 4 12 30 67	_	_ _ _ _ _ _
1986 75 604 13 1 2 6 18 28 58	_	_
1987 85 546 14 0 1 3 21 35 66	_	_
1988 74 815 14 2 6 9 21 35 55	_	
1989 77 706 16 0 0 10 23 38 58		
	_	
	_	_
1991 89 524 12 0 1 3 18 34 65		
1992 89 720 15 0 2 5 24 44 63	_	
1993 94 854 18 1 3 9 28 41 77	_	_
1994 110 1250 18 1 3 11 29 42 71		
1995 83 816 15 1 4 8 22 43 65	_	_
1996 93 652 14 0 0 4 23 51 84	_	_

(Continued on next page)

Table 1. (Continued)

Year	TP	TC	Н	≥75	≥50	≥25	≥10	≥5	≥1	Impact Factor	5Y Impact Factor
1997	100	846	15	0	2	8	29	54	92	0.250	_
1998	93	1288	19	3	6	12	39	59	86	0.162	_
1999	82	1161	20	1	3	11	43	61	77	0.287	_
2000	109	975	15	0	5	9	28	54	98	0.341	_
2001	97	1242	17	1	2	9	32	58	89	0.421	_
2002	106	1099	18	1	2	8	35	67	93	0.220	_
2003	58	807	16	1	3	8	29	38	52	0.361	_
2004	37	726	17	0	1	14	24	27	35	0.371	_
2005	36	824	13	1	3	7	19	31	36	0.525	_
2006	41	537	13	0	0	7	16	32	40	0.561	_
2007	62	862	17	1	2	8	29	47	62	0.513	0.886
2008	72	764	17	0	1	5	32	54	69	0.575	1.031
2009	84	1537	21	5	7	17	35	50	75	0.649	1.105
2010	49	507	13	0	2	3	20	33	48	0.848	1.159
2011	29	194	9	0	0	0	8	16	28	0.781	1.077
2012	52	372	11	0	0	3	15	25	44	0.804	1.253
2013	32	97	6	0	0	0	3	7	22	0.952	1.384
2014	36	59	4	0	0	0	0	2	24	1.757	1.925
2015	89	50	3	0	0	0	0	1	27	1.250	1.765
2016	37	2	1	0	0	0	0	0	2	1.642	2.182
	7392	42846	_	44	112	338	1191	2178	4699		
	100%			0.60%	1.52%	4.57%	16.11%	29.46%	63.57%		

Abbreviations: TP = Total publications; TC = Total citations; H = h-index;  $\geq$ 75,  $\geq$ 50,  $\geq$ 25,  $\geq$ 10,  $\geq$ 5,  $\geq$ 1 = Number of documents with equal or more than 75, 50, 25, 10, 5 and 1 citation.

Following the publication of 14 articles in the journal's founding year (i.e., 1936), that number increased to 69 articles the following year. This approximate number is maintained until 1942, where there was a significant decrease to 12 during World War II. The most remarkable period of the series is during 1964–1984. During the period 1980–2009 the number of studies cited more than 25 times increases and is reasonably consistent (between 6 and 12 studies most years). This result is a quality indicator, but also represents the expansion of research thanks to the surge of the Internet because, even though its more user-friendly version appeared in the nineties, the texts published during the previous decades could be easily added a posteriori to a database.

The published articles received approximately 43,000 citations. A more detailed analysis reveals that 44 articles received more than 75 citations, 112 articles received between 50 and

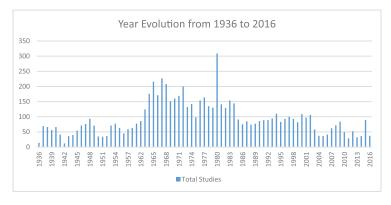


Figure 1. Publication evolution 1936–2016.

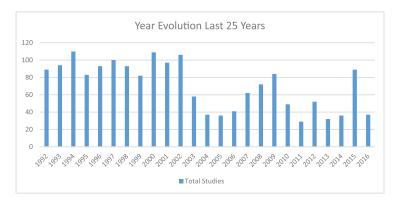


Figure 2. Publication evolution 1992–2016.

74 citations, and 338 articles received between 25 and 49 citations. To some extent, the pace of progress concerning the number of citations throughout this period has been rather steady. Even so, discernible peaks were produced in the years 1946, 1994–1998, 1999, 2001, and 2002, with figures exceeding 1100 and 1200 citations. Similarly, the most outstanding peaks were produced in 1980 and 2009, when the number of citations reached an impressive 1783 and 1537, respectively (Table 1).

Table 1 also reflects the impact factor (IF) of the journal according to the measure of Web of Science (WoS) platform. The IF reflects the number of citations in a year of the documents published in years x-1, x-2. The IF index has been criticized because it is easy to manipulate (Bonilla, Merigó, & Torres-Abad, 2015). For this reason, the WoS uses IF for 5 years as it seems more robust against possible manipulations. *The Journal of Psychology* has been included uninterruptedly in the WoS since 1997. The first year it had an impact factor of 0.250, which fell slightly after the second year, and since 1998 this IF has seen an increase, reaching up to 1.250 in 2015 (latest year available in the WoS). The journal is located in Quartile 2 of the category Psychology-Multidisciplinary (Rank 56/129).

Focusing on the period 1980–2016, the annual number of research published has decreased. It's not clear if this decrease is shared by other psychology journals. Despite the influence in quality production, the advent of the Internet may have also produced the decrease in publications: since authors have access to a greater variety of published works, they may find that some of the ideas have already been developed and published elsewhere. Although in the last years the number of publications has been reasonable, the number of citations is still understandably low. This result is normal given that publications are recent and the typical time lag that occurs between publication and subsequent citation by others. It is important to note that the full results for 2016 are incomplete given that this study was performed before the end of that year.

#### **Most Cited Papers**

Table 2 presents the most cited papers published in *The Journal of Psychology* according to Scopus. *The Journal of Psychology* has had and still continues to have an important influence on the research field of psychology. This success is represented in the following chart in the times articles published in this journal have been cited.

Table 2. Most Cited Papers in The Journal of Psychology.

