

A Review of The Research of Vocational Education Textbooks

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Abstract: To achieve high quality development of vocational education teaching materials in China. Through CiteSpace software, 600 documents of my 2002-2022 vocational education teaching materials research were analysed by visual mapping. On the basis of analysing the number of publications, authors, institutional cooperation publications and keywords, the study concludes that the construction of new form teaching materials, publication of teaching materials, development of teaching materials and reform of teaching materials are the hotspots of vocational education teaching materials research, and that in the future, loose-leaf teaching materials, digital teaching materials, integration of industry and education, curriculum ideology and high-quality development will become the trend of vocational education teaching materials research. Under the high-quality development of vocational education teaching materials, vocational teaching materials should expand the research direction and enrich the research themes; increase the research methods and improve the scientificity of the research; highlight the characteristics of the teaching materials and clarify the research paths; and apply the multidisciplinary perspectives to improve the level of theoretical research.

Keywords: Vocational education materials; CiteSpace; Feature development.

1. Introduction

Vocational education teaching materials, as an important part of the development of vocational education and as a carrier for students' learning and teachers' teaching, play a crucial role in the development of vocational education. In recent years, the state has also issued relevant policies to strengthen the construction of vocational education teaching materials. In 2019, in order to carry out the spirit of the 19th National Congress and implement the Central Committee of the Communist Party of China on the construction of teaching materials, and to improve the relevant requirements of the "Implementation Plan for the Reform of National Vocational Education", the construction of national planning teaching materials for vocational education in the 13th Five-Year Plan has been organised, and it is advocated that new loose-leaf, workbook-style teaching materials be used. In 2020, the Ministry of Education issued the Action Plan for Improving the Quality and Excellence of Vocational Education (2020-2023), which stipulated that a hierarchical planning system should be implemented for teaching materials, and that classified audits and random inspections of teaching materials should be carried out; and in 2021, in order to carry out the spirit of the National Conference on Vocational Education and the Conference on Teaching Materials, the Ministry of Education issued the "Fourteenth Five-Year Plan" and the "Fourteenth Five-Year Plan". Implementation Programme for the Construction of Teaching Materials for the 14th Five-Year Plan of Vocational Education", which requires that the construction of teaching materials should follow the laws of education and vocational teaching; in 2023, the State Council issued the "Opinions on Deepening the Reform of the Construction of the Modern Vocational Education System", which proposes to carry out the construction of high-quality teaching materials, with the focus of high-quality teaching materials being oriented to the strategic and emerging industries to lead the vocational education to a better development.

The formulation of relevant policies at a high level has a guiding effect on the development of vocational education, which not only drives the construction level of vocational education teaching materials, but also drives the research of vocational education teaching materials in the academic world. At present, there are many researches on vocational education teaching materials, and most scholars pay attention to the form construction of teaching materials, for example, scholars Shi Zhilin put forward the prospect of vocational education loose-leaf and workbook teaching materials[1] ; Chen Huazheng put forward the research on the development of vocational teaching materials[2] . Although the research on vocational education teaching materials in China has achieved remarkable results, there is a lack of literature research on the review and future prospect of vocational education teaching materials. Therefore, based on the visual research perspective, this paper systematically collates all aspects of vocational education teaching materials and lays the foundation for future research on vocational teaching materials.

2. Data Sources and Research Methodology

2.1. Data sources

In order to grasp the research topic more scientifically and accurately, we searched the literature on China Knowledge Network (CNKI) and organised it. The steps are as follows: (1) click on advanced search on China Knowledge Network (CNKI); (2) search "Title" for teaching materials, the theme of vocational education, click on "Search" as of the end of December 2022, a total of 3,345 documents; (3) manually exclude non-academic articles such as advertisements, reports, books, etc. on the basis of 3,345 documents. (3) on the basis of 3345 pieces of literature manually exclude advertisements, reports, books and other non-academic articles, and finally get 2910 pieces of valid data, of which 2681 pieces of journals, master's and doctoral theses 229, (4) in the 2681 journals for

