

A Review on the Compilation of College English Textbooks in China Based on Big Data

Mao Feng, Li Quan Shanghai University of International Business and Economics, Shanghai, China WU Biyu East China University of Science and Technology, Shanghai, China

With the help of Big Data and Citespace software, this research makes a statistical analysis of the journals and dissertations on College English teaching and learning materials collected by CNKI from 2011 to 2020. This paper, based on the knowledge map drawn by the visualized analysis of literatures volume, authors, research institutions, and keywords clustering, analyzes the current research status and hotspots in the compilation of China's College English textbooks.

Keywords: compilation of College English textbooks, compilation of College English learning and teaching materials, visualized analysis

Introduction

College English is a public basic course stipulated by the Ministry of Education in China, which plays an important role in the curriculum system of China's colleges and universities. Since the mid-1980s, the Ministry of Education has guided, supervised, and promoted College English teaching through nationally planned teaching materials, Teaching Syllabus, Teaching Requirements for College English Course, and the National College English Test Band 4 and 6. Under the great concern of the Ministry of Education, College English has quickly become the largest, the most popular, and the most influential course in China's college curriculum. However, the huge investment of the Ministry of Education has not paid off as time consuming and inefficiency are still the major problems in China's College English education.

As an important basis for teaching, textbooks have direct impacts on teaching quality and learning effect; thus they are the most important factors in education (Yan, Zhao, & Liu, 2019). Adopting literature measurement analysis, this research takes "compilation of College English textbooks", "development of College English textbooks", or "compilation of public English textbook" as subject terms to search published literatures collected in CNKI from 2011 to 2020, and draws knowledge maps through a visualized analysis of

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MAO Feng, associate professor, School of Languages, Shanghai University of International Business and Economics, Shanghai, China.

LI Quan, Master, School of Languages, Shanghai University of International Business and Economics, Shanghai, China.

WU Biyu, professor, School of Foreign Languages, East China University of Science and Technology, Shanghai, China.

literature volume, authors, research institutions, and keywords clustering, in order to study and reflect on the compilation and status quo of College English textbooks in China.

Data Source and Research Method

This research adopts a visualized method to analyze the knowledge map of the literatures on China's College English textbooks compilation, which are obtained from CNKI database.

Data Source

In this study, CNKI is used as the source of literatures search. In CNKI database, "compilation of College English textbooks", "development of College English textbooks", or "compilation of public English textbooks" are as subject terms to conduct a search, and the search date is from January 2011 to December 2020. The number of relevant literatures on this topic is 372, including conference papers, books, newspapers, journals, and dissertations.

Research Methods

The mapping of scientific knowledge relies on the combination of database, Excel table, and analysis software. In order to intuitively and concisely reflect relevant information about China's College English textbooks compilation, this paper uses Citespace, an analysis software developed by Professor Chen Meicao from Drexel University and conducts data mining on the research samples to generate the knowledge map of College English textbooks research in China. With further literature reading and study, the paper analyzes the development status and research hotspots of this field. The knowledge map drawn by Citespace is not only reader-friendly, but also scientific and rational. To some extent, this method overcomes the shortcomings of traditional literature review.

Findings

In order to grasp the current research status, research hotspots, and developing trends of China's College English textbook compilation, this paper makes a systematic review of the literature characteristics, research entities, research hotspots, and frontier research of this field.

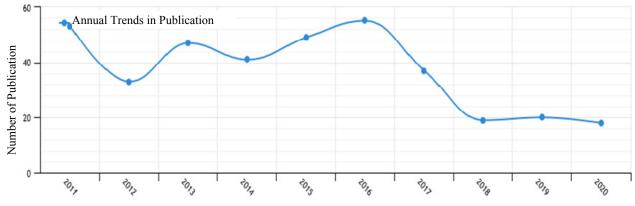
The basic measurements of literature data include the time distribution of literature, source journals, publishing institutions, authors, keywords clustering view, and other contents. Through the quantitative analysis and visualized research of literature data, it is helpful to have a more direct and comprehensive understanding of research information in this field.

