

Analysis of the Current Situation of Special Physical Education in China from 2002 to 2022

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Abstract: Accompanied by economic development, special physical education has received more and more attention from special educators for its unique functions. In order to explore the current situation of special physical education research development, this paper uses bibliometric analysis to analyze 84 core literatures on special physical education included in China Knowledge Network (CNKI) from 2002 to 2022. The results show that the volume of research journals on special physical education in China shows a wave-like ebb and flow; the researchers are mainly distributed in teacher training colleges or comprehensive colleges and universities, forming several smaller cooperative groups; publications such as Chinese Journal of Special Education are the main issuing journals in this field; and the hotspots of the research are mainly centered on the hardware construction of special physical education, the faculty, and the curriculum and other related contents. In the future, the research on special physical education should be strengthened in conjunction with medicine, rehabilitation, psychology, education and other related disciplines.

1. Introduction

Special physical education, also known as adapted physical education, which originates from regular physical education but is clearly different from regular physical education, is physical education for all school-age students with physical and mental disabilities or illnesses and weaknesses^[1]. Since the 1990s, the Sports Law of the People's Republic of China, the Law of the People's Republic of China on the Protection of Persons with Disabilities, and the Outline of the National Fitness Plan have emphasized the need to guarantee the right of persons with disabilities to enjoy sports and fitness, and have called for the enrichment of methods of sports and fitness for persons with disabilities, the cultivation of sports backbones, and the improvement of sports and physical education for persons with disabilities. The Regulations on Education for Persons with Disabilities, as amended in 2017, emphasize safeguarding equal opportunities for the education of persons with disabilities, actively promoting integrated education, and strengthening support and safeguards for the education of persons with disabilities; and the Ministry of Education and seven other departments have issued the Second Phase of the Plan for the Enhancement of Special

Education (2017-2020), which puts forward the inevitable requirement of further enhancing the education level of persons with disabilities, and is an important task for promoting education equity and realizing education modernization. Society and the government pay great attention to special groups, and the service of special physical education for special groups is an integral part of the overall task of social development at this stage ^[2].

With the development of social economy, special physical education has received more and more attention from special education researchers for its unique socialization function ^[3]. In this study, we intend to analyze the research results of special physical education published in China from 2002 to 2022, and try to explore the research fields, research methods, research power, and research results of special physical education in China over the past 20 years by combing the literature of published core journals, aiming to provide a reference for the development of special physical education.

2. Objects and Methods of Study

In this study, we used the China Academic Journal Network Publishing Database (CNKI) as a platform for literature search, and the search conditions were set as follows: subject "special sports", "sports for the disabled", "adapted sports", "special school sports"; mode: "exact" match; time: 2002 to 2022; journal source categories: Chinese core journals and CSSCI journals were selected. "Special school sports"; mode: "exact" match; time: 2002 to 2022; journal source category: select Chinese core journals and CSSCI (Chinese Social Science Citation Index) as the data source of this paper. After searching and eliminating the literature that is not related to the content of the study and the information is not complete, a total of 84 journals in this field were obtained for the analysis of this paper.

With reference to the existing related literature, the number of published literature, published source journals, research objects, research methods, research teams and research contents are identified as the units of analysis. This paper mainly adopts word frequency analysis, combined with bibliometric analysis and content analysis, to quantitatively analyze the retrieved literature, and comprehensively analyze the development status of special physical education in China from 2002 to the present.

3. Results of the study

3.1 Overall analysis of the published literature

According to the retrieved journal literature (Figure 1), from the time distribution point of view, China's research on special physical education started late, Chinese core journals research is mainly concentrated in the beginning of 2005, the trend of growth shows a wave, 2010 and 2014 for the two high points of the research, respectively, there are 8 and 10 articles. Constrained by the development level of social economy and scientific research technology, the research on special physical education in China started late, and as the government provides basic guarantee for the development of special physical education in terms of human, financial and material needs, accordingly, the research literature related to special physical education is also growing gradually; however, due to the constraints of the research perspectives, research methodologies and tools, the literature on special physical education research has shown a certain downward trend.