~	TC	Title	Authors	Year	TC/Year
23	95	The prevalence and correlates of anxiety symptoms in older adults.	Himmelfarb, S., Murrell, S.A.	1984	2.97
24	94	Sex differences in adolescent life stress, social support, and well- heim	Burke, R.J., Weir, T.	1978	2.47
25	93	The influence of job satisfaction, organizational commitment, and fairness perceptions on organizational citizenship behavior.	Schappe, S.P.	1998	5.17
26 27	90 88	Dimensions of Color Vision The emotional impact on victims of traditional bullying and	Ekman, G. Ortega, R., Elipe, P., Mora-Merchán, J.A., Calmaestra, J., Vega, E.	1954 2009	1.45 12.57
28	88	Cyberbunying: A study of opanism adolescents Psychophysiological aspects of amphetamine—methamphetamine Janica	Murray, J.B.	1998	4.89
29	98	Effects abuse. Effects operating partners' costume and physical attractiveness on sexuality and narrner selection	Townsend, J.M., Levy, G.D.	1990	3.31
30	85	Behind the scenes and screens insights into the human dimension of covert and cyberbuilking	Spears, B., Slee, P., Owens, L., Johnson, B.	2009	12.14
31 32	85 85		Vodanovich, S.J. Chance, J.E., Turner, A.L., Goldstein, A.G.	2003 1982	6.54 2.50
33	82 81	Social interdependence and classroom climate The influence of personality and demographic variables on	Johnson, D.W., Johnson, R., Anderson, D. Terpstra, D.E., Rozell, E.J., Robinson, R.K.	1983 1993	2.48 3.52
35 36	79	ethical decisions related to histore trading The fear of death and the fear of dying. Meta-analysis of the relationship between the Big Five and academic circusts at instanctive	Collett, L.J., Lester, D. Trapmann, S., Hell, B., Him, JO.W., Schuler, H.	1969 2007	1.68
37 38 39	78 78 78	Idealism, relativism, and the ethic of caring Primate grooming as a tension reduction mechanism. Social proximity effects on galvanic skin responses in adult	Forsyth, D.R., Nye, J.L., Kelley, K. Terry, R.L. McBride, G., King, M.G., James, J.W.	1988 1970 1965	2.79 1.70 1.53
40	78	numans. Group Structure and the Behavior of Individuals in Small Groups	Shaw, M.E.	1954	1.26

Abbreviations available in previous tables except: TC/year = Cites per year.

Only the sum of the two most cited articles, by Heider (1946) and Stogdill (1948), exceeds 1400 citations. Below, the five most cited articles are described in detail. The first refers to "Attitudes and cognitive organization," by Heider (1946), and deals with the relationship between attitudes toward an event and the person or entity that caused a particular event. The central focus of Heider's research is on the nature of interpersonal relations and the theory of attribution, articulated into two categories, internal attributions (personal) and external (situational) powers (Heider, 1958) receiving 12.51 citations per year. The second most cited article is by Stogdill (1948) and is titled "Personal factors associated with leadership: a survey of the literature." The popularity of the article may owe in this case to the fact that the author provides a review of the literature on a particular topic, which can still today be consulted by other scholars to build their own literature review. Were it not for this article, it would probably be impossible in some cases to access texts dating as far back as the first decades of the twentieth century. This article receives an average of 16.95 citations per year.

David Wechsler occupies the third position in Table 2 with his paper on the evaluation of the report entitled "A standardized memory scale for clinical use." Wechsler devoted his research at the Bellevue Psychiatric Hospital in New York to the operation of memory and intelligence, devising ways of measuring the intellectual ratios and ratios of memory. This article describes how to obtain a MQ (memory quotients), focusing on spatial and temporal orientation, mind control, immediate memory of logical material, forward and reverse, digit visual reproduction and learning and recalling/retaining, using a list of 10 associated partners. This article has received a total of 481 citations and an average of 6.77 citations. D. Wechsler is the author of the Wechsler Adult Intelligence Scale (WAIS), Wechsler Intelligence Scale for Children (WISC) and the Wechsler Preschool and Primary Scale of Intelligence (WPPSI), which has worldwide recognition.

Paolucci, Genuis, and Violato's (2001) article "A meta-analysis of the published research on the effects of child sexual abuse," which again stresses the popularity of articles dealing with the analysis of existing research, holds the fifth position. Interestingly, the top three articles date from the nineteen forties and nine articles in this list date from the same decade. Four of the ten most cited articles are from the 2000's, which is significant because despite the short time lapsed after their publication, they have obtained a considerable amount of recognition from other scholars. A remarkable case is that of the article by Dooley, Pyzalski, and Cross (2009), which receives 28.29 citations per year and appears in the seventh position of the chart. This qualitative and conceptual study focused on similarities and differences between cyberbullying and bullying. The discussion on this issue continues due to the increase in cases of harassment and cyberbullying suffered by children and adolescents.

#### **Most Influential Countries**

Perhaps unsurprisingly, authors from the USA rank first with 4170 studies and 19,920 total citations received. Articles published in the USA are the most cited, with 18 articles receiving more than 75 citations, 56 items receiving between 50 and 74 citations, and 159 articles receiving between 25 and 49 citations (Table 3).

On another note, the first four countries on the list -USA, Canada, UK, and Australiaare Anglophone countries, which is to be expected to some extent given that the language the journal publishes in is English and other countries may diversify their publication in journals in other languages.

