Review article

Exploring the transformative power of blended learning for Business English majors in China (2012–2022) – A bibliometric voyage

Adelina Asmawi [b], Hui Dong [a], Xiaotian Zhang [c], Lixuan Sun [a],*

[a] *Northeast Forestry University, Harbin City, Heilongjiang Province, China*
[b] *Department of Language and Literacy Education, Faculty of Education, Universiti Malaya, Kuala Lumpur, Malaysia*
[c] *Harbin Normal University, Harbin City, China*

ARTICLE INFO

ABSTRACT

This paper thoroughly examines the time distribution, author collaboration, research institutions, research hotspots, theme clustering, and research changes and trends based on 345 CNKI literatures in the field of blended learning for Business English majors in China from 2012 to 2022. It reveals that: Research on blended learning for Business English majors in China from 2012 to 2022 can be divided into Steady Start Stage (2012–2017), Rapid Growth Stage (2018–2020) and Stable Development Stage (2021–2022). High-frequency keywords such as blended teaching mode, MOOC, flipped classroom, SPOC, etc. are hotspots of current scholars' attention. The themes of research on blended learning of business English majors in China mainly include Teaching Reform of Business English Majors, Exploration of Blended Teaching Mode and Design, and Application of Internet Teaching Platform. "Teaching Reform", "Online and Offline", "Application of Smart Platform" are the current research frontier issues in the development of blended learning for Business English majors in China. In general, China's research on blended learning for business English majors has achieved fruitful results under China's policies. Future research should concentrate on the construction of a technology environment for blended learning between learners, a variety of intelligent learning tools and mobile devices, and should be steadily bolstered in the field of blended learning for business English majors, particularly in practical application, effectiveness analysis, distance education, training and continuing education, innovation education, etc.

1. Introduction

With the continuous development of China's economic construction, a large number of international enterprises have entered China with capital, technology, management, and other resources in the form of joint ventures or sole proprietorships, which have played a significant role in advancing the social development of China [1]. After entering the 21st century, particularly with the proposal and continuous progress of "the Belt and Road" initiative and the construction of a community with a shared future for humanity, Chinese enterprises are gradually moving towards the world, culture is constantly crossing borders, and academic exchanges are no longer limited by national boundaries [2]. In attracting local and foreign investment, various international activities

and economic trade, Sino-foreign business exchange, language communication, information sharing, data transmission, and cultural collision are all fundamental tasks, as well as the premise and key to international cooperation's success [3]. In light of the above, the training of business English specialists is crucial. Business English is an interdisciplinary and application-focused major developed in response to the needs of China's social and economic growth, with characteristics distinct from those of traditional foreign language majors. Due to its inter-disciplinary, pragmatic, and international aspects, business English education has become a hot topic in the field of foreign language education and teaching in China [4].

In 1996, the United States assumed the lead in the research of online learning and online training and built a gradual E-learning theoretical framework. Due to the influence or limitations of various original notions, however, people are still habituated to using the traditional classroom teaching mode, resulting in the unsatisfactory development effect of E-learning. Scholars have begun to think of the learning style in the technology world i.e. blended learning, which combines online and offline learning and is progressively gaining popularity [5]. Blended learning can be defined as the use of information media and techniques to accomplish an organic combination of online and offline, as well as synchronous and asynchronous learning to satisfy the needs of students [6]. In the context of Covid-19, blended learning has become an indispensable method of education, hence fostering a progressive increase in blended learning research [7]. The original teaching ecology of colleges and universities has been altered, presenting fresh reform possibilities for college instruction. Internet, big data, and education thus, have given rise to new educational concepts and structures.

Applying the blended learning method to business English professional courses involves using high-quality online resources and the extra features of online learning platforms in combination with adaptable and diverse teaching strategies to make online and offline teaching complement one another and jointly drive students' effective learning [8]. In addition to teaching in traditional classrooms, business English teachers can also use Internet technology to create online virtual teaching platforms, overcome the constraints of teaching time and space, and give students a variety of channels and practical tools for learning English. Additionally, the lack of authenticity in the language environment provided by teachers in traditional classroom English instruction makes it difficult to pique students' interest in learning the language and has a negative impact on the development of their English language proficiency. Teachers can use the online and offline blended teaching mode to enhance the English language environment in the classroom, arouse students' interest in the expression and application of English, and encourage students to study business English at a significantly higher level [9].

