



Research Hotspots on Tourism Teaching in Secondary Vocational Schools in China Based on CiteSpace

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Abstract. With the rapid development of the tourism industry and the improvement of policy support for the vocational education industry, the tourism teaching and research work of secondary vocational schools plays an important role in adapting to the needs of the tourism market, consolidating the tourism professional foundation of secondary vocational schools, and improving the quality of tourism talent cultivation. This article uses CiteSpace to analyze the annual publication volume, authors, institutions, and research hotspots of tourism teaching-related literature in secondary vocational schools. Through exploratory analysis, the results indicate that the overall number of publications on tourism teaching research in secondary vocational schools is showing an increasing trend; The cooperation between authors and institutions is not close; The construction of tourism curriculum system, ideological and political courses, integration of industry and education, and school-enterprise cooperation in secondary vocational schools are hot topics in tourism teaching research. Secondary vocational tourism teaching is expected to make breakthroughs in the research content of talent training program reform and school-enterprise cooperation, the research method of combining qualitative research and quantitative research, and the use of databases to explore research topics .

Keywords: secondary vocational tourism · vocational education · CiteSpace · knowledge graph

1 Introduction

The promulgation of the “Vocational Education Law of the People’s Republic of China (2022)” shows that vocational education has the same important status as general education. With the deepening of vocational education reform in our country, more and more secondary vocational schools are teaching tourism education. The research hotspots focus on the curriculum setting of secondary vocational education, the training mode of tourism professionals, and the integration of tourism education and industry. This paper uses CiteSpace software, based on the 2002–2022 Chinese Social Science Citation Index CSSCI and the core periodical data of Peking University, and adopts bibliometrics, cluster analysis, and strategic coordinates visualization methods to analyze literature

keywords and citation relationships. Describe the current situation and research path of China's secondary vocational tourism education research in many aspects, clarify the development context, research hotspots, and trends in this research field, in order to improve the quality of teaching and students' quality, and then make positive progress in the employment and entrepreneurship of graduates.

2 Research Tools and Data Sources

2.1 Research Tools

This article uses CiteSpace 6.2.R2 software as the main analysis tool and uses CiteSpace 6.2.R2 to draw a visual knowledge map. As a path-finding network analysis tool in scientific literature, based on the theory of co-citation analysis, it is mostly used in exploring research hotspots and development trends in a certain scientific field, reflecting the accurate development trend of a certain discipline or knowledge domain in a certain period of time, highlighting the evolution of several related research fronts [1]. Combing and analyzing the research results of domestic secondary vocational tourism education teaching, hoping to sort out the research status, research hotspots, and development trends of domestic academic circles in detail in this area as a whole, so as to provide a reference for future in-depth research.

2.2 Data Sources

The article uses CSSCI and the core periodicals of Peking University as data sources and searches with keywords respectively. The keywords are set as “secondary vocational school”, “tourism secondary vocational education”, “curriculum system”, and the time span is 2002–2022, 1024 documents were retrieved, documents, interviews, reports, and other documents were eliminated, and articles not directly related to the research field were manually eliminated. After reorganization, a total of 888 documents were obtained, and the documents were exported in Refworks format, which is convenient for subsequent analysis. The data was converted and analyzed in CiteSpace software, and by adjusting the segmentation years and keyword thresholds, a reasonable visual map with a module value (Q value) > 0.3 and an average profile value (S value) > 0.5 was obtained [2]. Using the methods of co-citation analysis, cooperative network analysis, and topic co-occurrence network analysis of CiteSpace software, this paper analyzes the research hotspots and evolution path of tourism education in secondary vocational schools in China, and more objectively grasps the research status and development trend of this field.

3 Statistical Analysis of Literature on Tourism Education in Secondary Vocational Schools

3.1 Time Distribution of Publications

The number of published documents can reflect the research situation and enthusiasm of this topic in related fields [3], and according to the number of published papers per year, a trend chart of annually published papers is made (see Fig. 1). According to the figure, it