**Table 3.** The Most Productive Countries in *The Journal of Psychology* (1936–2016).

R	Country	TS	TC	Н	TC/TS	≥75	≥50	≥25	≥10	≥5	Рор	TS/Pop	TC/Pop
1	USA	4170	19920	51	4,78	18	56	159	559	1031	313.232.044	13,31	63,60
2	Canada	253	2074	23	8,20	2	10	23	61	96	35.099.836	7,21	59,09
3	UK	137	1457	19	10,64	2	4	13	41	58	64.088.222	2,14	22,73
4	Australia	106	943	15	8,90	2	2	6	26	48	21.766.711	4,87	43,32
5	Germany	84	1507	20	17,94	3	7	15	35	53	81.471.834	1,03	18,50
6	Israel	79	595	12	7,53	2	2	5	21	28	7.473.052	10,57	79,62
7	Netherlands	38	376	11	9,89	0	1	5	14	16	16.847.007	2,26	22,32
8	Turkey	38	257	9	6,76	0	0	3	8	18	78.785.548	0,48	3,26
9	South Africa	36	117	7	3,25	0	0	0	1	13	49.004.031	0,73	2,39
10	China	49	615	13	12,55	1	3	8	18	26	1.336.718.015	0,04	0,46
11	Italy	24	176	7	7,33	0	1	2	5	9	61.016.804	0,39	2,88
12	Sweden	23	200	8	8,70	0	1	2	6	9	9.088.728	2,53	22,01
13	Nigeria	22	36	3	1,64	0	0	0	0	2	155.215.573	0,14	0,23
14	Taiwan	21	186	9	8,86	0	0	1	7	10	23.071.779	0,91	8,06
15	Belgium	17	182	8	10,71	0	0	2	8	9	10.431.477	1,63	17,45
16	New Zealand	17	56	5	3,29	0	0	0	0	5	4.290.347	3,96	13,05
17	Japan	15	122	5	8,13	0	1	1	3	5	126.475.664	0,12	0,96
18	Switzerland	14	163	8	11,64	0	0	2	7	9	7.639.961	1,83	21,34
19	India	14	70	6	5,00	0	0	0	3	6	1.189.172.906	0,01	0,06
20	Spain	13	209	6	16,08	1	2	2	6	8	46.754.784	0,28	4,47
21	France	13	76	5	5,85	0	0	0	5	6	65.312.249	0,20	1,16
22	Austria	12	264	7	22,00	1	1	1	5	9	8.217.280	1,46	32,13
23	Iran	10	24	4	2,40	0	0	0	0	4	77.891.220	0,13	0,31
24	Finland	10	19	3	1,90	0	0	0	0	1	5.259.250	1,90	3,61
25	Greece	8	85	3	10,63	1	1	1	2	3	10.760.136	0,74	7,90
26	Portugal	8	65	6	8,13	0	0	0	3	6	10.760.305	0,74	6,04
27	Singapore	8	52	4	6,50	0	0	0	2	4	4.740.737	1,69	10,97
28	Senegal	6	26	4	4,33	0	0	0	0	4	12.643.799	0,47	2,06
29	Pakistan	5	385	2	77,00	1	1	1	2	2	187.342.721	0,03	2,06
30	Philippines	5	33	3	6,60	0	0	0	1	3	101.833.938	0,05	0,32
31	Brazil	5	4	1	0,80	0	0	0	0	0	203.429.773	0,02	0,02
32	Poland	4	503	3	125,75	2	2	2	2	2	38.441.588	0,10	13,08
33	Norway	4	61	2	15,25	0	1	1	1	1	4.691.849	0,85	13,00
34	Ireland	4	16	2	4,00	0	0	0	0	2	4.670.976	0,86	3,43
35	Chile	4	10	2	2,50	0	0	0	0	0	16.888.760	0,24	0,59
36	Lebanon	4	4	1	1,00	0	0	0	0	0	4.143.101	0,97	0,97
37	South Korea	3	8	1	2,67	0	0	0	0	1	48.754.657	0,06	0,16
38	Mexico	3	4	1	1,33	0	0	0	0	0	113.724.226	0,03	0,04
39	Argentina	3	4	2	1,33	0	0	0	0	0	41.769.726	0,07	0,10
40	Georgia	3	2	1	0,67	0	0	0	0	0	4.585.874	0,65	0,44

 $Abbreviations \ are \ available \ in \ previous \ tables \ except: Pop = Population \ in \ thousands; TS/Pop = Total \ studies \ by \ person \ multi$ plied by one million; TC/Pop = Total citations by person multiplied by one million.

#### 50 Most Influential Institutions

Regarding the most productive institutions, 45 of the top 50 are in the USA, 2 in Israel, 2 in Canada, and 1 is in Turkey. The universities with a higher number of studies are from the USA and include the following: the Michigan State University (77), the Columbia University in the city of New York (76), the University of California, LA (68), Harvard University (63) and Ohio State University (59). The universities that follow are the University of Georgia (58), St. John's University (53), and New York University (51). As to the number of citations, the University of California ranks first with 840 citations. It is noteworthy to mention that St. John's University, which occupies the 7th position with 53 studies, is the institution of affiliation of John B. Murray, the second author with the most articles published in The Journal of Psychology according to Table 2. Therefore, some of these institutions may hold a high place in the list thanks to one or few authors.

Outside of the USA, institutions with greater productivity are Orta Dogu Teknik U (Turkey), in the 13<sup>th</sup> position, and University of Calgary (Canada), in position 15 (Table 4). The University of Calgary, in Canada, ranks 15<sup>th</sup> in the list but has more studies cited more than

Table 4. The Most Productive and Influential Institutions.

R	Institution	Country	TS	TC	Н	TC/TS	≥50	≥25	≥10	≥5	ARWU	QS
1	Michigan State U	USA	77	261	9	3,39	0	0	9	21	99	160
2	Columbia U	USA	76	494	12	6,50	2	6	14	24	8	20
3	U of California, LA	USA	68	840	10	12,35	1	1	11	15	10	28
4	Harvard U	USA	63	471	14	7,48	2	5	13	18	1	3
5	Ohio State U	USA	59	241	7	4,08	0	3	6	14	67	88
6	The U of Georgia	USA	58	181	6	3,12	1	2	5	9	151-200	431-440
7	St. John's University	USA	53	402	11	7,58	1	6	13	21	_	_
8	New York U	USA	51	174	6	3,41	1	1	6	8	27	46
9	The California State U	USA	50	545	13	10,90	2	2	20	28	_	_
10	VA Medical Center	USA	49	108	6	2,20	0	0	4	10	_	_
11	U of Rochester	USA	47	62	5	1,32	0	0	3	6	101-150	185
12	Kansas State U	USA	46	271	9	5,89	0	2	9	17	401-500	701+
13	Orta Dogu Teknik U	Turkey	42	349	10	8,31	0	2	12	24	_	
14	Pennsylvania State U	USA	39	97	5	2,49	0	0	4	6	60	95
15	U of Calgary	Canada	38	463	12	12,18	3	8	20	15	201-300	196
16	City U of NY	USA	37	165	7	4,46	0	2	6	8	301-400	501-550
17	Purdue U	USA	35	102	5	2,91	0	1	2	6	61	92
18	Stanford U	USA	35	98	5	2,80	0	0	2	8	2	2
19	Bar-llan U	Israel	32	248	6	7,75	1	2	6	13	401-500	601–650
20	Yale U	USA	30	357	7	11,90	2	5	6	8	11	15
21	Brigham Young U	USA	29	78	5	2,69	0	0	3	6	301–400	651–700
22	U of Maryland	USA	28	101	6	3,61	0	0	3	7	43	131
23	U of North Dakota	USA	27	236	9	8,74	1	2	7	13	—	151
24	U of Manitoba	Canada	27	177	7	6,56	1	2	4	8	301–400	501-550
25	lowa State U	USA	27	177	6	6,41	0	1	5	10	151–200	421–430
26	Tel Aviv U	Israel	27	165	8	6,11	0	1	6	11	151-200	212
27	Fordham U	USA	27	139	7	5,15	0	0	6	8	131-200	701+
28	U of Connecticut	USA	27	132	7	4,89	0	1	5	9	301–400	421–430
29	Indiana U	USA	27	77	6	2,85	0	0	2	8	201–300	291
30	U of Alabama	USA	27	65	5	2,63 2,41	0	0	3	5	201–300	601–650
31	U of Chicago	USA	26	207	6	7,96	2	3	4	9	9	10
32	Virginia Commonwealth U	USA	26	177	6	,	1	2	3	6	-	651–700
	3	USA		133		6,81	0		5 5		101–150	
33 34	Ohio U		26	94	6	5,12	0	1	5 4	6		701+
	Utah State U	USA	25		6	3,76	-	0		8	93	701+
35	U of Missouri	USA	24	103	5 7	4,29	0	2	3	5 10	301–400	501-550
36	Florida State U	USA	23	185		8,04	1	1	6		201–300	431–440
37	U of Arizona	USA	23	80	5	3,48	0	0	4	6	90	222
38	U of Florida	USA	23	63	5	2,74	0	0	0	7	83	185
39	U of Michigan	USA	22	184	7	8,36	1	2	6	9	22	23
40	U of lowa	USA	22	181	7	8,23	1	1	5	8	151–200	393
41	Temple U	USA	22	112	5	5,09	0	2	3	6	301–400	651–700
42	Boston College	USA	22	51	4	2,32	0	0	1	4	401–500	89
43	U of Tennessee	USA	21	231	8	11,00	0	4	6	14	151–200	461–470
44	Emory U	USA	21	130	6	6,19	0	1	5	9	101–150	149
45	The College of William and Mary	USA	21	92	5	4,38	0	1	2	6	_	551–600
46	Case Western Reserve U	USA	21	83	4	3,95	0	1	1	4	101–150	202
47	Marquette U	USA	21	56	4	2,67	0	0	1	4	_	701+
48	Northern Illinois U	USA	21	12	6	0,57	0	1	4	9	_	_
49	U of Houston	USA	20	130	6	6,50	0	1	4	7	201-300	601-650
50	U of Oklahoma	USA	20	120	6	6,00	0	0	2	12	401-500	461-470