The sample involves a total of 459 authors, and on CiteSpace visualisation software, there are 3 authors, accounting for 0.6% of the total capacity, who set the frequency of issuing articles to 4 and more times, and 13 authors, accounting for 2.8% of the total capacity, who set the frequency of issuing articles to 3 and more times. In Table 1 Highly prolific authors of vocational education teaching

materials research articles in 2002-2022, it can be seen that the author Xu Guoqing in 2015-2022, the number of articles up to 10, is the highest number of articles, in addition to other authors about the vocational education teaching materials research literature articles in roughly the same number of the earliest research time is 2004.

Table 1. Highly productive authors of vocational education textbook research publications (top 10 publications)

serial number	volume of publications	Starting year	author
1	10	2015	Xu Guoqing
2	4	2021	Xu Ye
3	4	2008	Cai Leap
4	3	2022	Zhao Wenping (1920-1989), communist politician, colleague of Mao Zedong
5	3	2018	Lan Xiaoyun (1905-1992), Mao Zedong's second wife
6	3	2004	Xidongmei
7	3	2020	Zeng Tianshan (1839-1918), one of the indigenous peoples of Taiwan
8	3	2016	Gong Wen (1969-), Chinese-American writer, author of numerous novels about the Beijing Olympics
9	3	2014	Wang Liliang (1944-), fourth governor of Hainan
10	3	2016	Zhou Zhigang (1935-1976), Chinese communist leader, a founding member of the Chinese communist party

3.3. Analyses of cooperation with issuing bodies

The analysis of the situation of issuing institutions can understand the research power and layout of the field of vocational education teaching materials, and through the issuing institutions and the number of articles, we can know whether there is any cooperation between institutions and the degree of cooperation. In the CiteSpace software node, select "Institution", get as in Figure 3, the knowledge map of the network of issuing institutions, in the study, the number of

institutions that have issued more than 3 times, a total of 370 institutions, a total of 144 inter-institutional lines, the thickness of the line represents the degree of cooperation and cooperation between institutions, the larger the node of the institution, the more the number of institutions that have issued articles, the greater the number of institutions that have issued articles. The larger the node of the institution, the more the number of institutions sending articles is represented, and vice versa.

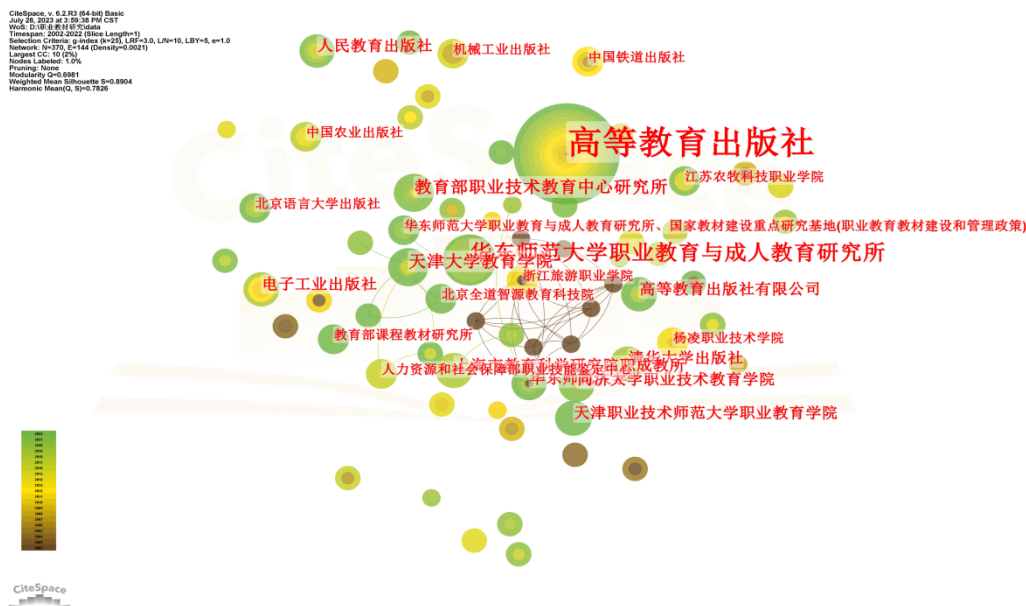


Figure 3. Collaboration of institutions that issue textbooks for vocational education research

