Research Status, Hotspots and Trends of Business English Writing in China: A bibliometric analysis via CiteSpace

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Abstract
Limited research systematically reviews the literature on Business English writing in China. Through bibliometric analysis via CiteSpace, this research objectively maps the knowledge area and aims to provide a systematic, historical, and quantitative overview of BEW research in China from 1985 to 2022. 936 journal papers published from 1985 to 2022 in the China National Knowledge Infrastructure database were used as the data source to visualize the research status quo, hotspots, and trends in this field. This paper provides valuable insights into the historical development and current trends for novice researchers and practitioners in this field.

Keywords: Business English writing; Bibliometric analysis; Visualization; Citation

1.0 Introduction
With the inception of the “Belt and Road Initiative” in 2013, considerable progress has been made in the field of foreign trade in China. Currently, an increasing number of local enterprises in China appear to invest and engage in business cooperation with countries along the “Belt and Road Initiative” routes. However, some enterprises appear to face language barriers (Wang & Ai, 2019). Qian (2021) maintained that in the context of the globalization of business activities, Business English (BE) is regarded as the primary language of international business communication for business activities and business transactions (Wang, 2021). Hence, Business English writing (BEW), as a main compulsory course for BEW in China, aims to enhance students’ ability and skills to communicate in written form with international businessmen (Wang, 2021).

Bibliometric analysis (BA) is a rigorous method to explore and analyze massive amounts of literature quantitatively to uncover the intellectual structure or emerging trends of a specific field (Donthu et al., 2021). By addressing the limitations of the conventional literature review research process, BA provides for a large volume of literature to be reviewed and displays hot spot changes as well as changing trends in a particular field (Diao et al., 2022). BA has been used in limited studies on BEW research. Sun and Asmawi (2022) visualized BEW instruction in China from 2002 to 2021. However, the scarcity of systematic reviews on BEW, specifically using BA, makes it challenging to understand the complete structure and clues hidden in the literature.
Taking into account its dynamism and significance, this paper aims to provide a systematic, historical, and quantitative overview of BEW research in China from 1985 to 2022. The research objectives are to examine the status, hotspots, and research trends of BEW research in China during this period. The research questions addressed are:

1. What is the research status of BEW in China from 1985 to 2022?
2. What are the hotspots of BEW in China from 1985 to 2022?
3. What are the research trends of BEW in China from 1985 to 2022?

2.0 Literature Review

Qian (2021) maintained that in the context of the globalization of business activities, BE is regarded as the main language of international business communication for business activities and business transactions (Yang, 2019). Most of the enterprise's internal and external business activities include written business communication forms, such as notices, memos, reports, letters, and emails for job invitations, congratulations, thank you notes, promotions, business consultation, consultation, claims, confirmation, and rejection (Tang, 2021). Numerous studies have been conducted on BEW from different perspectives, including textbook writing (Hu & Li, 2021; Xiong, 2020), Business E-mail genre analysis (Park & Shim, 2021), writing strategies and principles (Van et al., 2022), and students' BEW competence (Wang & Fan, 2021). Chinese students commonly struggle in BEW due to their reliance on Chinese sentence structures, leading to frequent grammatical and word choice errors in their compositions (Chen, 2021). Wang and Ai (2019) reviewed the evolution of Business English education in China over 40 years, highlighting curriculum development, disciplinary structuring, theory integration, and research areas. However, their research (Wang & Ai, 2019) is a historical overview and reflection rather than a systematic literature review.

Limited researchers have conducted BA of literature on BEW. Xu and Dou (2018) utilized BA to examine teaching practices in BE. Meanwhile, Hu (2019) conducted a visualization analysis of ESP research in China from 2000 to 2017. It's essential to note that their research concentrated on ESP or BE in general, rather than specifically on BEW. Sun and Asmawi (2022) visualized BEW instruction in China from 2002 to 2021. They found that BEW research had three stages: initial exploration, growth, and ongoing development, focusing on teaching content, methods, mode, and design, particularly in higher vocational colleges. The findings of Sun and Asmawi (2022) provide insights into BE teaching practice in China and visualization methodology. However, their study concentrated only on the teaching of BEW, a holistic review of BEW research using BA is still lacking.