Abbreviations are available in previous tables except: ARWU = Academic Ranking of World Universities; QS = Quacquarelli & Symonds University Ranking.

50 times (3), more than 25 times (8), and more than 10 times (20) than other institutions with more total studies do. These data imply a high quality and impact of the articles produced by authors in these institutions (Table 4).

The institutional contribution to the journal relates to both regional and internal university rankings according to their scientific productivity. Thus, among the ten universities with the largest number of articles published in the journal we can find Harvard University and Columbia University. They usually hold positions in the Top 10 of the Shanghai Ranking (2016), which is in an indicator of the high quality and quantity with which these institutions contribute to the growth of science.

Split rankings of Academic Ranking of World Universities (ARWU) universities uses four objective indicators: (1) number of articles published in scientific journals, especially the journals indexed in the Science Citation Index - Expanded and Social Sciences Citation Index, (2) the number of citations received by the researchers according to Thomson Reuters, and (3) the yield per capita of a university. It also includes (4) the number of graduates and researchers (Nobel prizes and Fields medals) awards. The methodology used in the ARWU is solid, stable, and transparent, hence the ARWU is a reference to describe quality and scientific productivity.

#### Most influential institutions of each five-year period since 1936

The Tables A.1 to A.16 in the appendix show the most influential institutions of each five-year period. This breakdown of the data allows for a more thorough assessment. The first striking fact shown by the tables is the progressive internationalization or diversification of the institutions in the ranking. While the rankings from 1936 until the 1980's show a clear predominance of American institutions, from then on, the presence of other institutions such as U. of Calgary (Canada) and Orta Dogu Teknik Universitesi or Bar-Ilan University (Israel) indicates a marked diversity regarding research origin. The second notable observation is the change in institutions appearing in the top positions. Harvard University ranks first in the first and third tables, in the second one this university ranks tenth, while it disappears altogether from 1962 onwards. The high variation in the names of the rankings since the 1960's may owe to the mentioned internationalization of the journal, but also to decisions or situations within the institutions such as the departure or retirement of a prolific scholar. Similarly, Columbia University appears in the top 11 positions until 1992, when it ceases to appear in the most influential institutions list. Finally, a third interesting observation is that of Orta Dogu Teknik Universitesi, in Turkey, which appears in the top positions since 1998. This institution has ranked first on two occasions (Tables A.7 and A.8).

#### Mapping the Journal of Psychology with VOS Viewer Software

In order to deepen in the analysis of the bibliographic data, this section develops a graphical visualization of the publications of The Journal of Psychology. To do so, the work uses the visualization of similarities (VOS) viewer software (Van Eck & Waltman, 2010). This software collects the bibliographic material and develops different bibliometric techniques including co-citation of journals (Small, 1973), co-occurrence of author keywords (Laengle

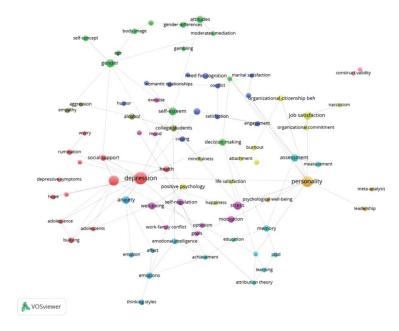


Figure 3. Co-occurrence of author keywords with a threshold of 5 documents and 100 connections.

et al., 2017) and bibliographic coupling (Kessler, 1963). Note that in this Section, for most of the figures and tables, the work uses the Web of Science database considering the publications in the journal between 1966 and 2015.

The first factor presented is co-occurrence of author keywords. The software identifies those keywords that appear more frequently in the title page of the publications of The Journal of Psychology and the network connections represents the keywords that appear more often in the same documents. Figure 3 shows that depression and personality are the two most common keywords in the journal. Most of the other keywords strongly connect with psychology also appear in the graph.

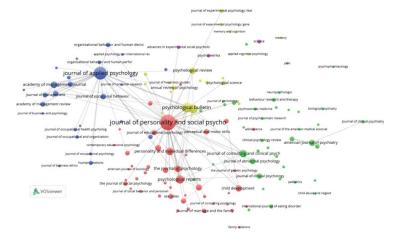


Figure 4. Co-citation of journals with a threshold of 50 citations and 100 connections.

 Table 5. Most Cited Journals in The Journal of Psychology.