In terms of the number of articles issued, in Table 2, Higher Education Press as the largest number of articles issued (38), followed by the Institute of Vocational and Adult Education of East China Normal University (9), such as the Electronic Industry Press, Tianjin University College of Education, and the Institute of Vocational and Adult Education of Shanghai Municipal Research Institute of Educational Sciences, the

number of articles issued are roughly the same. The data show that the research institutions in the field of vocational education textbook research are relatively concentrated, reflecting the fact that the Higher Education Press and the Institute of Vocational and Adult Education of the East China Normal University are the main force in the issuance of vocational education textbooks.

Table 2. Number of organisations that issue papers on vocational education textbook research

serial number	volume of publications	mechanism	Starting year
1	38	Higher Education Press	2002
2	9	Institute of Vocational and Adult Education, East China Normal Teachers' University	2018
3	5	Research Centre for Vocational and Technical Education, Ministry of Education	2011
4	5	College of Education, Tianjin University	2016
5	4	Electronic Industry Publishing House	2011
6	4	Institute of Vocational and Adult Education, Shanghai Academy of Educational Sciences	2018
7	4	Higher Education Press Ltd.	2016
8	4	College of Vocational and Technical Education, Tongji University	2018
9	4	East China Normal University (ECNU)	2022
10	4	Vocational Education College of Tianjin Vocational and Technical Normal University	2010

From the point of view of the cooperation of issuing institutions, there is a mode of cooperation between universities and publishers, but the number of appearances is not large, as seen in the figure, the main force of the issue is centralised in the school and the publisher, the school and the publisher are relatively independent of the issue of the article, and the mode of cooperation is still relatively rare.

In terms of the geographical distribution of the articles, most of the research institutions are located in Shanghai and Tianjin. Due to their economic strength, industrial development and cultural traditions, Shanghai and Tianjin have high-quality educational resources, many universities and a large number of industrial clusters, and the issuing institutions are also more concentrated.

4. Research Hotspots

4.1. Keyword co-occurrence

Keywords are highly condensed and summarised in the literature, and at the same time, they are the most frequently occurring words in the literature. Figure 4, the study of vocational education textbook keyword co-occurrence, a total of 468 nodes were obtained, the larger the node, indicating that the keywords appear more frequently; a total of 874 lines, the more lines between the keywords, on behalf of the closer the connection; the thickness of the lines between the keywords, indicating the closeness of the keyword connection, in the figure, the keyword density of 0.008, the value of the Q cluster module of the study in this paper = 0.6981 > 0.3, which represents that the clustering structure is significant and the results have credibility.