3.0 Methodology

3.1 Research tool

Citespace is a software for bibliometric measurement, aiding in understanding a specific discipline, finding literature within the discipline, and discovering the research evolution. It has developed continuously since its inception to meet the needs of visual analysis (Chen, 2017), and this study uses the latest version Citespace 6.1. R6.

3.2 Data source and process

The data source of this paper is limited to the literature retrieval platform, i.e., the China National Knowledge Infrastructure (CNKI) database, as it is the largest Chinese academic literature database and is continuously updated (Zhang et al., 2020). CNKI built the world's largest full-text database of Chinese academic journals (Sun & Asmawi, 2022) and stores the highest volume of literature in the field of BEW.

In terms of concentration and coverage of the literature, the retrieval time span was set from 1985 to 2022, because the first article on BEW which appeared in CNKI was published in 1985. For the accuracy of retrieval, the retrieval subject keyword was set as “Business English Writing” or “Business writing” in Chinese. Periodicals, dissertations, and conference papers were excluded from the related literature. The data retrieval date was December 31, 2022, and 939 journal articles were retrieved. After reviewing all the articles and eliminating irrelevant literature (meeting abstract, book reviews, booklists, etc.) and duplicate literature, 936 valid articles were obtained. The data is exported in Refworks format and imported into Citespace for format conversion. The converted format of 936 articles was used as the data sample for BA using Citespace 6.1. R6.
In Citespace, different kinds of networks depict different scientific knowledge spectrums. The clustering function divides physical or abstract objects into several groups which are called clusters. Within one cluster, there is a high degree of similarity between different elements. The elements are also highly distinctive from those among different clusters (Chen, 2017). In addition, the burst of keywords during a period reflects the dynamic features of a research field, and keyword burst detection reveals the changes in research hotspots and trends (Shao et al., 2021). As presented in Fig. 1, keyword co-occurrence and cluster analyses were used to depict the research hotspots and keyword burst detection was analyzed to describe the trends in this paper.

4.0 Findings

4.1 Annual publication

To understand the research status of a field, as per the first research question, one needs to look at the literature quantity or the annual publication number (Wang et al., 2020). Fig. 2 shows the number of journal articles published in China from 1985 to 2022, and it is evident that articles published on BEW began rising exponentially from 2001 and peaked in 2012. However, there was a decline thereafter in research in this field.

![Fig 2: Annual Publication of Business English Writing in China (1985-2022)](Source: Authors, 2023)

4.2 Keywork co-occurrence and cluster

Chen (2017) highlighted that keyword analysis is an effective means of identifying research hotspots and trends. This study analyzed the keywords of 936 journal articles. The time frame was set from 1985 to 2022 with one year as a time slice. The search term was selected from the title, abstract, and keywords. The keyword was selected for the node type, and the standard g-index, k=25 was selected, other options were set by default values. After the pruning operations, two knowledge networks, i.e., co-occurrence and cluster knowledge networks, were generated, described, and analyzed.

![Fig 3: Co-occurrence Network of Keywords of Business English Writing in China (1985-2022)](Source: Authors, 2023)

Keyword co-occurrence analysis was carried out. Keywords reflect the main content of an article, and those with high frequency in the literature can shed light on the research hotspots in a specific field within a certain time frame. The keyword co-occurrence knowledge network generated in this study (see Fig. 3) contained 431 nodes, and 566 links, and recorded a network density of 0.0061 with a moderate network structure. The frequency of keyword occurrence can be seen by the size of nodes (Chen, 2017). It can be seen that
the largest nodes include “Business English writing”, “Business English”, “teaching approach”, “Business English correspondence”, “writing principle”, “higher vocational colleges”, “genre analysis”; “cooperative learning”, “English business letter”, “flipped classroom”, indicating that these keywords appear most frequently, and have been the research focus in the literature on BEW.

These keywords can shed light on the features of the research field, but a more comprehensive picture of the research themes requires additional keyword analysis, i.e., cluster analysis. Cluster analysis is used to classify and analyze salient terms and backgrounds in a certain research field and to sort the links among a large amount of literature to identify the rules of the research themes (Diao et al., 2022).

