

Changes of knowledge sources concerning public sports policy (2001-2020): based on core journals of China sports science

Yongping Yu¹, Ming Lin², Xiao Liang^{3,*}, Zenghui Xi², Yifei Wang², Jianbo Sun², Dayu Niu², Xiaokun Mu², Zhuyu Yang², Jie Yang², and Lixin Wang⁴

¹Ludong University, Teacher and Education Department, 264025 Yantai, China

²Ludong University, Physical Education Department, 264025 Yantai, China

³Southwest University of political science and law, 401120 Chongqing, China

⁴Huaqiao University, College of Foreign Languages, 362021 Quanzhou, China

Abstract. This paper systematically reviews changes of knowledge sources concerning public sports policy based on core journals of China sports science. Author selected and analyzed all references of peer-reviewed articles published in core journals of China sports science (2001-2020) with reference number, reference resource, language distribution and discipline category. Results: over the past years, books and journals are the most top references. As far as references language is concerned, there were Chinese, English, German, and Japanese, and others language. it appeared the change that is from Chinese to foreign language in cited references, especially, English references have a majority of increasing in recent years. In addition, discipline distribution of references has changes that are obvious from single discipline to multiple disciplines, and the effect of other disciplines on public sports policy is significant.

1 Introduction

Overall, various methods have been used to identify public sports policy in China (Dongde Peng, 2021^[1]; Stephen, 2007^[2]). The china public sports policy researches have a significant change in resent years, in which, the core journals of china sport science is a typical representative that can reflect the academic progress conducted in China (Lixiao Xian, 2009^[3]; Dongde Peng, 2017^[4]). Meanwhile, it is also the most authoritative academic publications in china sport science. Just because of this, we make references of articles published in the journals of china sports science as the subject in order to discuss the changes of knowledge sources concerning public sports policy researches, and it can be used to provide historical context to public sports policy research in China.

2 Methods

In order to find the changes of knowledge resources concerning public sports policy in

* Corresponding author: liangxiao@swupl.edu.cn

China, the reference with per article in sports related core journals in china was analyzed from reference description, reference classification, reference language, reference discipline. We searched the most common database used in china sport science: CNKI. In the database, we search core journals of china sports science which were published before 2020, guarantee every article published in china sports core journals was collected.

3 Results

3.1 Reference description

Articles from the last over 20 years of publications for the core journals of china sport science are shown in table 1. We highlight the following observations concerning articles.

1. The citation rate was above 80% and the number of articles with quotations was increasing in the past 20 years.

2. It is an average of 11.07 citations per articles. Compared with international journals (28 citations per articles in earlier 2000s), it is obviously low.

3. The number of papers with quotations and citation sum were obviously increasing in the past 20 years, this trend can shed light on promotion of using literatures for china public sports policy researchers.

Table 1. Counts of references on articles published in china sports core journals.

Year	Articles with references	Percentage (%)	Average references per article
2001	79	69.91	6.79
2002	89	76.72	6.62
2003	97	80.83	6.48
2004	81	82.65	6.54
2005	73	81.11	7.02
2006	68	93.15	9.03
2007	96	85.71	7.75
2008	114	80.85	6.62
2009	118	83.69	6.01
2010	121	80.67	8.33
2011	126	91.30	8.21
2012	198	88.00	7.68
2013	174	95.60	10.55
2014	256	97.71	11.94
2015	239	97.15	17.00
2016	198	97.54	20.31
2017	168	99.41	23.69
2018	158	96.93	22.14
2019	153	98.71	22.91
2020	149	100	23.05

(Note: the percentage is the date for the articles with references/articles).

3.2 Citation classification

Upon completion of the article retrieval, each reference was classified by book, journal, news, conference report and thesis, and so on. The results are as follow:

1. In the past 20 years, there were references from journals (66.8%), books (23.6%), website information (2.33%), proceedings (1.95%), others (5.32%). 2. Among the references, web reports and thesis is increasing in past 20 years, especially, web reports were emerged in 2000 firstly, after, it was often taken as the reference.

3.3 Citation language

The next step in the analysis was to examine the citation languages, the following are interesting points regarding references in China sports core journals (2001-2020):

(1) Among the references, the following languages were represented: Chinese (52.5%), English (43.2%), German (0.4%), Japanese (0.3%), Russian (0.2%), French (0.01), Korean (0.02), and others (3.37%).