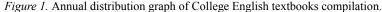
Literatures Volume

The chronological distribution of literatures can show the relationship of quantity and published time. The change of the number of literatures over time is helpful to explore the research progress of this theme and the reasons of the fluctuation of the quantity curve. This paper makes a statistical analysis on the quantity and published time of literatures about College English textbooks compilation, and the result is shown in Figure 1.

It can be seen from Figure 1 that the research on the compilation of China's College English textbooks is mainly divided into two obvious stages. (1) Initial development period (2011-2016): In this stage, there were 278 papers on the compilation and development of College English teaching materials, accounting for 74.7% of the total published papers in the past 10 years. In general, there are a large number of papers, and the annual publication volume is basically fixed at about 40 papers. The number of issues increased to 55 in 2016, the

highest in the past decade. The period from 2011 to 2015 is the 12th Five-Year Plan period of China. Education development is one of the key projects. China has implemented the strategy of rejuvenating the country through science and education and the strategy of strengthening the country through human resources development, and accelerated the building of an innovation-oriented country. The Ministry of Education in China has also issued opinions on the setting up of colleges and universities during the 12th Five-Year Plan period. With the gradual advancement of College English teaching reform, scholars have begun to pay more attention to the construction of College English teaching materials, which promotes the development of College English teaching materials to enter an unprecedentedly prosperous development period. (2) Stable development period (2017-2020): At this stage, the curve is not obvious. After 2017, the total number of articles published per year is about 20, which is generally small and has a steady growth. These data show that under the background of education internationalization, scholars have paid some attention to this field, but the research on College English textbook compilation is still in the growth stage.





Published Journals

The types and the number of published journals, to some extent, reflect the research direction and the development trend of this field. In the research process, core journals play important roles in promoting the development of this field, and provide good communication platforms for the development of this research.

Papers on the compilation of College English textbooks have been published by 20 Chinese core journals, including *Editorial Friend*, *Vocational and Technical Education*, *View on Publishing*, and so on. These journals are involved in publish literatures about College English textbooks development. Among them three are influential core journals in China, namely *Editorial Friend*, *View on Publishing*, *Foreign Language World*, and *Computer-Assisted Foreign Language Education*. Most of the papers published by *Editorial Friend* focus on the characteristics of College English textbooks in compilation, the demand of learning materials compilation for independent colleges, and some non-English majors. *Foreign Language World* mainly discusses the main problems and suggestions in developing College English textbooks, as well as how to apply the teaching method to the compilation of a specific textbook. *Computer-Assisted Foreign Language Education* reviews the development of College English textbooks in the past 20 years and proposes the compilation and content of English teaching and learning materials should be based on majors. However, in general, the quantity and quality of papers written about the development of College English textbooks are relatively insufficient, with only about 10% of them published in core journals.

Authors

The core authors among those that have published papers are the core strength of the research. The number of publications and their references has gradually become important factors to measure an author' contributions to scientific research, and can reflect his academic research ability as well as the development status of the field to some extent.

From the CNKI database, we can see that many authors have distributed in the field of studying College English textbooks compilation in the past 10 years, such as Cai Jigang, Zhang Jun, Liu Nihua, Liu Yanhong, and so on. Professor Cai Jigang from Fudan University has distributed most in this field and published four relevant papers on English teaching and learning compilation. According to statistics, Professor Cai has published 179 articles with a citation rate as high as 367,257. Besides, most of his papers have been published in the core journals, such as *Foreign Language World*, *Foreign Language Education*, *Foreign Language Teaching and Research*, *Foreign Language Learning Theory and Practice*, which indicates that this field of research has attracted the attention of influential scholars in foreign language field.