	- chold	-0		3100 2000	u		3000	100		1001 2001		
	TOID I	מו		70007	n		17-0661	2		1700K1	n	
R	Journal	Cit	CLS	Journal	Cit	CLS	Journal	Cit	CLS	Journal	Cit	CLS
_	J Pers Soc Psychol	3032	2407.66	J Pers Soc Psychol	869	594.51	J Pers Soc Psychol	707	552.61	J Pers Soc Psychol	642	479.06
7	J Appl Psychol	1585	1220.19	J Appl Psychol	647	519.82	J Appl Psychol	335	253.51	J Appl Psychol	321	237.21
3	J Psychol	1445	1188.38	Psychol Bull	283	269.27	Psychol Bull	284	256.68	Psychol Rep	298	253.35
4	Psychol Bull	1283	1182.16	Am Psychol	203	190.08	Am Psychol	251	193.03	J Consult Clin Psych	233	205.30
2	Psychol Rep	1260	1101.35	Pers Indiv Differ	194	174.73	J Psychol	233	213.74	Am Psychol	230	184.51
9	Child Dev	1000	773.11	Acad Manage J	189	170.93	Psychol Rep	221	198.47	Psychol Bull	222	205.39
7	Am Psychol	928	788.65	J Psychol	154	147.59	J Consult Clin Psych	169	155.54	J Psychol	217	193.88
œ	J Consult Clin Psych	814	730.38	J Organ Behav	152	142.44	Pers Indiv Differ	167	142.54	Child Dev	181	120.68
6	J Soc Psychol	764	670.54	Pers Soc Psychol B	148	141.85	J Pers Assess	127	115.83	Am J Psychiat	155	117.67
10	J Abnorm Psychol	623	567.14	J Vocat Behav	146	131.45	J Abnorm Psychol	121	111.18	J Soc Psychol	153	137.91
1	J Abnorm Soc Psych	216	514.13	J Manage	132	124.85	Percept Motor Skill	120	104.49	J Abnorm Psychol	119	105.84
12	Psychol Rev	268	528.59	Pers Psychol	120	112.37	J Soc Psychol	115	103.56	J Clin Psychol	110	96.70
13	Percept Motor Skill	260	490.15	J Pers Assess	104	98.29	Am J Psychiat	109	92.76	Brit J Psychiat	101	84.29
14	J Pers	228	524.03	Acad Manage Rev	102	98.83	Child Dev	100	85.86	Psychol Rev	101	93.22
15	J Exp Psychol	529	402.74	Organ Behav Hum Dec	6	86.84	J Marriage Fam	100	74.90	Percept Motor Skill	86	82.69
16	Dev Psychol	209	453.52	Psychol Rev	6	94.37	Sex Roles	100	85.99	J Pers	95	90.58
17	J Educ Psychol	452	375.91	J Consult Clin Psych	87	82.42	Acad Manage J	96	85.27	J Couns Psychol	95	70.20
18	Pers Indiv Differ	420	368.51	Child Dev	98	75.23	Psychol Rev	94	89.15	Dev Psychol	06	80.47
19	J Clin Psychol	418	374.13	J Occup Organ Psych	79	76.87	Pers Soc Psychol B	6	84.88	J Educ Psychol	06	71.87
70	Acad Manage J	394	347.11	J Pers	79	76.67	J Pers	84	80.37	J Pers Assess	88	82.62
21	J Pers Assess	380	351.44	Psychol Rep	79	75.14	J Couns Psychol	83	56.99	Arch Gen Psychiat	81	72.81
22	J Consult Psychol	379	323.01	J Appl Soc Psychol	77	73.24	J Clin Psychol	81	78.16	Sex Roles	79	67.29
23	Am J Psychiat	371	313.88	Annu Rev Psychol	75	73.42	Arch Gen Psychiat	75	69.38	Organ Behav Hum Perf	69	96.79
24	J Couns Psychol	335	270.13	J Soc Psychol	73	70.62	Brit J Psychiat	69	62.48	Pers Psychol	69	29.88
25	Educ Psychol Meas	332	304.90	Sex Roles	69	59.57	Educ Psychol Meas	99	59.59	Acad Manage J	99	58.61
56	J Genet Psychol	323	286.75	J Educ Psychol	89	58.93	Hum Relat	9	96.09	Educ Psychol Meas	63	54.98
27	Pers Soc Psychol B	311	297.58	Behav Res Ther	29	60.40	Int J Eat Disorder	9	49.71	Pers Soc Psychol B	29	57.01
28	Pers Psychol	307	274.80	Int J Eat Disorder	29	45.12	J Educ Psychol	64	26.09	Am Sociol Rev	28	51.18
59	J Marriage Fam	736	235.61	Psychol Sci	64	62.39	J Soc Behav Pers	63	58.37	Pers Indiv Differ	28	47.06
30	Sex Roles	279	241.90	J Abnorm Psychol	62	58.34	Acad Manage Rev	19	57.32	Science	25	49.26

Abbreviations: Cit = Citations; CLS = Citation link strength.

Another interesting element examined is co-citations of journals highly cited in The Journal of Psychology. Co-citation occurs when two journals receive a citation from the same document of a third journal. Figure 4 presents the co-citation network of the journal.

The Journal of Personality and Social Psychology and the Journal of Applied Psychology are the most cited journals and have the strongest network in the journal. The majority of the journals are from the psychology area although, notably, some management journals also appear in the figure. In order to obtain a more specific picture of the most cited journals in The Journal of Psychology, Table 5 presents the Top 30 considering a global perspective and the evolution over the last three decades.

The results of the table confirm the results of Figure 4. Additionally, most of the journals focus on psychology although some management journals also appear in the list, including the Journal of Management and the Academy of Management Review.

To analyze co-citation of documents, Table 6 and Figure 5 present the thirty most cited documents in the journal.

Regarding the most cited authors in the Journal of Psychology, the software develops cocitation of authors. Figure 6 presents the results considering a threshold of 50 citations and the 100 most representative connections. Note that for building this figure, the work uses the Scopus database.

Some very well-known authors in psychology appear highly cited in the journal. Among others, it is worth noting Bandura, Furnham, Beck, McRae, Ryan, and Schaufeli.

