

# Review on the Development of Special Education Since China's Reform and Opening Up

## -- Bibliometric Visual Analysis Based on CiteSpace

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### Abstract

**Reform and opening up is a major node in China. As an organic part of education, special education is of great significance to all aspects of China's development. In this paper, the software CiteSpace is used as the main analysis tool, and the visual analysis of CNKI database of China Hownet is used as the auxiliary analysis tool, so as to analyze and evaluate 133 Chinese-related documents about reform, opening up and special education on CNKI database of China Hownet in terms of research hotspots and trends, publishing institutions and authors. Through research, it is found that the development of special education in China is in a downturn since the reform and opening up, and new research hotspots can be found through the analysis of the previous peak development and the analysis of key documents.**

### Keywords

**Special education; Reform and opening up; CiteSpace.**

### 1. Introduction

Reform and opening up is a major node in the development of China's times. After the reform and opening up, China has made qualitative breakthroughs in many aspects such as economy, politics, diplomacy and education.

As an organic part of education, special education is not only the basic way to protect the right to education of special children and adolescents, but also the foundation stone project to promote the integration of special children and adolescents into society, and it is also an important window to reflect social civilization. The newly revised Regulations on Education for the Disabled was officially implemented on May 1, 2017, which emphasized that "education for the disabled should improve the quality of education and actively promote integrated education".

At present, the main contradiction of special education has been transformed into the contradiction between the growing demand for high-quality education for special children and adolescents and the shortage and uneven development of high-quality education resources. This paper will sort out the important progress of special education in China, and on the basis of clarifying the major challenges facing the development of special education at present, clarify the key areas for future development [1].

Through the software CiteSpace, this paper analyzes the research hotspots and trends, publishing organizations and authors of related documents on CNKI database of China Knowledge Network.

## 2. Research Method

In order to show the focus and key points of the development of special education after China's reform and opening up, the author uses the visual analysis of HowNet and CiteSpace to make a data analysis of the relevant literature on the development of special education from the beginning of reform and opening up to the present stage.

### 2.1. Sample selection

The literature source used in this study is CNKI China Knowledge Network, the full-text database of academic journals in China. In CNKI database, "theme = reform and opening-up" and "theme = special education" are used as search words for advanced search, and 133 Chinese periodical documents are retrieved for unlimited years. Because of the small number of documents, all of them are analyzed as sample data.

### 2.2. Introduction of methods

In this paper, CiteSpace 6.1R6 software is used to show the visual atlas of the research field of special education development after the reform and opening up. Based on the centrality, frequency and other indicators, the keywords, authors and research institutions of the selected documents are analyzed, so as to objectively reflect the research hotspots and development trends of special education development in a specific period after the reform and opening up in China [2]. In order to present a more comprehensive analysis result, the research also uses the bibliometrics visualization tool of CNKI database for auxiliary analysis.

## 3. Since the Reform and Opening Up, The Development of Special Education Research Results of Metrological Analysis

According to the visual analysis of CNKI database of China HowNet, the types of 133 effective literature resources selected are 78.2% from journals, 9.77% from doctoral dissertations and 6.77% from master dissertations. 60.15% of the subjects belong to adult education and special education, 19.55% to educational theory and management, and 8.27% to China politics and international politics. Among them, China Special Education and Modern Special Education are the two major journals with 133 documents, 27.07% of which are from China Special Education and 16.54% from Modern Special Education. In addition, the main fund source is the National Social Science Fund, accounting for 5.26%.

It can be seen that most of the research documents on the development of special education since China's reform and opening up belong to periodical papers in the field of adult education and special education.

### 3.1. Visual analysis of research hotspots

High-frequency keywords can fully reflect the author's core ideas, show the core content of the literature, and reflect the research hotspots in this field [3]. In this paper, the Refwork data of 133 effective documents are imported into CiteSpace tool software, and the co-occurrence knowledge map of special education development keywords since the reform and opening up is obtained. It contains all the keywords appearing in 133 effective documents.

The data information indicated by all the co-occurrence knowledge maps of keywords is extremely rich. The hot spots in the research field and their frequency, correlation degree, emergence time and other information can be revealed through the maps, and the hot spots of happiness education research can be analyzed from multiple perspectives with the help of the maps. For example, the importance of selected parameters can be determined by the centrality of keyword nodes. The larger the nodes, the higher the frequency of the corresponding keywords; The connection line between nodes reflects the degree of relevance between

keywords, and the thicker the connection line between two nodes means the higher the relevance of the corresponding keywords; The font size reflects the centrality of keywords, and the larger the font, the stronger the centrality of keywords [4].

After setting and optimizing the parameters of the atlas, from which seven key words of 133 effective documents can be obtained: special education, reform and opening up, education equity, compulsory education, disabled people, policy and development. At the same time, it can be concluded that the seven points of special education, reform and opening up, education equity, compulsory education, disabled people, policy and development are the research hotspots of special education development after reform and opening up.