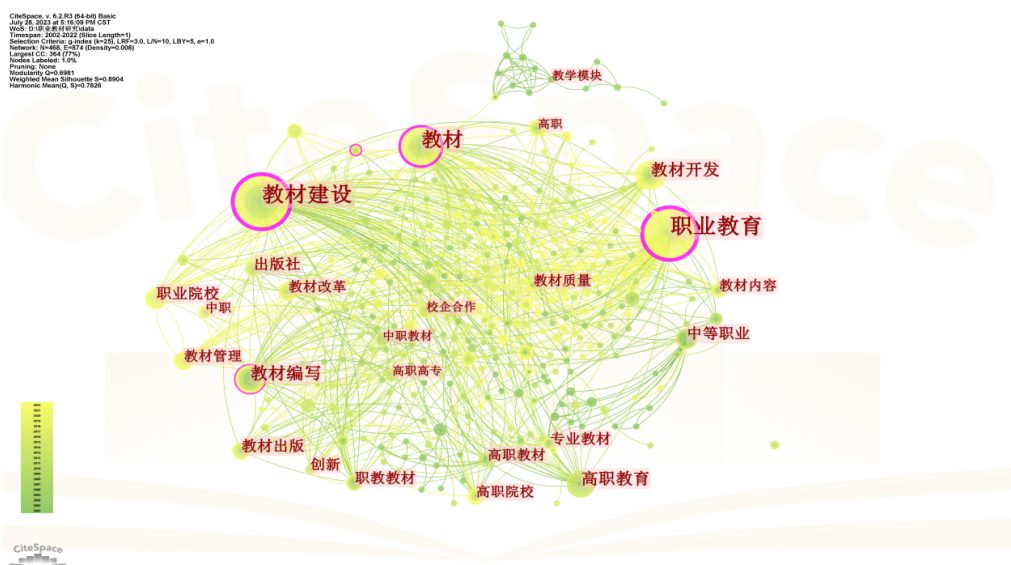


Figure 4. Co-occurrence analysis of keywords in vocational education textbook research

In order to ensure the scientificity of vocational education teaching materials research, by analysing the hotspots of keywords, the keywords that have nothing to do with this research are manually eliminated, such as secondary vocational, higher vocational education, higher vocational colleges and universities, higher vocational teaching materials, which are regarded as invalid words, and based on the elimination of invalid words, the keywords are consolidated, such as "secondary teaching materials" and "higher teaching materials" are merged into "teaching materials construction". "As shown in Table 3, it can be learnt that between 2002 and 2022, the research on vocational

education teaching materials mainly focuses on the construction of teaching materials, the development of teaching materials, the writing of teaching materials, the publication of teaching materials, etc. The frequency of the remaining keywords is lower than that of other keywords. The frequency of other keywords is relatively low, which means that except for teaching material construction, teaching material development, teaching material writing and teaching material publication, other aspects, such as school-enterprise co-operation and new forms of teaching materials, are not sufficiently researched.

Table 3. High-frequency keywords for research on vocational education materials (top 10)

serial number	frequency	byword	serial number	frequency	byword
1	93	Teaching materials development	6	11	Teaching materials management
2	24	Development of teaching materials	7	6	School-Enterprise Co-operation
3	23	Teaching materials development	8	6	new form
4	26	Publication of teaching materials	9	6	Textbook design
5	13	Textbook reform	10	6	Content of the textbook

4.2. Key word emergence

By studying the frequency and centrality of keywords, it is possible to predict the hotspots and future trends of vocational education textbook research. Keyword emergence refers to the change of the research topic within a period of time. Through CiteSpace visualisation software, the sample was processed to obtain Figure 5, which can predict the future trend of vocational education textbook research.

Through Figure 5, it can be seen that the keywords with a keyword strength of 2 or more and related to the research topic are higher vocational teaching materials, teaching materials management, building materials preparation, intermediate teaching materials, teaching materials construction, teaching materials publication, series of teaching materials, new form of teaching materials, loose-leaf teaching materials, teaching materials evaluation, etc. As can

be seen from the figure, from 2002 to 2011, vocational education teaching materials research was mainly focused on higher vocational teaching materials, teaching materials preparation, and teaching materials construction issues, and this stage focuses on the basic construction of vocational education teaching materials; 2009-2016, vocational education teaching materials research focuses on teaching reform, teaching materials publication, school-enterprise co-operation, which focuses on the deep-level development of vocational education teaching materials; 2016-2022, vocational education teaching materials focuses on the new form of teaching materials, teaching materials management, loose-leaf teaching materials, and teaching materials evaluation, which breaks through the tradition and innovates the teaching materials in the form of pursuing high quality of teaching materials. forms, and pursuing high quality of teaching materials.