**Table 6.** Top 30 Most Cited Documents in *The Journal of Psychology*.

Rank	Year	Reference	Type	TC	Co-Citations
1	1986	Baron RM, J Pers Soc Psychol, V51, P1173	Α	60	39
2	1965	Rosenberg M, Soc Adolescent Self	В	58	34
3	1957	Osgood C, Measurement Meaning	В	53	22
4	1966	Rotter JB, Psychol Monog, V80	Α	53	18
5	1962	Winer BJ, Statistical Principl	В	47	5
6	1960	Rokeach M, Open Closed Mind	В	40	24
7	1991	Aiken LS, Multiple Regression	В	39	28
8	1971	Winer BJ, Statistical Principl	В	38	10
9	1950	Adorno TW, Authoritarian Person	В	36	22
10	1956	Siegel S, Nonparametric Statis	В	33	13
11	1974	Bem SL, J Consult Clin Psych, V42, P155	Α	32	8
12	1957	Festinger L, Theory Cognitive Dis	В	32	14
13	1958	Kaiser HF, Psychometrika, V23, P187	Α	31	14
14	1967	Coopersmith S, Antecedents Self Est	В	30	13
15	1984	Lazarus RS, Stress Appraisal Cop	В	30	22
16	1985	Diener E, J Pers Assess, V49, P71	Α	29	24
17	1960	Crowne DP, J Consult Psychol, V24, P349	Α	28	10
18	1978	Nunnally JC, Psychometric Theory	В	28	22
19	1953	Taylor JA, J Abnorm Soc Psych, V48, P285	Α	28	9
20	1966	Rotter JB, Psychol Monographs, V80	Α	27	16
21	1988	Cohen J, Stat Power Anal Beha	В	25	14
22	1958	Heider F, Psychol Interpersona	В	24	10
23	1966	Cattell RB, Multivar Behav Res, V1, P245	Α	23	12
24	1964	Crowne DP, Approval Motive	В	23	12
25	1972	Dion K, J Pers Soc Psychol, V24, P285	Α	23	4
26	1997	Bandura A, Self Efficacy Exerci	В	22	12
27	1999	Hu LT, Struct Equ Modeling, V6, P1	Α	22	17
28	1968	Kirk RE, Expt Design Procedur	В	22	5
29	1953	McClelland DC, Achievement Motive	В	22	17
30	1988	Watson D, J Pers Soc Psychol, V54, P1063	Α	22	15

Abbreviations available in previous tables.

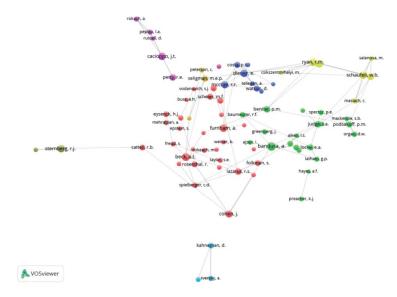


Figure 5. Co-citation of authors with a threshold of 50 citations and 100 connections.

Finally, let us develop a graphical visualization of the most productive institutions. For doing so, the study uses bibliographic coupling between institutions. Recall that bibliographic coupling, (Kessler, 1963) of institutions occur when two documents of different institutions cite the same third document of another university. Figure 6 shows the results.

The results are consistent with those of Table 4 although the figure visualizes how the institutions are connected between each other. Particularly, it is worth noting that

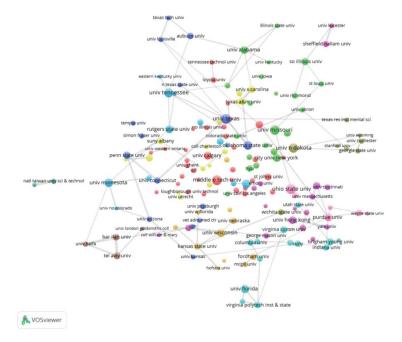


Figure 6. Bibliographic coupling of universities with a threshold of 5 documents and 100 connections.



institutions from the same country tend to be more close to each other due to co-authorship and a research profile that follows similar patterns.

#### **Conclusions**

This article provides a bibliographic overview of the research published in The Journal of Psychology: Interdisciplinary and Applied throughout its long tenure, starting from the data gathered from Scopus and the use of bibliometric indicators. The results show that The Journal of Psychology has gone through different stages. The first stage (until 1962) captured the period in which the number of publications and their impact on the scientific community was modest, with the exception of the year 1946. That year Heider published his article on "Attitudes and cognitive organization," which has received over a thousand citations. The second stage (1962-1984) was a period in which the number of publications from the journal increased considerably. The third stage, from 1985 to 2002 was a period in which the number of publications decreased slightly, but a growing trend emerges regarding the number of citations. During this stage, there are fewer articles with more than 75 citations, but the groups from 25 to 74 citations increases significantly (136). This is important because it denotes some dispersion concerning the weight of the citations.

From 2003 on, the outcome noticeably changes; that is, the total number of published articles diminishes, but the number of citations is maintained (not counting the three most current years). 2009 is a notable exception; with more than 1500 citations being reported. That year (2009) two articles on bullying and cyberbullying were published, both receiving great acceptance: one written by Dooley, Pyzalski and Cross (2009), and the other by Gradinger, Strohmeier and Spiel (2009).

Analysis of the institutions and countries has shown that American universities are leading publishers in the journal, followed by the UK and Australia, all of them predominantly English-speaking countries. In recent years, however, there has been an expansion of universities and countries, giving coverage to research from institutions located in the Middle East (Israel, Pakistan, Lebanon, etc.), Europe (Germany, Netherlands, Turkey, Italy, Sweden, Belgium, Switzerland, France, Spain, etc.) countries in Southeast Asia (China, Taiwan, Japan, India, New Zealand, etc.), African countries (South Africa, Nigeria, Senegal, etc.) and countries in South America (Chile, Argentina, Mexico, etc.). The increase in the diversity of institutional representation is a reflection of the increased expansion of research in other parts of the world.

Results from the bibliographic examination revealed that, there is a core/nucleus composed of the 10 most cited authors whose articles receive roughly 50% of the citations of the journal. A large amount of citations depends on few articles and a large number of articles receive the same number of citations than the core which is rather low.

Finally, this bibliometric analysis of the journal has some limitations that should be noted. First, research in psychology is very broad and interdisciplinary, and although the journal is interdisciplinary, publishing a diverse number of topics, not all of them are reflected in the journal. Second, this bibliometric analysis gives every author a unit just as Scopus does. Therefore, the articles signed by several authors have better results. For example, two articles with four signatories provide two units to each of them, with a result of eight. Thus, from

this example, the number of signatories leads to a better outcome. However, in general, this issue does not significantly affect the results. Thirdly, the increase in citations within the last few years is a reflection of the overall growing condition of the journal. Widespread access to documental sources through the internet (e.g., Web of Science, ProQuest, Scopus, PsycINFO PubMed, MEDLINE, Current Contents, among others) facilitates the spread and the knowledge of research conducted by the researchers themselves. Despite these limitations, this bibliometric analysis identifies the most influential trends presented in The Journal of Psychology, and should prove valuable to potential authors and the journal's general readership.