(2) The top citation language is Chinese, English, German and Japanese. And it can be found that English references have an significant increasing in the past 20 years.

3.4 Citation disciplines

Disciplines and distribution situation of references in sports science journals were represented (Table 2). The results are as follows:

(1) Sport discipline is the most knowledge resource, and medical, psychology, sociology, pedagogy, economics, culture and management were remarkably cited in references.

(2) Sports law, sports news and humanistic economy have some powerful contributions to knowledge resource, multiple discipline knowledge have become a characteristic for public sports policy research. Meanwhile, table 2 shows that the font 10 discipline is the mainly knowledge resources (95%).

Table 2. Number of citation with different discipline (2001-2020).

Discipline	2001-2010	2011-2020
Sports	18217	30938
Medical	3610	9082
Psychology	2020	6301
Sociology	1413	2924
Pedagogy	493	1317
Economic	493	1574
Management	471	1463
Statistics	235	982
Culture	305	975
Polics	192	959

4 Discussion

The first list was the citation description (including articals with references, percentage, average citations per article, and so on) in china sport core journals during the last 20 years. Knowing that citation number per article has a distinct increasing(average 6.79—23.05 pre article), of course, which was inconsistent with citation number of international journals(average 28 per article), possibly indicating a progressing in knowledge resource of researches conducted in china sport science, more and more researchers can begin pay attention to knowledge resources of research.

We observed a change from number of citation resources to descriptive articles published in china public sports policy. The result of this study would suggested that

journals are gradually becoming the mainly knowledge resources. Generally, journal can be taken as a proxy of advanced knowledge, from this point of views, sports science researches conducted in china have targeted newer information and knowledge.

Meanwhile, we see a representation of citation language (7 different languages in total). The most frequently cited reference language was Chinese, it is important to note, however, English papers were most frequently cited reference after 2001, indicating that English articles can have a positive impact on public sports policy research in china. Compared with others papers with different language, with two exceptions from Chinese and English, some papers with Japanese, Russian and German have similar citation rate and decreasing each decade, meanwhile, some papers with French and Korean is gradually appear in china public sports policy research over past 20 years. The finds can show that different language researches heavily influenced sport science in china, multiple knowledge resource has been formed and indicating a progression. Of course, papers with English are still the most cited reference at present, others paper with foreign language are not enough to cited reference, thus, the researchers need to promote the capacity of using knowledge conducted in different language in China.

As far as table 2 is concerned, the disciplines revealed interesting trends. Multiple discipline of knowledge resource have been formed in the latter decade, including the present. These findings suggest that knowledge resource of china public sports policy research is concentrating more discipline. Meanwhile, with this research, our goal was to identify the most influential or impactful discipline of the last 20 years. Except for sport discipline, medical, psychology, sociology, economic, pedagogy, history, management, statistics and philosophy are the most used knowledge resource. Especially, focusing on medical, statistic, psychology and history, indicating that they can become focuses of china public sport policy research.

5 Conclusion

We noted that public sports policy research demonstrated large changes in china, citation number per article appear to be getting more attention after 2001. By examining citation 8 sources: books, journals, newspapers, web reports, conferences, proceedings, theses, others (such as Spanish), it becomes apparent which citation over the past 20 years has heavily influence the field. Meanwhile, it is also clear that there has been a shift to single discipline or fewer disciplines from multiple disciplines for references.

This study was supported by Ministry of Education, Humanities and social science research projects (19YJC890055)

References

1. D. P. Dong. Does Sports Participation of Residents Break Class Inequality of Health from the Perspective of Life Course? : Longitudinal Analysis Based on CHNS Tracking Survey, *J Shanghai Univ. Sport*, **45**, 8 (2021).
2. J.W. Stephen, R.K. Lawrence. A profile of sports science research (1983-2003). *J Sci. Med. in Sport*, **10** (2007).
3. X.X. Li, J.R. Qiu, Q.H. L. Li, et al. Research on development of sport academic journal of new China, *China Sport Sci.*, **29**, 5 (2009).
4. D. P. Dong, L. Yuan, Y. Han. ArcGIS-based public sport service space in the urban center: Structure, problems and strategies-A case study of Changchun, *J Shanghai Univ. Sport*, **41**, 6 (2017).