Top 23 Keywords with the Strongest Citation Bursts

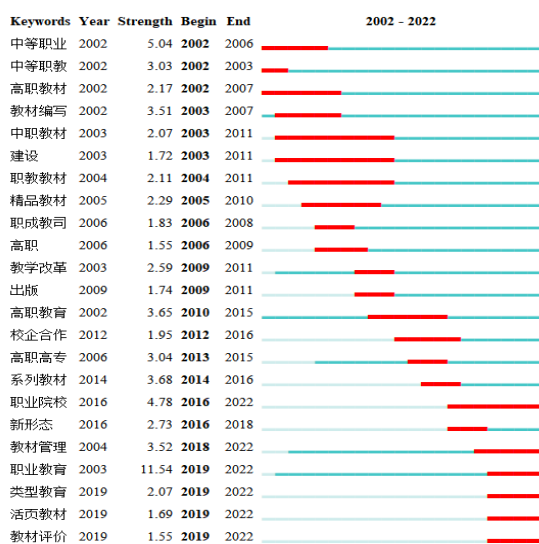


Figure 5. Study of keyword emergence in vocational education textbooks

4.3. Keyword clustering

Keyword clustering is to analyse the "similarity" of high-frequency words in the literature, and the size of keyword clustering is directly proportional to the number of keywords, the more the number, the larger the size, and vice versa. From the side also reflects that the clustering is the hot spot in this research field. By using CiteSpace software to screen the data, 10 clustering labels are obtained, and in Figure 6, there are 10 clustering labels for #0 teaching materials, #1 teaching materials construction, #2 vocational education, #3 teaching

materials content, #4 teaching materials publication, #5 innovation, #6 higher vocational education, #7 teaching materials development, #8 secondary vocational, and #9 teaching materials reform, and this keyword clustering panel covers the current vocational education teaching materials research hotspots, and the cluster mapping clustering module value $Q=0.6981>0.3$, which indicates that the clustering structure is effective, and the average profile value $S=0.8904>0.7$, which indicates that the clustering has credibility.

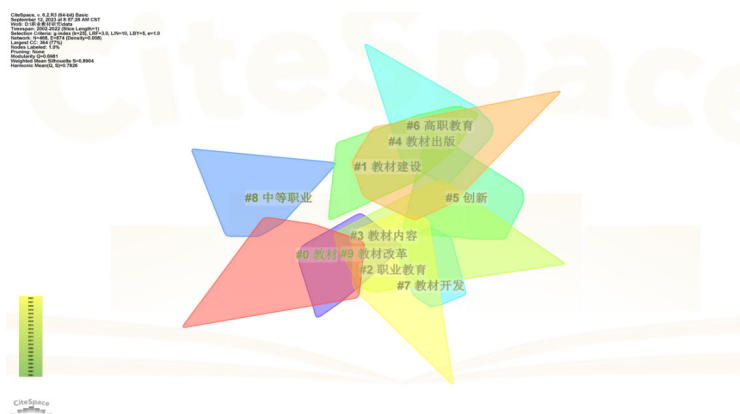


Figure 6. Keyword clustering mapping for vocational education textbooks

Using Clusters in CiteSpace software, we get Table 4, vocational education teaching materials keyword statistics table, the larger the value of the keyword, which means that the keyword appears more frequently, the clustering labels in the table have repeated cross, vocational education, higher vocational education, secondary vocational education. It shows that in the study of vocational education teaching materials, involving middle and higher vocational education, compared with secondary vocational education, higher vocational education has a larger value, reflecting that the study of higher vocational education teaching materials is

more than the study of secondary vocational education teaching materials. The clustering words in the table involve many aspects of teaching material research, such as teaching material construction, teaching material evaluation, teaching material writing, teaching material content, teaching material innovation, curriculum ideology, teaching material reform, digital teaching material, combined with the clustering mapping and the statistical analysis of keywords, it is summarised that the hot spots of research on teaching materials in vocational education include the following aspects.