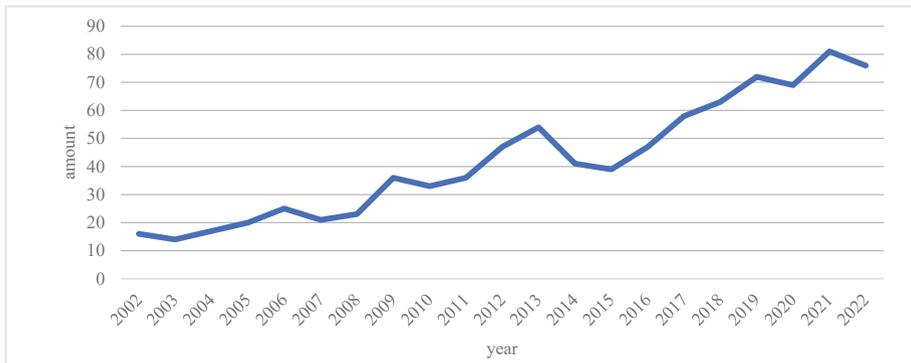


Fig. 1. Time distribution of tourism education research literature in secondary vocational schools from 2002 to 2020

can be seen that the number of publications on this topic is increasing with each passing year, 2002–2008 is the initial stage of literature publication, and the number of papers published is relatively small, accounting for about 15.3% of the summed magnitude of papers published, and the average number of papers published per year is less than 20; the overall number of papers published in 2008–2013 showed a rapid growth rate. In the growth stage, the number of published papers increased from an average of 23 in 2008 to 54 in 2013; the number of published papers in this field fluctuated greatly from 2013 to 2017 and fell back, but the number still rose, accounting for about 47.8% of the total number of published papers; from 2017 to 2020, the number of published papers in this field showed a steady increase and an overall growth trend, and reached its peak in 2021, with 81 published papers. The “Vocational Education Law of the People’s Republic of China” promulgated on May 1, 2022, and the good recovery of the tourism industry under the normalization of epidemic prevention and control, have promoted scholars’ research on the direction of tourism in the field of vocational education to a certain extent [4].

3.2 Analysis of the Total Citations of the Issuing Institutions

An analysis of the co-occurrence of publishing institutions formed by setting the Institute threshold to 2 shows that institutions with more than 2 publications in the field of teaching ability research for vocational school teachers [5]. According to Table 1, research institutions in this field are relatively scattered and concentrated in Liaoning, Beijing, Shenyang, Hunan, Jiangxi, and Guangxi regions, with fewer in the Midwest. This also indicates that vocational education in China has made significant progress in the past, but there is still an imbalance, there is a big gap between the central and western regions and the eastern region in terms of scale and level.

Table 1. Institution's publication status

serial number	mechanism	quantity	time
1	Liaoning Normal University	26	2004
2	Beijing Union University	19	2003
3	Shenyang Normal University	14	2011
4	Hunan Normal University	14	2014
5	Jiangxi Science and Technology Normal University	13	2019
6	Guilin Institute of Tourism	13	2003
7	Guangdong Technical Normal University	13	2019
8	Guangxi Normal University	10	2013
9	Shandong Normal University	9	2008
10	Nanjing Normal University	9	2011

4 Analysis of Hot Spots in Tourism Teaching Research in Secondary Vocational Schools

Relying on the knowledge cluster analysis function of CiteSpace and using the LLR algorithm, cluster analysis is carried out on the keywords of secondary vocational teachers' teaching ability research from 2002 to 2022. In the keyword clustering graph, the larger the number of nodes that appear, the more times the keyword appears, indicating the higher importance of this field [6, 7]. In Fig. 2, the node size represents the co-occurrence frequency of keywords, and the connection line represents the co-occurrence relationship of keywords. According to relevant theories, the frequency and center rate keywords can highlight the research focus in this kind of professional field of secondary vocational tourism education. In Fig. 2, nodes such as "tourism major", "secondary vocational school", "tourism education", "secondary vocational education", "professional setting", and "tourism colleges" have a relatively high frequency of co-occurrence, indicating that they are influenced by the response to researchers' extensive attention, and they play a pivotal role in the structural system. The research on vocational tourism education plays an important leading role.

4.1 Secondary Vocational Tourism Teaching

With the development and changes of the times, tourism teaching in secondary vocational schools has the problem that the teaching content is outdated and it is difficult to keep up with the development trend of the industry. Therefore, the optimization of "professional settings" and "instructional design" is particularly important. One of the training goals of the tourism major is to cultivate talents who can use theory and practice flexibly so that the professional setting can adapt to the market and social development [8]. In the process of teaching design, introducing actual situations into classroom teaching will help students fully understand and apply what they have learned, and lay a solid

foundation for future employment. For example, take the simulated tour guide course as a sample so that students can explain specific situations during the class and exercise students' ability of practical operation and on-the-spot response. It is necessary to fully utilize the advantages of local tourism resources, uses nearby travel agencies or nearby scenic spots to create real-scene classrooms, consolidate knowledge and exercise ability in a real environment, and make students understand the overall situation of the scenic spot and lead the group through the practice of the whole process of leading the group. The process is clear in the chest, and classroom learning is applied to the actual training teaching process to stimulate students' enthusiasm for learning and improve their own abilities.