For the purpose of advancing the reform of business English instruction, the creation and implementation of a blended mode of online and offline instruction are essential. It is vital to review pertinent research on blended learning for business English majors in China, to describe existing classroom experience and to establish the groundwork for future study. This study uses the document visualization tool, Vosviewer, to visually analyse the literatures of China National Knowledge Infrastructure (CNKI) to charter the progress and trend of the research on blended learning of business English majors in China, summarize the experience and limitations of these studies, and provide guidance for raising the standards of future research and achieving the goal of effective global talent cultivation.

2. Literature review

2.1. China national knowledge infrastructure (CNKI)

China National Knowledge Infrastructure (CNKI) is a key national informatization project aimed at achieving the sharing of knowledge and information resources of the whole society [10]. CNKI has created the "CNKI Digital Library," which contains the largest collection of full-text information in the world, with the strong support of the People's Republic of China's Ministry of Education, the close collaboration of the academic, educational, and other sectors of society throughout the nation, and the direct leadership of Tsinghua University [11]. CNKI provides rich knowledge and information resources and an effective knowledge dissemination and digital learning platform for the sharing of knowledge resources in colleges and universities throughout the society [12]. CNKI has the world's largest continuously updated full-text database of Chinese academic journals, and the largest continuously updated full-text database of dynamic yearbook resources in China [13].

CNKI is a key participant and observer in the development of China's academic publishing service platform. CNKI has actively increased its database resources, utilized technology advantages like cloud computing, big data, and fragmented processing, and conducted in-depth mining and integration of digital resources in order to provide users with higher-quality and more tailored services. CNKI has achieved the transformation and upgrading from knowledge processing to knowledge management, and then to knowledge services by expanding resources, developing software, and providing platforms, so that knowledge products can better serve users and contribute to the development of the industry [14].

2.2. Bibliometric analysis

The bibliometric analysis is one of the ways of examining research in general, positive association between academics and the impact of scientific research [15]. Reviewed articles, peer-reviewed journal articles, books, periodicals, conference proceedings, reports, and other bibliometric publication data are analyzed through the statistical method known as "bibliometrics" [16]. Searching the Web of Science, Scopus, and the China National Knowledge Infrastructure (CNKI) by keyword, researcher, publication, and year will yield bibliographic details. Bibliometric analysis has been widely employed to illustrate the connection between quantitative methodologies and the subject under investigation [17]. Future researchers can employ bibliometric analysis to better represent the leading academics, institutions, and nations engaged in blended learning research.

2.3. VOSviewer

VOSviewer is a bibliometric software created by the Centre for Science and Technology Studies (CWTS) at Leiden University in the Netherlands. It may display a cluster network using cluster view, label view, density view as well as node connections. It provides distinct advantages for evaluating document keywords, subject clustering, author data and more. It is an essential tool for evaluating, mining, and analysing research topics [18]. VOSviewer is capable of thoroughly examining a discipline's research process and identifying its development trends, offering research institutions and research funders with a comprehensive perspective of their scientific activities to facilitate strategic decision-making.

2.4. Business English majors and blended learning

In 2007, Business English became a separate undergraduate major under the field of Foreign Languages and Literature in China. University of International Business and Economics, Guangdong University of Foreign Studies and Foreign Trade, and Shanghai University of International Business and Economics were the first undergraduate institutions to offer this major. In time, an increasing number of universities joined this group. Business English majors were formally recognized in the Undergraduate *Major Catalogue of General Colleges and Universities* by the Ministry of Education in 2012, becoming one of three English majors alongside English majors and translation majors. More than eighty colleges and universities successfully applied for this major in the same year. As of March 2022, according to statistics of the approved data of undergraduate majors issued by the Ministry of Education, a total of 425 undergraduate colleges and universities around the nation have established business English undergraduate majors [19]. Thus, Business English majors have entered a new phase of enhancing their professional meaning and quality, as a result of their early expansion. It shows that education and society as a whole are extremely concerned about the quality of business English talent training [20]. With the expansion of China's foreign business activities and the promotion of "the Belt and Road" initiative, there is a growing demand for English-speaking business professionals in China's economic society.

Blended learning is a kind of "online + offline" style of education that mixes virtual and classroom instruction. The teaching process is rearranged, the teaching design is optimized, and the traditional teacher-centred education is altered. With the use of information technology, learners are no longer constrained by time and distance, and can also connect with teachers more effectively, which is favourable to students' deep learning, encourages students' creativity, and fosters their own potential [21]. In 2018, the Ministry of Education of China issued the *Education Informatization 2.0 Action Plan*, which stated that by 2022, the platform of "Internet + Education" should be extensively constructed, and the building of digital campuses should encompass all schools. Moreover, with the emergence of the COVID-19 in 2020, teachers and students typically experienced the freedom and convenience of online education. Traditional classroom instruction would inevitably morph into blended learning [22].