Table 4. Keyword statistics for vocational education materials

Cluster number	numerical value	contour value	Keywords (LLR)
0	52	0.779	Textbooks (60.31,1.0E-4);Construction (13.8,0.001);Higher Education (13.8, 0.001);Featured Textbooks (9.18,0.005);Exploration (9.18,0.005)
1	47	0.857	Textbook development (58.89,1.0E-4); Teaching reform (7.45,0.01); Electronic teaching materials (7.45,0.01); Vocational education development (7.45,0.01); Mechanical drawing (7.45,0.01)
2	39	0.941	Vocational Education (32.13,1.0E-4); Teaching Material Management (21.9,1.0E-4); Teaching Material Development (11.02,0.001); Teaching Material Evaluation (10.89,0.001); Book Certification (7.24,0.01)
3	38	0.856	Textbook content (24.61,1.0E-4); Textbook development (24.61,1.0E-4); Textbook quality (14.8,0.001); Vocational colleges and universities (10.36,0.005); Freshmen in secondary schools (4.86,0.05)
4	32	0.914	Textbook Publishing (25.8,1.0E-4); Development (20.57,1.0E-4); Automotive Electricity, Electronics and Technology (10.22,0.005); Secondary School Textbooks (10.22,0.005); Vocational Training (10.22,0.005)
5	29	0.912	Innovation (22.88,1.0E-4); Vocational education materials (17.99,1.0E-4); Vocational education in China (11.35,0.001); Content (11.35,0.001); Positioning (11.35, 0.001)
6	28	0.913	Higher Education (31.82,1.0E-4); Higher Education Materials (21.48,1.0E-4); Core Curriculum (10.59, 0.005); Vocational Competencies (10.59,0.005); Project-based Materials (10.59,0.005)
7	25	0.877	Textbook development (20.49,1.0E-4); higher education institutions (17.57,1.0E-4); view of textbooks (10.99,0.001); curriculum ideology (10.99,0.001); practical training evaluation (5.47,0.05)
8	21	0.96	Secondary vocational (26.36,1.0E-4); Professional textbooks (21.01,1.0E-4); Content profiles (15.71,1.0E-4); National planning textbooks (11.89,0.001); Clothing design (910.44,0.005)
9	18	0.891	Textbook Reform (27.14,1.0E-4); Digital Textbooks (12.79,0.001); Secondary (12.79,0.001); Analytical Chemistry (6.36,0.05); Intelligence (6.36,0.05)

1. Research on the construction of new forms of teaching materials

In 2019, in the teaching resources construction of the National Vocational Education Reform Implementation Programme, the development of new form of loose-leaf and workbook teaching materials was explicitly proposed; since then, the construction of new forms of vocational education teaching materials has become a research hotspot. Wang Jiaojiao and Du Huiji proposed research on the development of new forms of vocational education teaching materials based on the background of integration of industry and education[4] ; Liang Jianchao and others conducted research on the connotation, development and application of vocational education teaching materials based on the perspective of vocational competence cultivation; Luo Hailin proposed research and development of new forms of vocational education teaching materials by analysing the insufficiency of the development of vocational education teaching materials[5] . Fu Yanfang et al. put forward the development path of new form of teaching materials in the context of new form of vocational teaching materials in terms of the insufficiency of development of new form of teaching materials and existing problems[6] . The literature review shows that, in terms of the construction of new teaching materials, the existing loose-leaf and workbook teaching materials are only formally updated, but their contents and structures are not up-to-date, and the contents of the teaching materials are out of touch with the reality of the work, and the reality and practice are not at the same level. The construction of new teaching materials is still a hot topic in vocational education.

2. Research on the publication of teaching materials

In the context of high-quality development, vocational education has made great progress, and in order to better promote the development of vocational education, researchers have also studied vocational textbook publishing from different aspects. Most of the literature is based on the exploration and thinking on how to innovate, build and select topics for textbook publishing in the context of the new era, the era of "Internet+" or the requirements of new policies. In addition, there are some authors who put forward countermeasures by studying the problems of textbook publishing, such as Wang Jia, who studied the current situation of textbook publishing in higher vocational education through the content analysis method, pointed out the problems of textbook publishing and put forward countermeasures[7] ; Fan Qinjian, based on the new media perspective, pointed out that textbooks should be innovated, and change according to the pattern of "textbook+resource+platform+service". The pattern of "teaching materials + resources + platform + service" is to be changed[8] ; An Wei and Xu Yongjie, based on modern apprenticeship system, put forward that the innovation of building materials publishing should be carried out from the three aspects of the basis of teaching materials writing, formulating the template of teaching materials writing, and determining the principles of content development[9] .