### 3.2. Visual analysis of research trends

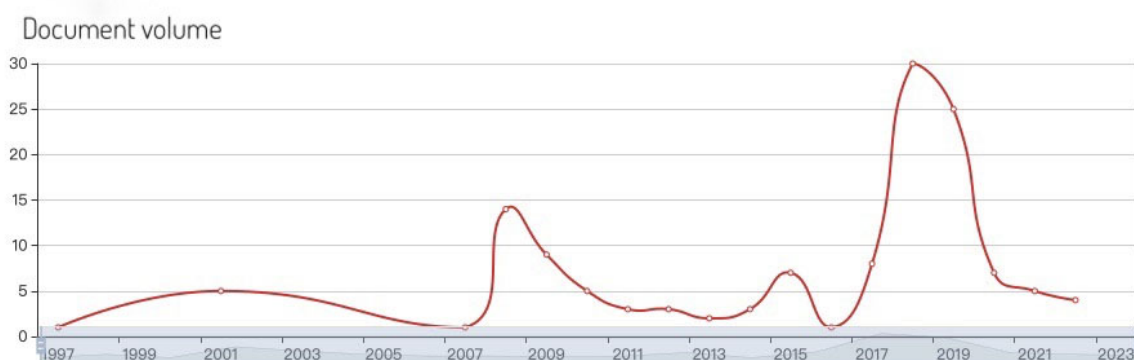
Through the function of Time Zone View, the development of special education after the reform and opening up has been studied, which clearly shows the hot keywords appearing at different times and the co-occurrence relationship between keywords, fully showing the evolution trend and hot spot change in this research field [5].

The research on the development of special education after the reform and development has reached four peaks of keyword emergence in China, namely, 2001, 2009 -2010, 2015 and 2018, and more keywords have emerged in these four periods.

The emergence of research hotspots in the development of special education after the reform and opening up is closely related to the current policies, national orientation and related event background. Major social events, leaders' speeches and policy promulgation related to the research field have brought the research field of special education development after the reform and opening up into the research field of scholars, aroused their research interest, and thus triggered a research upsurge in related fields in academic circles [6].

Through the analysis of the co-occurrence of seven keywords of special education development research after the reform and opening up, the two key words "special education" and "reform and opening up" appeared in 1997, and they are closely related to most of the following key words. The two key words "educational equity" and "development" appeared in 2008, the key word "disabled" appeared in 2010, the key word "policy" appeared in 2012 and the key word "compulsory education" appeared in 2017. The key word "compulsory education" is the latest and the latest hot spot among the seven key words in this field.

### 3.3. Analysis of document volume



**Figure 1.** Research on the Development of Special Education after Reform and Opening-up; Statistical Chart of Papers Published in Different Years

As can be seen from Figure 1, 2001, 2009 -2010, 2015 and 2018 are the four peak periods with a large number of articles, which are consistent with the peak periods obtained from the analysis of the time zones of keyword emergence. At present, the number of papers published

is in the downward trend stage, which shows that the research field of special education development is declining after the reform and opening up.

### **3.4. Analysis of issuing institutions**

About the main publishing organizations (2 or more) of these 133 valid documents, according to the statistics of CiteSpace software, Nanjing Normal University of Special Education ranks first with 3 papers in this field, followed by the institutions with 2 papers. They are Nanjing Normal University, Jilin University, Wuhan University of Technology, Fujian Normal University, Education College of Central China Normal University, Education College of Beijing Normal University, Northeast Normal University, Shenyang Normal University, Special Education Branch of China Education Association, Special Education Research Center of Nanjing Special Education Normal University, Education Department of Northeast Normal University, Education Department of Southwest University, East China Normal University, Education Science College of Shenyang Normal University, China Special Education Museum and Shaanxi Normal University.

### **3.5. Author analysis**

Among all the authors who have published articles in the research field of special education development after the reform and opening up, the authors who have published two or more articles were selected. Yang Kerui and Li Zhonghan ranked first with four articles, Ma Jianqiang ranked second with three articles, and Park Yongxin, Li La, Tang Shufen, Wang Ning, Liu Jitong and Qu Yihua all published two articles.

## **4. Conclusion and Prospect**

### **4.1. China's major achievements in the development of special education**

With the care and support of the CPC Central Committee and the State Council, the nature of special education in China has fundamentally changed and made remarkable achievements, initially forming a special education system from basic education to higher education and continuing education, from general education to vocational education, which is both integrated with general education and relatively independent, and has become an important part of China's education [7]. The 19th National Congress of the Communist Party of China put forward the idea of "running special education well". China's "special educators" need to "remember the original, absorb foreign countries and face the future", adhere to the Marxist view of special education and children, take the road of special education development with China characteristics through innovative practice, and contribute China's wisdom to the development of special education in the world [8]. Strengthening the inclusive development of special education [9] is the latest exposition of the nature, connotation and development goal of special education in China in the new era at the twentieth National Congress of the Communist Party of China, which is of milestone significance in the history of special education development. This exposition not only fully shows that the party and the government attach great importance to special children and their education, but also points out the direction for the modernization of special education in China in the new era [10].

### **4.2. Research status**

However, after the reform and opening up, the research on the development of special education is at a stage of less hot spots and lower heat, which requires scholars from all walks of life to actively explore new research hotspots to break ground.

### 4.3. Shortcomings of this paper and suggestions for field development

According to the previous analysis, the four time zones, 2001, 2009 -2010, 2015 and 2018, are the peak periods for the emergence of more keywords and the number of papers published, so it is the peak period for the development of special education after the reform and opening up. We can explore the causes of its peak development in combination with the background of the times at that time and draw lessons from it. Because of the limited space, this paper does not explore the reasons for the peak period.

At the same time, we can also analyze the influencing factors of the article, find out the key and influential documents among 133 effective documents, and lay the foundation for new research. As above, this paper does not analyze the influencing factors of literature due to limited space.

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