



# **An analysis of the academic impact of adult education journals from the perspective of high citation frequency**

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**Abstract:** The cited frequency reflects the academic influence of the paper to a certain extent. In order to understand the development status of adult education, it is an effective way to study and analyze the articles published in adult education journals. Taking China Adult Education as an example, by using the cited journal query function of the Chinese citation database, the cited statistics of all online papers of China Adult Education from its inception in 1992 to December 31, 2021 were carried out. By analyzing the top 100 cited papers in terms of subject distribution, publication time, funding and author group, It also provides data support for the selection and use of manuscripts, column construction, theme selection and author team construction of adult education journals in the future.

**Keywords:** Adult education journals, academic influence, highly cited papers

## **I. RESEARCH OBJECTIVE**

The influence of a journal refers to the effect of the research results published by the Journal on its related academic research and application in a certain period of time. It will be affected by various factors such as the cognitive level and recognition degree of the internal and external circles during this period. It is the academic viewpoints, ideas, concepts, theories, methods, discoveries, inventions, facts, emotions and other contents disseminated by the academic journal and the brand of the journal, The ability to gain their recognition and even change their thinking, views and behaviors. Through the analysis of the influence of this journal [1], we can effectively evaluate it scientifically and improve its internal academic level and quality. Papers with high citation frequency refer to academic papers with high citation frequency and long citation period [2]. Because the frequency of a paper being cited is, to a certain extent, a reflection of the degree of recognition of researchers in the same field. Therefore, some scientific research awards take the cited frequency as one of the evaluation indicators. And the cited frequency of periodicals is the external manifestation of the influence of periodicals. Generally speaking, the higher the total citation frequency of a journal, the higher the relative recognition.

## **II. ANALYSIS OF CITED PAPERS**

The statistical data of this article comes from the "China Citation Database". By searching the "cited journals", enter "China Adult Education" in the search item. The search time is from the inception of the journal in 1992 to December 31, 2021, and the search time is 11:00 a.m. on May 14, 2022. The results show that the database contains 20148 journals in the retrieval period, with a total of 95144 citations and an average of 4.72 citations. Among them, the total citation frequency of the top 100 highly cited papers (accounting for 0.5% of all published papers) is 5363, and the average citation frequency of the papers is 53.63 (accounting for 5.64% of the total citations). In other words, the highly cited papers accounting for 0.5% of all published papers generate a citation frequency of 5.64%. Through the bibliometric analysis of the column distribution, time distribution, author group, fund paper status and research topics of the top 100 highly cited papers, we can find the topic selection characteristics of the highly cited papers of the journal, and provide help for creating advantageous topics, key column construction and author team construction in the future.

### **A. Research topic analysis of highly cited papers**

The classification number of Chinese library refers to the classification code obtained by the subject analysis of scientific and technological documents based on the classification method of Chinese library, and the organization of documents by category according to the subject attribute and characteristics of the contents of the documents. Therefore, there is a certain scientific basis for classifying the subject of the paper according to the classification number of the Chinese Library Classification [3]. Extract the Chinese library classification number of the top 100 papers in the high cited papers, and classify and analyze their research topics. Limited to the length, only two or more subject words are listed, as shown in Table 1.



**Table 1. Theme distribution of the top 100 highly cited papers**

Theme		Number of papers	
Teaching theory and teaching method	Vocational Technology	10	26
	Higher education	11	
	Teaching method and teaching organization	5	
School management		12	
Ideological and political education and moral education		10	
Adult education and amateur education		10	
English Language Teaching		10	
Vocational Education Technology		7	
Comprehensive development education		4	
Higher education theory		3	
Teacher		3	
Teaching research and Reform		2	
Audio visual teaching and computerized teaching		2	
Education reform and development		2	
Physical education		2	

The statistical results show that "teaching theories and teaching methods" account for a considerable proportion, with a total of 26 articles, accounting for 26% of the total, including 10 "teaching theories and teaching methods" for vocational technology, 11 "teaching theories and teaching methods" for higher education, and 5 "teaching methods and teaching organizations". 10 articles on "Ideological and political education and moral education" and 10 articles on "adult education and amateur education". These research topics are also consistent with the purpose of the journal, and are also the research hotspots in this field. Therefore, we can focus on the consideration and construction of such topics, which is of guiding significance to the practical work of continuing education.

### B. Time distribution of papers with high citation frequency

Select the top 100 papers with high citation frequency. See Table 2 for the distribution of publication time.