4.2 Construction of Tourism Curriculum System in Secondary Vocational Schools

The training goal of the tourism major in these schools is to cultivate junior and intermediate service personnel and grassroots personnel who have good ideological and moral qualities, comprehensive qualities, strong comprehensive business abilities, and a foundation for career development working in hotels, scenic spots, travel agencies, and other frontline areas [9]. The construction of the tourism professional curriculum system in secondary vocational schools must be oriented by occupational needs, based on comprehensive occupational abilities, and highlight occupational characteristics.

This aspect of research mainly focuses on keywords such as "countermeasures", "school-enterprise cooperation", "professional settings", and "tourism English". The construction of a secondary vocational tourism curriculum system requires secondary vocational tourism schools to keep pace with the development of the times and constantly improve their own professional curriculum system, it can provide better career development guarantees for secondary vocational students.

To build a modular curriculum system, the school should start from the following aspects: first, make a good professional positioning on the basis of market research; then, analyze the field of study on the basis of the above research [10]. According to ability requirements, the field of study should be reasonably divided into several large modules such as basics, professional foundations, majors, and elective courses. For example, under the professional module, the vocational ability requirements of the teaching module can be corresponding to the specific work tasks, and then be divided into more specific modules according to the actual work process [11]. In addition to cultivating students' basic quality of language and mathematics, and other basic cultural knowledge subjects, as well as an introduction to tourism, simulated tour guides, tourism psychology, and laws and regulations, tourism. Besides, the school can also optimize the content of the teaching materials according to the actual situation, including eliminating some outdated knowledge and adding some new knowledge according to the development situation of the tourism industry. If necessary, the school can also organize teachers to compile more practical school-based teaching materials. It is also an effective way to optimize course content [12].

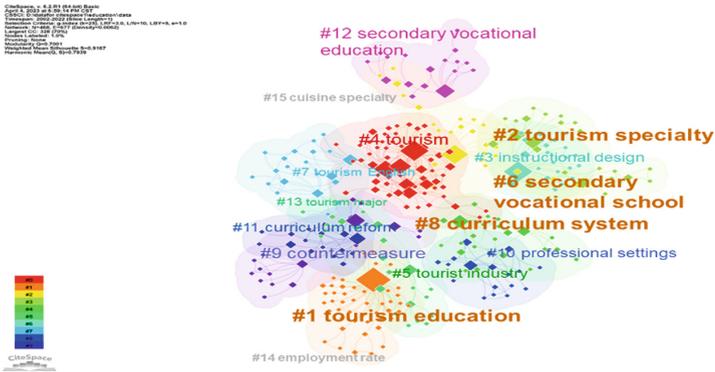


Fig. 2. Keyword co-occurrence clustering network

4.3 Secondary Vocational Tourism Education in the New Era

The 19th National Congress of the CPC was held, which shows that socialism with Chinese characteristics has entered a new era. Under the new historical stage, keywords such as “curriculum ideological and politics”, “collaborative education”, and “integration of production and education” have emerged in this research direction. Meanwhile, in 2021, the “Notice of the State Council on Issuing the 14th Five Year Plan for Tourism Development” proposed to promote the high-quality development of tourism vocational education and further improve the mechanism of continuing education. It can promote the construction and sharing of digital course resources. Improve the training mechanism for practitioners suitable for the development characteristics and needs of red tourism, rural tourism, and other industries, increase the cultivation of tourism leading talents, urgently needed talents, new technologies, and new formats, and create a high-quality team that adapts to the development of tourism [13]. Such schools should take certain measures, such as formulating characteristic training programs based on the needs of the local tourism industry; innovating teaching methods and means to lift the capacity of the standard of teaching; strengthening the integration of production and education to improve vocational skills; advancing the level of teachers and emphasizing the effect of practical training.

5 Analysis of the Development Path of Tourism Teaching in Secondary Vocational Schools

According to the image reading rules of CiteSpace software, each tree ring represents a keyword node. The larger the node, the higher the frequency of the keyword; the closer the node is to the middle, the higher the centrality. The impact of this word in the research field is Extensive [14]. Figure 3 reflects the dynamic changes of keywords. It can be seen that the research keyword nodes such as “curriculum reform”, “curriculum system”, “tourism major”, “tourism education”, “secondary vocational education” and “teaching design” are relatively large, and they are closely related to other keywords. The dense connection shows that the domestic research topics on tourism education in secondary vocational schools have a relatively high continuity so far.