In terms of cluster analysis, this study adopted the LLR, a suitable algorithm to generate high-quality clustering (Wang et al., 2020) to cluster the keywords. The clustering recorded a modularity Q value of 0.8302 and a mean silhouette value of 0.9857, which implies that the cluster members have high homogeneity and that the clustering is highly reasonable (Guo & He, 2020). 12 clusters and their keywords extracted are presented in Table 1.

Table 1: Keywords in Clusters

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>Silhouette value</th>
<th>Mean year</th>
<th>Label</th>
<th>Keywords in LLR</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>100</td>
<td>1</td>
<td>2013</td>
<td>Business English Writing</td>
<td>Intercultural Communication; Case-based teaching Approach; Coursebook development</td>
</tr>
<tr>
<td>1</td>
<td>57</td>
<td>1</td>
<td>2011</td>
<td>Writing Ability</td>
<td>Writing Competence; Needs Analysis; Error Analysis</td>
</tr>
<tr>
<td>2</td>
<td>27</td>
<td>0.913</td>
<td>2009</td>
<td>Writing Principle</td>
<td>Business Correspondence; Cooperation Principle; Tense and Voice</td>
</tr>
<tr>
<td>3</td>
<td>25</td>
<td>0.997</td>
<td>2010</td>
<td>Communicative Approach</td>
<td>Foreign Trade Correspondence; 7C Principle; Error Analysis</td>
</tr>
<tr>
<td>4</td>
<td>22</td>
<td>0.963</td>
<td>2014</td>
<td>Textbook</td>
<td>Teaching Approach; Writing Feature; Textbook Compilation and Design</td>
</tr>
<tr>
<td>5</td>
<td>16</td>
<td>0.993</td>
<td>2016</td>
<td>Higher Vocational College</td>
<td>Curriculum Content; High-Quality Development; Teaching Reform</td>
</tr>
<tr>
<td>6</td>
<td>13</td>
<td>0.993</td>
<td>2013</td>
<td>Action Research</td>
<td>Cooperative Learning; Project-based Learning; Group Learning; Blended Learning</td>
</tr>
<tr>
<td>7</td>
<td>13</td>
<td>0.962</td>
<td>2016</td>
<td>Flipped Classroom</td>
<td>Teaching Effect and Application; Business English Training Course</td>
</tr>
<tr>
<td>8</td>
<td>13</td>
<td>0.958</td>
<td>2007</td>
<td>Genre Analysis</td>
<td>Process-genre approach; Genre Pedagogy; Schematic Structure</td>
</tr>
<tr>
<td>9</td>
<td>8</td>
<td>0.986</td>
<td>2012</td>
<td>English Business Letter</td>
<td>English Writing Skills; Pragmatic Presupposition; International Trading;</td>
</tr>
<tr>
<td>10</td>
<td>8</td>
<td>0.99</td>
<td>2017</td>
<td>Writing Teaching</td>
<td>Production-oriented Approach; Multiple Evaluation; Applied Undergraduate Program</td>
</tr>
<tr>
<td>11</td>
<td>8</td>
<td>0.999</td>
<td>2011</td>
<td>Course Design</td>
<td>Core Skills; Multi-dimensional Assessment; Competence</td>
</tr>
</tbody>
</table>

The 12 clusters presented in Table 1 have repetitive and overlapping content, such as “flipped classroom”, “course design”, and “process writing method”, and therefore are categorized as “teaching approach”. Further comparison and analysis of clustering results and keywords led to six research themes, including learning behaviours, writing ability, writing principles, teaching approach, textbook, and genre analysis, which are further discussed in the discussion section.

4.3 Keyword burst

![Fig 4: Top 20 Keywords with the Strongest Citation Bursts in Business English Writing](Source: Authors, 2023)
Research trends of a specific discipline are a pertinent indicator of the future direction of research. The keyword burst detection in Citespace combines the factors of published years and keywords together to reveal the emergence and evolution, and any sudden increase or decrease of keywords in the number of citations would reveal the changing trends in the literature (Wang et al., 2020). A topic receiving special attention from researchers during a specific period is an important indicator of new trends and future directions of a research field (Diao et al., 2022; Wang et al., 2020).