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#### **Appendix**

Temporal Evolution of the Most Productive Institutions in The Journal of Psychology

**Table A1.** Period 1936–1949.

	1936–194	19			
R	Institution	TS	TC	Н	TC/TS
1	Harvard U	43	356	7	8,28
2	Columbia U in the City of NY	37	225	6	6,08
3	Ohio State University	17	54	2	3,18
4	Stanford University	16	22	3	1,38
5	Howard University	12	19	2	1,58
6	Northwestern University	11	23	3	2,09
7	Yale U	10	179	3	17,90
8	Princeton University	10	23	2	2,30
9	Wesleyan University Middletown	9	38	5	4,22
10	University of Illinois	9	26	4	2,89
11	Case Western Reserve U	9	20	3	2,22
12	University of Iowa	8	26	3	3,25
13	U of California, LA	8	0	0	0,00
14	Connecticut College	7	19	3	2,71
15	Yale Laboratories of Primate Biology	7	14	2	2,00
16	Hunter College	7	11	2	1,57
17	University of Rochester	7	7	1	1,00
18	New York University	6	18	1	3,00
19	Syracuse University	6	17	3	2,83
20	Wellesley College	6	16	2	2,67
21	University of Southern California	6	13	2	2,17
22	The Lifwynn Foundation	5	2	1	0,40
23	University of Georgia	5	2	1	0,40
24	College of the City of New York	5	1	1	0,20
25	Los Angeles City College	5	0	0	0,00
26	Smith College	4	211	1	52,75
27	Western State Psychiatric Institute and Clinic	4	28	2	7,00
28	New York Psychiatric Institute	4	19	2	4,75
29	University of Michigan	4	3	1	0,75
30	Harvard Psychological Clinic	4	0	0	0,00



**Table A2.** Period 1950–1959.

	1950	–1959			
R	Institution	TS	TC	Н	TC/TS
1	Michigan State University	20	61	4	3,05
2	University of Rochester	18	15	2	0,83
3	Columbia University in the City of NY	17	133	6	7,82
4	New York University	16	118	4	7,38
5	Harvard University	13	119	4	9,15
6	Indiana University	12	29	4	2,42
7	University of California, LA	11	57	4	5,18
8	Clark University	10	43	4	4,30
9	Tufts University	10	25	3	2,50
10	VA Medical Center	10	24	2	2,40
11	Stanford University	10	22	2	2,20
12	Johns Hopkins University	9	98	3	10,89
13	The Mount Sinai Hospital	9	56	3	6,22
14	University of Connecticut	8	43	4	5,38
15	Brandeis University	7	9	1	1,29
16	Long Island University	7	8	1	1,14
17	University of Chicago	6	87	4	14,50
18	Purdue University	6	22	3	3,67
19	George Washington University	6	0	0	0,00
20	Yale University	5	107	3	21,40
21	Miami University	5	53	3	10,60
22	The Menninger Foundation	5	46	2	9,20
23	Northwestern University	5	35	4	7,00
24	Massachusetts Institute of Technology	5	31	2	6,20
25	University of Michigan	4	22	3	5,50
26	Boston University	5	13	2	2,60
27	Psychiatric Institute	5	12	2	2,40
28	Pennsylvania State University	5	9	2	1,80
29	Brooklyn College	5	2	1	0,40
30	University of California, Santa Barbara	5	2	1	0,40

**Table A3.** Period 1960–1969.

	1960–19	69			
R	Institution	TS	TC	Н	TC/TS
1	Michigan State University	32	67	5	2,09
2	University of Georgia	21	54	4	2,57
3	VA Medical Center	20	41	3	2,05
4	University of Rochester	15	3	1	0,20
5	New York University	14	8	2	0,57
6	Boston College	13	22	2	1,69
7	Ohio State University	12	18	3	1,50
8	City University of New York	11	61	3	5,55
9	University of Calgary	10	98	3	9,80
10	University of California, Los Angeles	10	82	3	8,20
11	Pennsylvania State University	10	20	2	2,00
12	University of Bridgeport	10	14	2	1,40
13	University of Alabama	9	5	1	0,56
14	Ohio University	9	1	1	0,11
15	University of Maryland	8	22	3	2,75
16	University of Manitoba	8	16	2	2,00
17	Columbia University in the City of NY	7	16	3	2,29
18	California State College at Los Angeles	7	7	1	1,00
19	University of Kentucky	7	3	1	0,43
20	University of Wisconsin	7	2	1	0,29
21	Louisiana State University	7	1	1	0,14
22	Wellesley College	6	56	1	9,33
23	Case Western Reserve University	6	51	1	8,50
24	Yale University	5	46	2	9,20
25	University of Árizona	6	14	3	2,33
26	University of Southern California	6	14	2	2,33
27	Purdue Úniversity	6	11	3	1,83
28	University of Iowa	6	11	2	1,83
29	Rutgers, The State University of New Jersey	6	10	2	1,67
30	University of Utah	6	1	1	0,17

**Table A4.** Period 1970–1979.

	1970–1979						
R	Institution	TS	TC	Н	TC/TS		
1	University of Georgia	30	129	7	4,30		
2	UC Berkeley	20	117	6	5,85		
3	University of California, Los Angeles	20	94	5	4,70		
4	University of Texas at Austin	19	119	5	6,26		
5	University of Manitoba	17	109	6	6,41		
6	University of Wisconsin Madison	17	83	6	4,88		
7	University of Florida	17	76	7	4,47		
8	Brigham Young University	16	46	3	2,88		
9	Virginia Commonwealth University	16	41	4	2,56		
10	Ohio State University	16	38	4	2,38		
11	University of Pennsylvania	15	173	7	11,53		
12	Purdue University	14	43	4	3,07		
13	University of Arizona	13	281	7	21,62		
14	University of Calgary	13	172	5	13,23		
15	VA Medical Center	13	49	3	3,77		
16	University of Kentucky	13	47	4	3,62		
17	New York University	13	47	5	3,62		
18	Pennsylvania State University	13	24	3	1,85		
19	University of Maryland	12	46	3	3,83		
20	Michigan State University	12	33	3	2,75		
21	City University of New York	12	17	2	1,42		
22	Temple University	11	36	3	3,27		
23	Rutgers, The State University of New Jersey	10	72	5	7,20		
24	Yale University	10	69	3	6,90		
25	Texas A and M University	10	67	3	6,70		
26	University of Missouri-Columbia	10	30	3	3,00		
27	Utah State University	10	29	2	2,90		
28	Indiana University	10	20	3	2,00		
29	New Mexico State University Las Cruces	9	20	3	2,22		
30	Arizona State University	9	15	2	1,67		