With the progress of the reform, the “Decision of the State Council on Vigorously Promoting the Reform and Development of Vocational Education” in 2002 and the “Decision of the State Council on Vigorously Developing Vocational Education” in 2005 pointed out the path of the development of secondary vocational education. Keywords such as “secondary vocational students”, “teaching design”, “curriculum system” and “teaching model”. The period from 2005 to 2010 is the rapid development stage of tourism education research in secondary vocational schools, and the research topics are diversified. Some scholars start from the micro level and focus on keywords such as “curriculum reform”, “teaching model”, “school-enterprise cooperation” and “professional settings”, and study how to deeply integrate the teaching mode with tourism professional education. From 2010 to 2015, the Central Committee of the Communist Party of China and the State Council issued the “National Medium and Long-term Education Reform and Development Plan (2010–2020)” 2010, which clearly pointed out that vocational education should focus on improving quality education about such schools. It is also extremely important to improve the subsidy policies for students from financially disadvantaged families. In 2014, the “Decision of the State Council on Accelerating the Development of Modern Vocational Education” was released, pointing out that it is necessary to consolidate and improve the development level of secondary vocational education. From 2015 to 2020, the “2020 China Vocational Education Quality Annual Report” was released to the public. The report presents the quality of my country’s vocational education development during the 13th Five-Year Plan period, especially since 2019, in terms of system construction, school conditions, education and teaching, student development, and service contributions. During this period, under this background, some scholars carried out relevant research on how schools can actively give new impetus to vocational education reform, and then construct a new model of industry education integration, which conforms to the trend of secondary vocational education development in the new era.

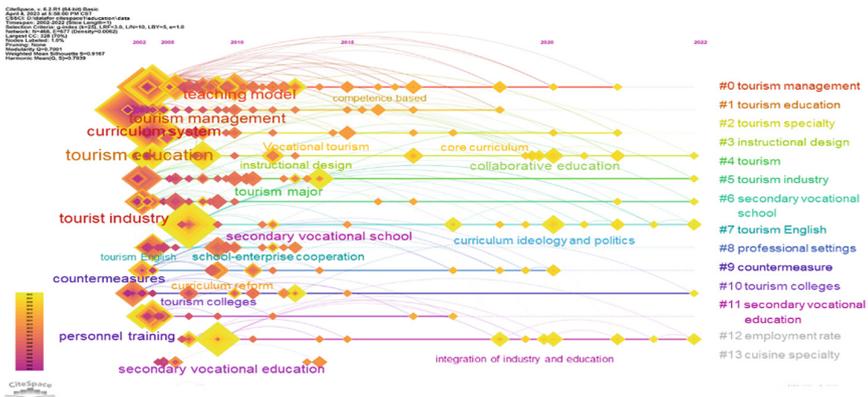


Fig. 3. Keywords co-occurrence time zone map

6 Conclusions and Prospects

Based on CiteSpace software, the quantitative and qualitative analysis of the papers related to secondary vocational tourism education in CSSCI and the core journals of Peking University from 2002 to 2022 was carried out. Through the analysis of the keyword co-occurrence clustering network, it can be seen that the frequency of co-occurrence of nodes is relatively high. Combined with the co-occurrence time zone map of keywords, it can be found that the research in this field mainly focuses on the construction and operation mechanism of the secondary vocational tourism education system. The world is currently in the post-epidemic era, economic growth is sluggish, and the tourism industry is recovering. In recent years, with the changes in China's population and economic structure, the traditional development model alone has been unable to better solve new problems in the tourism industry [15]. Therefore, it is particularly important to actively explore new education models and cultivate excellent innovative and entrepreneurial talents for the tourism industry through the reform of tourism teaching in secondary vocational schools.

Tourism education in these schools should also follow the guidance of national policies, integrate multiple advantageous resources, keep pace with the times, and expand research from multiple angles. In terms of research content, it mainly focuses on the reform of talent training programs, school-enterprise cooperation, etc., and there is a lack of in-depth research on reforms in teaching methods according to different professional characteristics. From the perspective of colleges and universities, there is a lack of investigation and research on how to construct an effective secondary vocational tourism education system. From the perspective of research methods, qualitative research and quantitative research can be combined, so that the promotion and implementation effect of secondary vocational tourism education can be more objectively and comprehensively evaluated, and the development trend of secondary vocational tourism education can be understood. In future research, the WOS database or more journal papers can be selected as the research subject to use more data to further explore the research topic. Additionally, this paper expects to conduct a more in-depth discussion on the research topic, such as the analysis of teaching evaluation methods based on knowledge graphs. It is convenient to carry out personalized ability evaluation on students' learning process, improve students' practical application ability, meet industry requirements, and promote students' employment and further education [16].

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