The top 20 burst items with their burst strength, and beginning and ending years are shown in Fig. 4. “Year” represents the time when keywords first appeared, and “Strength” stands for the value of the burst strength. “Begin” and “End” mark the beginning and the end of the burst period. By combining the annual publication details as seen in Fig. 2, and the burst keywords in Fig. 4., we can divide the burst keywords into different stages, and gain a better understanding of the historical evolution in the field of BEW in China.

As seen in Fig. 4, each development stage concentrates on different research themes. It is shown that the keywords with the longest duration of burst in the whole list are “genre analysis”, “writing principle”, and “Business English correspondence”, and burst beginning years are also the earliest in the period from 2002 to 2006. In 2007, the “writing skill” started to burst, and had the longest duration from 2007 to 2012, which indicates that researchers paid more attention to the application of BEW and the students’ writing ability. Another theme of textbook can be seen from the burst of keywords “content schema” and “Business activity”. Two noteworthy keywords are “cooperative learning” and “flipped classroom”, which had the longest burst duration during this stage, implying academic interest in students’ learning behaviours. The keyword “teaching approach” appeared in 2005, but the research interest surged from 2018 to 2020 and ranked third with a high burst strength value of 3.25.

5.0 Discussion

5.1 Research status
As per the first research question, research on BEW can be divided into three stages: the embryonic stage (1985-2007), the prosperity stage (2007-2018), and the maturity stage (2018-2022).

The teaching of BEW began in the 1950s, especially after China declared a reform and opening-up policy in 1978. The scope of China’s foreign economic and trade activities gradually expanded internationally, and the teaching content focused on foreign trade English (Wang & Ai, 2019). Therefore, during the embryonic stage (1985-2006), Chinese scholars began paying attention to BEW, publishing approximately 15 articles yearly.

In 2001 when China joined the World Trade Organization, and the globalization process hastened, demand for BE professionals in China grew rapidly (Wang & Ai, 2019). So, to meet the additional requirements arising from the new scenario, under the approval of the Education Bureau, BE was officially established as an undergraduate program in 2007 (Guo & He, 2020) and became one of the three English major programs (Wang & Ai, 2019). This indicates the starting point of the prosperity stage (2007-2017). Since 2007, an increasing number of colleges and universities have begun offering BE programs. Consequently, many researchers in China began researching the BE program and BEW. Within a decade between 2008 and 2017, the annual number of articles exceeded 50 each year and peaked at 98 in 2012. 2012 was the critical milestone of the BE program when it was listed officially in the national undergraduate program catalog in China (Guo & He, 2020). This also resulted in an exponential increase in published papers on BEW. However, although there was a fluctuating decline in the number of research papers, the annual publication numbers maintained a steady number of higher than 50.

In 2018, the Ministry of Education of the People’s Republic of China issued a National Standard for the quality of undergraduate Teaching for BE majors (Sun & Asmawi, 2022). The national standard provided curriculum guidelines for colleges and universities offering the program. In 2018, research on BEW moved into the maturity stage (2018-2022), i.e., a stage when experts, scholars, and teachers agreed on the teaching content and BEW teaching modes. The imposing of the national standard resulted not only in the maturing and stabilizing of BEW but also in the decline of research between 2019 and 2022 (Sun & Asmawi, 2022).

In sum, the increase in the number of published journal articles on BEW is consistent with the development of the BE program in China. Although BEW has ‘matured’ recently, numerous enterprises are constantly raising the issues of the quantity and quality of BE graduates. The BEW competence of graduates could not meet the needs of the workplace (Wang, 2021). Students also expressed the mismatch between the current BEW teaching and learning (Wang, 2021). Hence, research on BEW will remain an important field in the development of the BE program.