Cai Jigang (2011) believed that College English textbooks must keep pace with the times amid changes of the society and the global environment to make a breakthrough in the compilation. Zhang Xuemei (2019) proposed that the primary task of College English teaching and learning materials compilation in the new era was to clarify what talents should be trained by College English teaching. The development of College English teaching and learning materials should also meet the demands of the times to ensure the correct direction and quality of English teaching. However, there are few high-level researches focusing on the compilation and development of College English teaching materials, and few research conclusions are embraced with high degree of consensus and have strong persuasion.

Keywords

Keywords are highly generalized and condensed expressions of a paper, presented in short and concise words or phrases. By analyzing the frequency and centrality of keywords, we can have a more in-depth and comprehensive understanding of relevant topics in the compilation of College English textbooks in China.

In this research, Citespace is used to investigate topics of China's College English textbooks compilation. First, import relevant data, and then set relevant parameters. Time slicing is set as 2011-2020. Year per slice is set as 1, and the term source selects Title, Abstract, Author Keywords, and Keywords Plus. In Node Types, check Keywords. Finally, click Go to run the visualization software. The number of nodes is 296, the number of connections between nodes is 535, and the density is 0.0123. A total of 11 clusters are generated.

Keywords in Figure 2 reflect the themes of the research on the compilation of China's College English textbooks in recent 10 years, and reveal the research hotspots and development trends in this field. The smaller the label of the cluster is, the higher the research heat of the cluster is. The figure has a total of 12 cluster tags, listening and speaking tutorial as the core with multi-direction and multi-level. Keywords clustering include: listening and speaking course, Chinese culture, textbook compilation, topics in College English teaching, textbook development, task-oriented, multimodal discourse analysis and College English reform. In addition, the figure shows the developing status of the research topic in the time frame. The more articles published a certain time line has, the more published results are in this period and vice versa. As shown in Figure 2, the links between 2011 and 2016 are relatively intensive, indicating that the research results of this topic during this period are abundant in both perspectives and numbers. The thematic studies on clustering 0 and clustering 2 to

5 have been carried out up to now, meaning that there are many literatures in these fields and they still attract the attention of some scholars. But on the whole, there are more subjective and micro researches than macro and empirical researches.

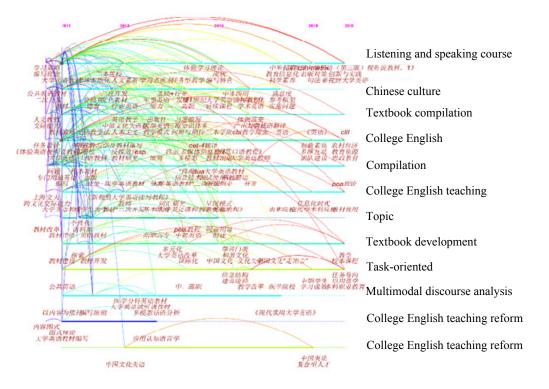


Figure 2. Keywords time line map of the compilation of College English textbooks.

Accordingly, this paper, based on the analysis of previous scholars' research, in combination with keywords time line map, tries to summarize and generalize the research hotspots of the compilation of China's College English textbooks. This topic can be macroscopically divided into five research hotspots: research of listening and speaking textbooks, research of the application of textbooks, research of textbook themes, and research of the development of multimodal College English learning materials.

However, there are obvious deficiencies in the compilation of College English textbooks, and many of them fail to achieve the goal of teaching reform in actual use (Chen, 2007), which shows obvious test-taking tendency (Cai, 2011; Guo & Xu, 2013). Wang Chuming (2014) believes test-oriented exercises are boring, unable to "stimulate students' endogenous expression power".

The above research results show that most scholars discuss about the textbooks that they have participated in compiling, including the introduction of the features of textbooks and compiling ideas, the revision instructions, and so on. Most other researchers also evaluate textbooks via teachers' and students' questionnaires or according to their teaching experience. Many scholars talk to themselves and mutual recognition is not high. Few researches and papers on College English textbooks discuss on the theme with unique visions and new technology background. Likewise, few scholars can explore the research and development path of college students' English learning ability effectively according to China's national conditions and the needs of the new era.

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