3. Research on the development of teaching materials

Vocational education is to cultivate high-quality technical and skilled talents, which plays an indispensable role in the development of the society, and the teaching materials, as the carrier of cultivating talents, are in a strategic position. Recently, vocational education teaching materials have

become the focus of research with the proposal of vocational education cultivation programme. The development of vocational education teaching materials contains many parts, such as morphology, content, and curriculum standards, etc. Through the knowledge network, the main focus is on loose-leaf teaching materials, workbook teaching materials, integrated media, stereoscopic and school-enterprise cooperation. On the basis of reviewing the theories of workbook teaching materials development at home and abroad, Lu Xiaoshuang proposes the research of teaching materials in terms of the main body of development, the design of content and the construction of integrated media[10] ; Hao Fujin proposes the research of teaching materials development of integration of production and education in vocational colleges and universities based on the strategic background of developing the country through science and education[11] ; Wang Jiaojiao and Du Huiji believe that the development of teaching materials should adhere to the principle of cooperation between school and enterprise as a "dual" main body, and promote the cooperation of school and enterprise as a "dual" main body. "Wang Jiaojiao and Du Huiji believe that the development of teaching materials should adhere to the principle of cooperation between schools and enterprises and promote the development of new forms of vocational teaching materials.[12] .

4. Research on the reform of teaching materials

Textbook reform is an important part of the "Three Teachings" reform, which is aimed at fostering high-quality and highly skilled personnel by strengthening the reform of vocational textbooks. Vocational education textbook reform mainly focuses on the content, but at present, the content of vocational education textbooks is seriously homogenised and has no distinctive characteristics of vocational education. Shang Junyan puts forward the corresponding strategies on the problems of vocational textbook reform[13] ; Song Yihua et al. explore the implementation path of vocational education textbook reform based on the method of textbook management in vocational colleges and universities from the aspects of ideology and politics, textbook management, and teaching reform[14] ; Promoting the textbook reform is an important means of high-quality development of skilled personnel, and the reform of vocational education textbook is also an imperative.

5. Conclusions and Outlook

5.1. Conclusion

At present, the number of literature related to vocational education teaching materials research continues to increase, indicating that teaching materials are still the hotspot of vocational education research, and the research hotspot areas are extensive, mainly in the fields of teaching materials construction, teaching materials evaluation, teaching materials publication, teaching materials reform, digital teaching materials and other areas. In the future, the research trend of vocational education teaching materials will be influenced by national policies, and vocational education teaching materials will be oriented towards digital transformation, new forms of teaching materials, research on the construction of high-quality vocational education teaching materials, and research on vocational education teaching materials under the orientation of curriculum

ideology and politics, etc. The research on vocational education teaching materials will be more comprehensive, professional, distinctive, and innovative, so as to promote the high-quality development of vocational education teaching materials.

5.2. Future prospects

1. Broadening the research direction of vocational education teaching materials and enriching research themes

Currently, the theme of the research is mainly focused on the construction of teaching materials, teaching materials development, teaching materials publishing, teaching materials reform and other areas, since, high quality development put forward, all areas are being studied, vocational education teaching materials are no exception, in the new situation, vocational education teaching materials in order to develop must adapt to the pace of social and economic, to expand the field of research on teaching materials, and constantly enrich the theme of the research, to meet the new stage, the new requirements, the new occupations, the new The research of vocational education teaching materials is to cultivate high-tech talents to serve the society, and it is necessary to broaden the research field of vocational education teaching materials, which can be expanded mainly from these aspects; developing digital new form teaching materials; integrating curriculum ideology into vocational education teaching materials; constructing school-enterprise "dual" co-operation mode teaching materials; constructing industry-teaching integration composite teaching materials to cultivate new talents; and developing new vocational education teaching materials. The integration of industry and education into composite teaching materials to cultivate conforming talents; optimising the standards for the preparation, review and evaluation of teaching materials, expanding the research aspects of vocational education teaching materials, enriching the research themes, cultivating all-round technical and skilled talents, and laying the foundation for the high-quality development of the whole society.