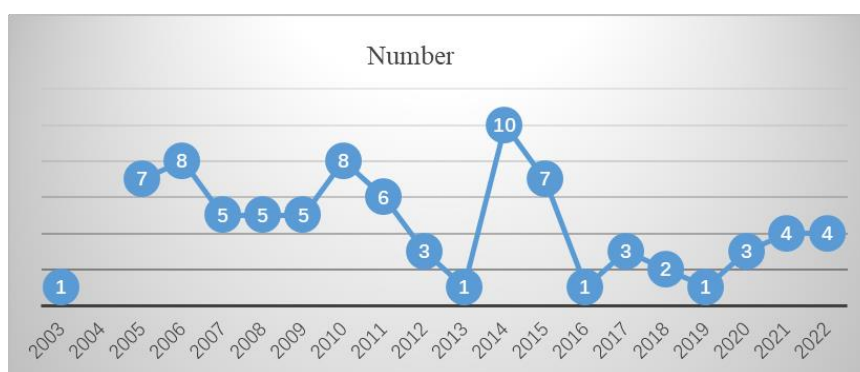


Figure 1: Annual publication volume of core journals in the field of special physical education in China

The 84 articles found in the search were mainly published in 31 core journals. The total number of journals with 2 or more articles was 12, accounting for 42.9% of the total number of journals, and the cumulative number of articles published on special physical education was 55 (55/72), which were the main source journals for the research results on special physical education. The highest number of articles was published in Chinese Journal of Special Education (9 articles), followed by Physical Culture Guide (8 articles), 3 journals published 4 articles, 1 journal published 3 articles, 3 journals published 2 articles, and 16 journals published only 1 article (16/72). The major journals were all from sports-related journals, except for Chinese Journal of Special Education. These journals can be regarded as the mainstream journals in this research field, which is related to the nature of special physical education and can also provide relevant frontiers and trends for future researchers.

3.2 Analysis of Research Objects

The number of documents was counted according to the provinces where the research subjects were located in the abstracts (each document was counted once), in order to reflect the geographical distribution of the sample of research on special physical education in China. In the abstracts, 17 provinces and regions were specified as the sampled provinces and regions, and 16 articles were published. The main distribution regions are: North China 1 article, Northeast China 1 article, South China 1 article, Central China 1 article, Northwest China 1 article, Southwest China 2 articles, East China 7 articles, and 2 unspecified provinces and regions. The data show that Hunan Province, Fujian Province, Zhejiang Province, Henan Province, Anhui Province and other provinces pay more attention to special physical education.

The occupational distribution of the research samples was counted (the research subjects were counted only once in each document), and the sources of the research samples were examined. There were 11 articles on teachers, 8 articles on students (students in special schools), 2 articles on principals or administrators, and 2 articles on others. The data show that the sample of special physical education research is mainly teachers and students in special schools, while the sample of other school research is small.

3.3 Analysis of research methods

Of the 84 articles in the research on special physical education, overall, mixed research is dominant, utilizing a combination of documentary research, survey research, and statistical analysis to explore the development of special physical education. Among them, there are 46 articles of quantitative research, accounting for 55%, and 38 articles of qualitative research, accounting for

45%. Most of the qualitative research documents are introductions, analyses, overviews, evaluations and subjective suggestions, etc. Among the 46 quantitative research documents, 29 documents use questionnaires as research tools, with self-administered questionnaires as the main ones.

3.4 Research Teams

The number of authors in the published literature was used to examine the research mode: of the 84 articles, 28 were sole authored, accounting for 33.3% of the total number of articles; 25 were co-authored by two persons, accounting for 29.8%; 20 were co-authored by three persons, accounting for 23.8%; and 11 were co-authored by four or more persons, accounting for 13.1%. There are 56 co-authored articles, accounting for 66.7% of the total number of articles, which reflects the trend of internal cooperative research in the field of special physical education; however, compared with independent research, the proportion of the results of collective cooperative research (4 or more people) is relatively low. In the literature analysis, the main research contents include the construction of special physical education in colleges and universities in China, the characteristics and problems of physical education in special schools, the construction of special physical education teacher teams, as well as the physical education rights of students with disabilities and educational reforms, and physical education teaching for special groups.

The institutional distribution of the research power was calculated based on the first author's signature unit. Of the 84 articles, 22 were from colleges of physical education, 16 were from teacher training colleges, and 34 were from other institutions, accounting for 52.8% of the total number of articles. The results show that the authors of special physical education research mainly come from institutions of higher education, among which the physical education colleges in comprehensive or teacher training colleges and professional physical education colleges dominate and are the main body of related academic research. These institutions are also relatively concentrated in provinces and regions where attention to special physical education is high and where physical education is developing rapidly. However, in-depth analysis reveals that the authors' disciplinary backgrounds are relatively homogeneous, mainly with a background in physical education and education, and with little or no involvement in disciplines such as special education, psychology, medicine and rehabilitation.