5.2 Research hotspots
To answer the second research question, research hotspots can be divided into six research themes as follows:
1. Learning behaviours. BEW research in China has delved into students' learning behaviours from the perspectives of cooperative learning (Peng, 2016), project-based learning (Huo, 2020), action research (Peng, 2016), blended learning (Huo, 2020; Zhang, 2018), etc.
2. Writing ability. BEW abilities have been studied from different perspectives, including writing competence (Wang & Fan, 2021), writing error analysis (Guo & He, 2020; Wang, 2021), and needs analysis (Guo & He, 2020; Wang, 2021).
3. Writing principle. Researchers in China have studied and agreed upon the seven principles of BEW, which are courtesy, completeness, consideration, clarity, concreteness, conciseness, and correctness (Wang, 2021).
4. Teaching approach. There is considerable literature on different approaches to teaching BEW, including the product approach, flipped classroom, process approach, process genre approach, etc.
5. Textbook. Textbooks play a significant role in the teaching and learning continuum. The research appears to focus on the evaluation
of current BEW textbooks, to provide suggestions for future textbook compilation (Hu & Li, 2021).

6. **Genre analysis.** Most research analyzed the characteristics of business letters or correspondence from the perspective of move analysis or schema theory (Wang & Fan, 2021).

### 5.3 Research trends

Regarding research trends, the three stages of BEW development encompass distinct research themes, indicating the evolving trends. During stage I, the embryonic stage (1985-2007), the research focus was on the themes of writing principles and writing genres. This implies that early research on BEW paid more attention to the format and content of certain BEW genres, especially Business correspondence or Business letters. This early research trend is understandable as the BE Program was established in China in 2007 (Sun & Asmawi, 2022) when researchers focused on setting the curriculum objectives and content for specific compulsory courses of the program.

In stage II, the prosperity stage (2007-2018), researchers began to focus on the themes of writing ability, textbook, teaching approach, and learning behaviours. Mo and Sun (2010) examined the problems in BEW writing textbooks, including lack of authentic content, insufficient needs analysis, and unreal business activities. In addition, researchers paid attention to classroom teaching and learning behaviours. For example, "cooperative learning", a student-centered and instructor-facilitated learning pattern (Hu, 2015), is another keyword with the longest burst duration from 2011 to 2016. As an important feature of the process teaching approach, cooperative learning has been adopted and discussed constantly among researchers in BEW in China between 2011 and 2016. Chinese researchers and instructors have tried incorporating "flipped classrooms" in BEW classes and reported positive outcomes (Sun & Asmawi, 2022). The flipped classroom was the focus of numerous studies from 2016 to 2020. This also marks the transition to the next stage.

Stage III is the maturity stage (2018-2022) when the research focus is on the BEW teaching approaches and students’ learning behaviours. In terms of learning behaviours, "academic achievement" and students' learning in "higher vocational colleges" are the new foci of interests, indicating that the academic interest has recently shifted from the generic features of BEW in early years to classroom teaching and learning behaviours (Huo, 2020; Peng, 2016; Zhang, 2018).

### 6.0 Conclusion & Recommendations

The BA of 936 journal papers on BEW in China from the CNKI database published from 1985 to 2022 using Citespace 6.1.R6 was carried out to explore the research status, hotspots, and trends. The results of the annual publication, keywords, clusters, and burst detection analysis show that firstly, research on BEW in China experienced three stages: the embryonic stage (1985-2007), the prosperity stage (2007-2018), and the maturity stage (2018-2022). Even though the number of annual publications is declining because of the maturity of the BE program, research on BEW remains stable. Secondly, research hotspots from 1985 to 2022 are BEW teaching approaches, BE correspondence or letters, BEW principles, BEW teaching in higher vocational colleges, and different BEW genre analyses. Thirdly, the six research themes that emerged include learning behaviours, writing ability, writing principles, teaching approach, textbook, and genre analysis. Last, the keyword burst detection shows the shift of research focus from generic features of BEW at the early stage to teaching and students’ learning behaviors in BEW recently.

Several limitations of this study are acknowledged. Firstly, in terms of data source, this study used only the CNKI database, which sheds light on the research status only in China and, therefore cannot represent the research on BEW in other countries. Second, the keyword clustering effect is not homogeneous enough, and some keywords are overlapping or missing in different clusters. When interpreting hotspots and research themes, a certain degree of subjectivity may have occurred, affecting the findings’ accuracy. Future studies can address these limitations using more comprehensive sample data from different databases and more diversified research analysis methods to reflect the research trends and development in BEW internationally.

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### Paper Contribution to Related Field of Study

This paper contributes to the related fields of study, such as English for Specific Purposes, Business English, and Business English Writing.

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