2. Increase the research methodology of vocational education teaching materials and improve the scientific nature of research

At present, the theme of research methods are mainly, literature research method, interview method, questionnaire survey method, etc., for vocational education teaching materials research, the use of empirical research methods are still less, thus lacking in research comprehensiveness and scientific nature. Most of the scholars conduct research from their own experience or relevant theoretical knowledge obtained from outside, and there are subjective factors that dominate, resulting in the scientific results of the research is not high. In the future, the research on vocational education teaching materials pays more attention to empirical research, focuses on the collection and analysis of data, improves the credibility of the theme research, and lays a scientific foundation for the high-quality development of the research. In terms of research methodology, quantitative and qualitative should be combined to make the results more persuasive and scientific, and provide a foundation for the high-quality development of modern vocational education teaching materials.

3. Highlighting the distinctiveness of vocational education teaching materials and clarifying the research path of teaching materials

At present, the most obvious problem of vocational education teaching materials is that the contents of the teaching materials are seriously homogenised, the vocational characteristics are not prominent, and they are not in line with the direction of the training of applied talents. Vocational education" and "general education" are two different types of education. "General education" favours the learning of theoretical knowledge and further studies, while "vocational education" favours the cultivation of technical skills and employment. Vocational education" favours the cultivation of technical skills and employment. Nowadays, the phenomenon is that "vocational education" also favours the learning of theoretical knowledge and the promotion of higher education, and neglects the cultivation of students' skills. Highlighting the special features of vocational education teaching materials can enhance students' independent learning ability, enrich teachers' teaching activities, promote the development of regional industries, and strengthen the confidence of national culture. The purpose of highlighting the distinctiveness of vocational education teaching materials is to provide high-quality talents for the society, focusing on the cultivation of skills, connecting with actual production in the preparation of teaching materials, introducing typical cases of vocational education and highlighting the characteristics of vocational teaching materials. In recent years, loose-leaf, workbook and media integration teaching materials have appeared, enriching the characteristics of vocational education teaching materials[15], but the phenomenon of copying loose-leaf and workbook teaching materials has appeared in the cultural and basic courses of most vocational colleges and universities, which has made the vocational education teaching materials highly similar and homogenised, and lacking in distinctiveness. Cultural and basic courses can be integrated with the concepts of curriculum ideology and green development according to social development.

4. Applying multidisciplinary theoretical perspectives to enhance the theoretical research level of vocational teaching materials

One of the problems hindering the development of vocational education materials is the single perspective of research on vocational education materials. The single perspective of research on vocational education teaching materials makes it impossible to scientifically reflect the impact of society on production. There is a big difference in the educational environment between China and foreign countries, while there is also a difference in the construction of educational materials. In the future, through the perspectives of political science, philosophy, history, linguistics and other disciplines, through in the process of vocational education teaching materials writing, development, design, management, publication and evaluation, etc., the process of vocational education teaching materials research has been enriched, the scope of vocational education teaching materials research has been enlarged, the number of vocational education teaching materials research has been increased, and the quality of vocational education teaching materials construction has been upgraded. In the future, research on vocational education teaching materials from the perspective of multidisciplinary theories will enrich the content of vocational education teaching materials, enhance students' interest in learning, improve students' comprehensive quality, and satisfy the social demand for highly technical and skilled talents. In addition to this, using a variety of research methods and combining empirical and

theoretical research, we will continuously improve the scientificity of teaching material research and provide a multidisciplinary theoretical foundation for the high-quality development of modern vocational education teaching materials.

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