3.5 Analysis of the content of the study

By counting the research content in the titles, abstracts and keywords of 84 research papers, it is found that the keywords with higher frequency in special physical education are physical education (36), students with disabilities (26), sports for the disabled (21), physical education teachers (17), school sports (16), special education (23), special sports (14), classroom education (10), special physical education teachers (8), special schools (8), and curricula (8), etc. The above frequency of the words can also visualize the core hot issues in the field of special physical education research in China. The above word frequencies can also visualize the core hot issues in the research field of special physical education in China. Summarizing the relevant literature, it is found that the current research on special physical education mainly focuses on the hardware development of special physical education, the construction of teachers and the development of special physical education curriculum.

Status of hardware construction for special physical education. The basic material guarantee of physical education teaching is the site, equipment, facilities and funding, which directly affects the physical education teaching and effect, in the case of the lack of site, equipment, can not guarantee the quality of special physical education activities^[2]. Since 2005 there are 16 researchers, the school sports of special education schools in some provinces and cities have been investigated. The survey

found that the government has increased the investment in special physical education activities, which did significantly improve the quality of school physical education facilities, but currently there are still some schools, especially special education schools in remote areas, which still have backward sports venues and hardware facilities, a lack of sports venues and equipment, and imperfect physical education hardware facilities^[4, 5], which, to a certain extent, has hinders the development of physical education and the realization of teaching effect. In addition, insufficient investment in school sports and a single source of funding are also the reasons for the difficulties in carrying out special sports in these areas. Funding for special education schools is basically allocated by the state treasury, with fewer social donations or other sources of income. Literature data show that there is a large gap between the average annual education funding of special education schools in different regions due to their different sizes. This may be due to the fact that the funding mechanism for special education sports is not perfect, and there is still a need to effectively strengthen the investment and management of special education sports funding^[6].

The status of special physical education faculty. Teaching staff is an important force for special physical education. According to the survey, although there are slight differences in the structure, titles and qualifications of special physical education teachers in different provinces and cities in China, the overall situation is as follows: the special physical education teacher team is getting younger, and physical education teachers with intermediate titles have become the leading force in physical education teaching^[7]. It was found that there are fewer teachers with professional background in special physical education, and most of them graduated from general physical education majors. A limited number of colleges and universities offer special physical education majors, and their curricula pay more attention to the more theoretical basic courses, neglecting the practical courses that are integrated with special sports, and the courses of various obstacles to physical education are rarely offered in these colleges and universities at the present time^[8]. Therefore, in the in-service training of general physical education teachers, they should be encouraged to take courses about special sports in order to cultivate a more positive attitude towards integrated education among general physical education teachers^[9]. At the same time, some physical education teachers' practical ability is lacking, and their theoretical knowledge is not professional enough; there is also the problem of the small number of full-time physical education teachers, the high ratio of student-teachers, and the imbalance of the gender ratio of male and female physical education teachers; the physical education teachers' qualifications are on the low side, and there is a lack of highly educated and highly-titled physical education teachers, so that physical education teachers' degree of specialization is not high; and the number of teachers who have received relevant trainings is on the low side, and they are mainly based on short-term trainings, which influences the Physical education teachers' knowledge and mastery of special physical education laws^[10, 11]. There is still a lot of room for improvement in the construction of teachers of special physical education, and a lot of work needs to be done.

The current status of the special physical education curriculum. The Experimental Program of Compulsory Education Curriculum Setting for Special Education Schools states that students should "master the basic methods of physical exercise, have better personal hygiene habits, and improve their physical quality and health; initially master the basic methods of compensating for their own defects, and rehabilitate their defects to a certain extent; initially build up a sense of self-respect, self-confidence, self-improvement and self-reliance, and an awareness of their legitimate rights and interests; and form the basic ability to adapt to society". The results of the literature survey related to this study show that most special education schools attach importance to physical education classes and actively offer related courses. In terms of extracurricular physical education activities, research shows that 80% of special education schools can insist on morning and recess exercises; 70% of schools insist on extracurricular physical education activities twice a

week; and 65% of schools set up sports teams, with the majority of students being very willing to participate in trainings and competitions^[12]. However, there are still some special schools with outdated physical education syllabus and teaching materials, irrational curriculum structure system, single teaching content, and no targeted physical education curriculum standards and teaching materials^[8].

4. Conclusions

A bibliometric analysis of journals on the research results of special physical education in China from 2002 to 2022 shows that: the amount of journals on the research of special physical education in China shows a wave-like undulating trend; in terms of research methodology, the majority of the researchers adopt the documentary method and questionnaire survey method, and the researchers are mainly located in comprehensive or teacher training colleges and universities, and the research content is mostly centered on the aspects of the hardware construction, teachers' training, and curricula of special physical education, and the research on special physical education should be strengthened in conjunction with the related disciplines of medicine, rehabilitation, psychology, and pedagogy in the future.

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