**Table A5.** Period 1980–1989.

1980–1989						
R	Institution	TS	TC	Н	TC/TS	
1	University of Texas at Austin	25	144	7	5,76	
2	Pennsylvania State University	21	54	5	2,57	
3	Texas A and M University	20	332	10	16,60	
4	University of Nebraska – Lincoln	19	375	12	19,74	
5	Louisiana State University	18	553	11	30,72	
6	California State University	18	171	7	9,50	
7	University of Arizona	18	112	6	6,22	
8	Kansas State University	17	51	5	3,00	
9	The University of Georgia	16	141	7	8,81	
10	Iowa State University	14	145	5	10,36	
11	Florida State University	13	179	6	13,77	
12	Ohio State University	13	164	6	12,62	
13	University of Wisconsin Madison	13	162	7	12,46	
14	University of Alabama	12	174	7	14,50	
15	Arizona State University	12	64	5	5,33	
16	Rutgers, The State University of New Jersey	11	90	5	8,18	
17	University of Cincinnati	10	86	5	8,60	
18	University of North Carolina at Chapel Hill	10	59	5	5,90	
19	Universite Laval	9	124	5	13,78	
20	University of Florida	9	87	6	9,67	
21	University of Maryland	9	57	4	6,33	
22	Tel Aviv University	9	42	4	4,67	
23	Catholic University of America	9	33	4	3,67	
24	University of Alberta	8	111	5	13,88	
25	University of Southern Mississippi	8	62	4	7,75	
26	University of North Carolina at Greensboro	8	51	4	6,38	
27	Fordham University	8	50	4	6,25	
28	New York University	8	29	3	3,63	
29	Columbia University in the City of New York	8	21	3	2,63	
30	American University of Beirut	8	20	4	2,50	



**Table A6.** Period 1990–1999.

1990–1999						
R	Institution	TS	TC	Н	TC/TS	
1	University of Wisconsin Madison	18	791	14	43,94	
2	St. John's University	15	122	4	8,13	
3	University of Nebraska – Lincoln	14	390	10	27,86	
4	Texas A and M University	13	269	9	20,69	
5	Bar-Ilan University	13	173	5	13,31	
6	California State University	12	170	5	14,17	
7	Ohio State University	12	103	7	8,58	
8	Northern Illinois University	11	119	5	10,82	
9	University of Texas at Austin	10	92	6	9,20	
10	Ulster University	10	46	4	4,60	
11	The College of William and Mary	10	20	2	2,00	
12	Western Michigan University	9	391	3	43,44	
13	Mississippi State University	9	391	3	43,44	
14	University of Connecticut	9	122	5	13,56	
15	Michigan State University	9	63	5	7,00	
16	Pennsylvania State University	8	191	5	23,88	
17	University of Georgia	8	154	6	19,25	
18	Columbia University in the City of NY	8	110	5	13,75	
19	Lehigh University	8	104	7	13,00	
20	University of Nebraska at Omaha	8	87	4	10,88	
21	Tel Aviv University	8	50	4	6,25	
22	Ball State University	8	40	4	5,00	
23	University of Pennsylvania	7	195	5	27,86	
24	City University of New York	7	57	3	8,14	
25	Lewis University	7	42	3	6,00	
26	University of Alaska Anchorage	7	36	3	5,14	
27	University of Newcastle, Australia	7	13	3	1,86	
28	Iowa State University	6	100	3	16,67	
29	Orta Dogu Teknik Universitesi	6	97	4	16,17	
30	Vanderbilt University	6	34	2	5,67	



**Table A7.** Period 2000–2009.

	2000–2009							
R	Institution	TS	TC	Н	TC/TS			
1	Orta Dogu Teknik Universitesi	17	94	7	5,53			
2	Texas A and M University	14	601	12	42,93			
3	University of North Dakota	14	122	6	8,71			
4	University of Wisconsin Madison	12	617	12	51,42			
5	Pennsylvania State University	11	324	8	29,45			
6	University of Minnesota Twin Cities	10	492	9	49,20			
7	University of North Carolina at Chapel Hill	9	848	8	94,22			
8	University of Virginia	9	610	8	67,78			
9	Florida State University	9	467	8	51,89			
10	University of Hong Kong	9	246	8	27,33			
11	University of Tennessee at Chattanooga	9	163	6	18,11			
12	Georgia State University	8	380	7	47,50			
13	Lehigh University	8	250	8	31,25			
14	University of Georgia	8	209	6	26,13			
15	Loughborough University	8	81	6	10,13			
16	Kansas State University	8	64	5	8,00			
17	California State University	8	61	5	7,63			
18	University of Nebraska – Lincoln	7	292	6	41,71			
19	University of Houston	7	199	5	28,43			
20	Universiteit Gent	7	147	6	21,00			
21	Rutgers, The State University of New Jersey	7	85	5	12,14			
22	University of California, Los Angeles	6	471	5	78,50			
23	Louisiana State University	6	288	6	48,00			
24	University Michigan Ann Arbor	6	283	6	47,17			
25	UCL	6	220	4	36,67			
26	University of Pennsylvania	6	213	6	35,50			
27	Columbia University in the City of NY	6	187	6	31,17			
28	University of Arizona	6	155	6	25,83			
29	University of Calgary	6	143	4	23,83			
30	George Mason University	6	142	5	23,67			

**Table A8.** Period 2010–2016.

2010–2016					
R	Institution	TS	TC	Н	TC/TS
1	Orta Dogu Teknik Universitesi	7	33	3	4,71
2	Erasmus University Rotterdam	6	43	1	7,17
3	National Taiwan University of Science and Technology	6	21	3	3,50
4	University of Oklahoma	5	18	3	3,60
5	Universitat Koblenz-Landau	5	16	1	3,20
6	Ben-Gurion University of the Negev	5	4	1	0,80
7	City University of Hong Kong	5	0	0	0,00
8	Tel Aviv University	4	38	3	9,50
9	Bar-llan University School of Social Work	4	21	3	5,25
10	KU Leuven	4	15	2	3,75
11	University of Arizona	4	13	1	3,25
12	Brock University	4	12	1	3,00
13	Georgia State University	4	12	1	3,00
14	Universidad de Granada	4	9	2	2,25
15	University of Connecticut	4	4	1	1,00
16	University of Calgary	4	3	1	0,75
17	College of Charleston	4	2	1	0,50
18	University of West Florida	4	2	1	0,50
19	Brunel University London	3	65	3	21,67
20	University of Haifa	3	21	3	7,00
21	Universitat Heidelberg	3	15	2	5,00
22	Iowa State University	3	13	2	4,33
23	Christian-Albrechts-Universitat zu Kiel	3	11	1	3,67
24	Kansas State University	3	2	1	0.67
25	Brigham Young University	3	1	1	0,33
26	Bowling Green State University	3	1	1	0,33
27	University of Liverpool	3	1	1	0,33
28	McGill University	3	0	0	0,00
29	Kennesaw State University	3	0	0	0,00
30	University of Macau	3	0	0	0,00