**Table 2 Distribution of publication years of top 100 highly cited papers**

Publication year	Number of articles
2000	3
2001	6
2002	6
2003	2
2004	2
2005	10
2006	14
2007	23
2008	9



2009	8
2010	8
2011	4
2012	0
2013	4
2014	2

It can be seen from table 2 that the papers with high citation frequency were published from 2005 to 2010, among which, the highest number was 23 in 2007, 14 in 2006 and 10 in 2005. In order to analyze the attention and research hot issues of each paper with high citation frequency, the year-on-year citation of each paper after publication is analyzed, and the year-on-year citation of the first 30 papers is listed here (Table 3). Based on the year-on-year citation frequency distribution of a single paper, we can find that there are two situations. One situation is that the citation frequency is in a zigzag distribution, such as the summary of heuristic teaching methods and Thinking on the reform of English Teaching in higher vocational colleges. This distribution shows that the paper has been paid attention to for a long time and is also one of the research hotspots in this field; There is another situation, such as the discussion on the mode of school enterprise cooperation and the discussion on the composition of College Students' employment competitiveness. The distribution of cited frequency is in the shape of a parabola. Generally speaking, such papers have certain timeliness, that is, 3-8 years after publication are the high-efficiency period of cited [2]. After this period, the corresponding attention will drop.

**Table 3 Analysis of citation frequency of highly cited papers year by year (top 30)**

Title of the paper	First author	Publication year	N	N <sub>0</sub>	N <sub>1</sub>	N <sub>2</sub>	N <sub>3</sub>	N <sub>4</sub>	N <sub>5</sub>	N <sub>6</sub>	N <sub>7</sub>	N <sub>8</sub>	N <sub>9</sub>	N <sub>10</sub> -N <sub>19</sub>
Discussion on Project-based Teaching in higher vocational colleges	Hong Xiao	2008	189	4	12	15	21	41	24	31	19	12	10	↙
The development trend of Vocational Education in developed countries and Its Enlightenment	Le Chuanyong	2001	131	5	5	1	8	8	17	14	16	9	18	30
A review of contemporary American adult learning theory	Wang Haidong	2007	122	1	8	8	13	10	7	15	19	15	16	10
Application of micro courses in College Classroom Teaching	Liu Guihua	2014	117	1	24	43	48	1	↙					
On the cultivation of vocational quality of higher vocational students	Lu Ganglan	2008	102	0	5	9	12	11	12	18	9	13	13	1
Impact of "Moke" on traditional higher education and Countermeasures	Dong Lingling	2013	89	0	14	31	32	12	↙					
An analysis of the methods and approaches of mental health education for higher vocational students	Xu Bingqian	2007	88	1	4	9	15	19	12	10	4	4	2	9
Discussion on action oriented teaching mode	Cai Xiufang	2009	79	3	7	4	8	21	10	7	10	8	1	↙
Reflections on English teaching reform in Higher Vocational Colleges	Sun yingyue	2009	79	0	13	10	11	9	16	9	9	2	↙	
On the design and implementation strategy of "campus Sunshine Sports"	Zhang Rushen	2007	76	0	5	11	16	9	8	4	11	5	4	2



Discussion on the composition of College Students' Employment Competitiveness	Zheng Yulan	2007	73	0	2	7	12	14	11	2	9	6	6	4
On the pedagogical significance of cooperative learning	Wang Tan	2001	72	0	0	2	2	1	5	2	5	11	10	35
Community education · lifelong education · learning society	Li Yixian	2001	71	0	2	5	8	2	7	6	3	6	2	30
The beginning of the reversal of the traditional educational model - the practice and experience of "Reversal classroom" in adult college business English writing	Chen Xiaoping	2013	67	0	9	17	25	14	3	∟				
On the application of case teaching method	Zheng Wenzhao	2006	66	0	3	7	9	8	10	6	9	8	5	∟
A review of the research on heuristic teaching methods	Tao Zhaoling	2007	65	0	1	11	4	10	9	8	2	4	10	7
Discussion on the mode of school enterprise cooperation	Zhao Xin	2007	65	0	3	7	9	8	10	6	9	8	5	∟
The study style of college students and the construction of study style in Colleges and universities	Yao Yi	2006	64	1	5	7	3	4	8	7	6	8	6	10
A study of College English classroom teaching from the perspective of ecology	Shan Yan	2007	63	0	2	5	7	4	8	11	10	9	6	1
Investigation and Research on the problems of curriculum convergence in middle and higher vocational schools	Huo Xiaoxiang	2009	63	0	0	2	4	13	13	12	11	8	∟	
Problems and Countermeasures in post practice in Higher Vocational Colleges	Li Juan	2009	62	0	8	9	12	13	8	5	4	3	∟	
A comparative study on the training mode of graduate students with academic degree and professional degree	Ye Hong	2007	61	0	0	0	6	8	7	12	9	9	4	6
On the practical reform of physical education curriculum in Higher Vocational Colleges	Zhang Xianglin	2006	60	0	0	6	8	6	8	5	7	10	3	7
Investigation and Countermeasures on the study motivation of foreign students in China	Huang Nianfeng	2008	60	0	3	3	5	9	7	7	13	6	7	∟
CBI concept and bilingual teaching	Dai Qingning	2007	59	0	2	2	7	6	7	6	6	7	9	7
Analysis on the characteristics of adult learning	Du Xiufang	2006	59	0	10	8	8	6	5	5	4	3	8	2
Theoretical development of employee training in Enterprises	Yang Li	2003	59	0	0	1	1	4	2	5	8	8	7	22
On the implementation of College Students' career planning	Guan Yong	2005	57	0	4	7	15	10	9	4	4	3	1	∟
Discussion on the construction of entrepreneurial environment for college students in the new century	Chen Yuxian	2006	57	0	1	4	2	8	7	7	6	4	5	13
On Teachers' happiness	Peng Wenxiao	2006	55	0	1	5	4	8	4	9	6	9	4	6



Note: N is the total citation frequency; Ni is the citation frequency in the first year after publication, I = 0,1,2,3, ... 0 is the published year and the most recently cited year is 2017; something is the symbol up to which the preceding data correspond to the cited year of 2017

### C. Analysis of the funding of high cited papers

The application of the fund project is a series of strict examination procedures after the researcher's declaration and the Expert's evaluation and the approval of the Competent Department of the fund, which can apply the topic down, indicating that the topic selection of the topic should have a certain value [4]. But does it make sense to use a foundation project as a yardstick? Among the top 100 papers with high citation frequency, there are 19 papers supported by fund projects, accounting for 19%. Among them, there are 10 papers supported by provincial fund projects and 5 papers supported by municipal fund projects, there are four school-level fund projects, none of the top three most-cited papers ("Project-based teaching in higher vocational colleges", "Trends in vocational education development in developed countries and their implications", and "A review of contemporary American adult learning theory") were funded by the foundation, therefore, it can be seen that there is no direct correlation between the funding and the quality of papers and the frequency of citations, indicating that the journal pays more attention to the academic level of research, and does not regard the funding as the necessary condition for the admission of papers, the subject matter and the academic quality of the research are still the primary conditions.

### D. Author group analysis of papers with high citation frequency

According to the citation frequency from high to low, 132 authors are involved in the top 100 highly cited papers, of which the top 100 highly cited papers of each author are at most 2. See Table 4 for details. It can be seen from the table that a total of six authors have published 12 highly cited papers, with a citation frequency of 720 times, making a great contribution to the total citation frequency. Therefore, in the construction of the author team, we should actively establish a long-term cooperative relationship with such high-yield and high-quality authors, and form a high-level author team over time.

**Table 4 Analysis of authors of highly cited papers**

Author	Title	Number of articles	Total cited frequency
Le Chuanyong	The development trend of Vocational Education in developed countries and Its Enlightenment	2	174
	Reflections on the establishment of "credit bank" in adult education		
Liu Guihua	Application of micro courses in College Classroom Teaching	2	158
	Research on the application of flipped classroom in the basic courses of computer culture in Colleges and Universities		
Li Juan	Exploration and Research on the construction of "integration of theory and practice" Laboratory	2	106
	Problems and Countermeasures in post practice in Higher Vocational Colleges		
Dai Qingning	CBI concept and bilingual teaching	2	98
	A study on Hierarchical Teaching of College English		
Guan Yong	On the implementation of College Students' career planning	2	102
	On the construction of the whole process employment		



	guidance system for College Students		
Li Chunqin	Research on the construction of entrepreneurship education teachers in Colleges and Universities	2	82
	Research on the construction of entrepreneurship education curriculum system in Colleges and Universities		

### III. SUMMARY AND PROSPECT

To sum up, in order to understand the current development and research hotspots of China's adult education, taking China Adult Education as an example, through the analysis of the column distribution, topic distribution, author group distribution and other aspects of all the online papers of the journal from its inception in 1992 to 2017, it can be concluded that in terms of topic selection, "teaching theory and teaching method" account for a considerable proportion, accounting for 26% of the total, These research topics are also consistent with the purpose of the journal, and are also the research hotspots in this field. Therefore, we can focus on the consideration and construction of such topics, which is of guiding significance to the practical work of continuing education; There is no direct correlation between the fund support and the quality of the paper and the frequency of citation, and it is not necessary to have the fund project support as the necessary condition for the paper employment; Six authors, including Le Chuanyong, published 12 highly cited papers, with a citation frequency of 720 times, making a great contribution to the total citation frequency. For such high-yield and high-quality authors, we should actively establish a long-term cooperative relationship to form a high-level author team.

In addition, China Adult Education started to introduce the author's title and academic qualifications from the 23rd issue of 2011. Therefore, in the future, we can analyze the correlation between the author's academic level and professional title level and the highly cited papers, and provide a basis for the selection of the author's identity. At the same time, we can also understand the current situation of Chinese adult education practitioners.

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