College teachers and researchers have started a research upsurge on the combination of business English teaching and blended learning in order to meet the growing demand for business English talents in China, continue deepening the teaching reform of business English majors in colleges and universities, and promote the development of the business English discipline.

Therefore, this study is based on the VOSviewer visualization technology, uses the concept of bibliometrics to carry out comprehensive and systematic statistics and analysis on the research of blended learning for business English majors in China, deeply analyses the history of teaching research combining business English majors with blended learning, and grasps the achievements and development trends of existing research. It seeks answers to the following research questions.

Research Question 1.   What are the research stages of blended learning for business English majors in China?

Research Question 2.   What are the research hotspots and themes of blended learning for business English majors in China?

Research Question 3.   What are the changes and trends in the study of blended learning for business English majors in China?

3. Research method

3.1. Research instrument

In this study, the literature measurement software, VOSviewer, is employed for bibliometric analysis of literature research. Through cluster view, label view, density view, etc., a clear cluster network is displayed, node connections are displayed, and information, such as document keywords, topic clustering, and author information, is analyzed in order to effectively view, mine, and analyse pertinent issues within the research field.

3.2. Data source

The relevant literature for this study was sourced from the CNKI database. A comprehensive search was conducted, covering the time span from January 1, 2012, to December 31, 2022, with the retrieval date being January 2, 2023. Employing the advanced retrieval function, the key terms "blended learning" and "business English" were used to filter articles based on their subjects, keywords, and titles. In the initial search, a total of 381 articles were retrieved. However, to ensure the accuracy and relevance of the research data, a rigorous screening process was implemented. This screening consisted of three rounds of evaluation, during which documents that were determined to be unrelated to the research subject were excluded. A total of 36 articles were removed due to their

lack of relevance. As a result of this careful selection process, the final dataset for analysis consists of 345 effective documents. This dataset has been meticulously curated to ensure that it specifically pertains to the research topic. In 2012, Business English has just been officially listed by the Ministry of Education in the *Catalogue of Undergraduate Programs in Ordinary Colleges and Universities*. Therefore, few scholars have conducted research on blended learning before this, and the term "blended learning" has never been used in business English teaching research. It is mostly used within digital learning, online learning, or others. Therefore, the starting point for the selection of documents has certain directionality and rationality since 2012.

3.3. Data processing

The 345 selected literatures are exported via the "document export" function of CNKI in the Refworks format, imported into the Endnote software, and then, a database is generated, with all data selected for annual document volume and high-frequency keyword statistics. Through the function of removing and merging theme words, the software merges and processes theme words with similar meanings, and generates four visual knowledge maps of the author's contribution, high-frequency keywords, keyword contribution clustering, and keyword contribution superposition, which reveal the evolution of blended learning for business English majors in China over the past decade.

4. Results

4.1. Analysis of the quantity and trend of publications

The annual number of publications reflect the development level of the research field for a certain period of time [23]. It can be seen from Fig. 1 that the number of papers published in the research journals of blended learning for business English majors has generally increased from 2012 to 2022.

With the Business English major officially listed in the *Undergraduate Major Catalogue of General Colleges and Universities* by the Ministry of Education in 2012, business English education research ushered in a new development opportunity. The theoretical and practical research on the construction of business English major directly promoted the continuous growth of business English education research papers [24]. At the same time, 2012 is also known as the "first year of MOOC" in China. The large-scale open online education courses have set off a digital storm, and China's blended learning exploration. In 2014, the American New Media Alliance released the "Horizon Report", stressing that the application of blended learning design would become the key factor driving the application of educational technology in schools in the next one to two years, further affirming the importance of blended learning. At this stage, Chinese scholars paid more attention to the blended learning of business English majors than in the previous stage, and the development of relevant technologies has also promoted the research [6].

It is reiterated that the reform of educational informatization has led to the birth of the concept of blended learning. Since Li (2004) and He (2004) put forward blended learning, Chinese scholars have focused their research on students' learning styles in other disciplines and studied the basic concepts and theories of blended learning [25,26]. At this stage, there was less research on blended learning for business English majors [27]. From 2012 to 2017, there were only 39 research papers by Chinese scholars on blended
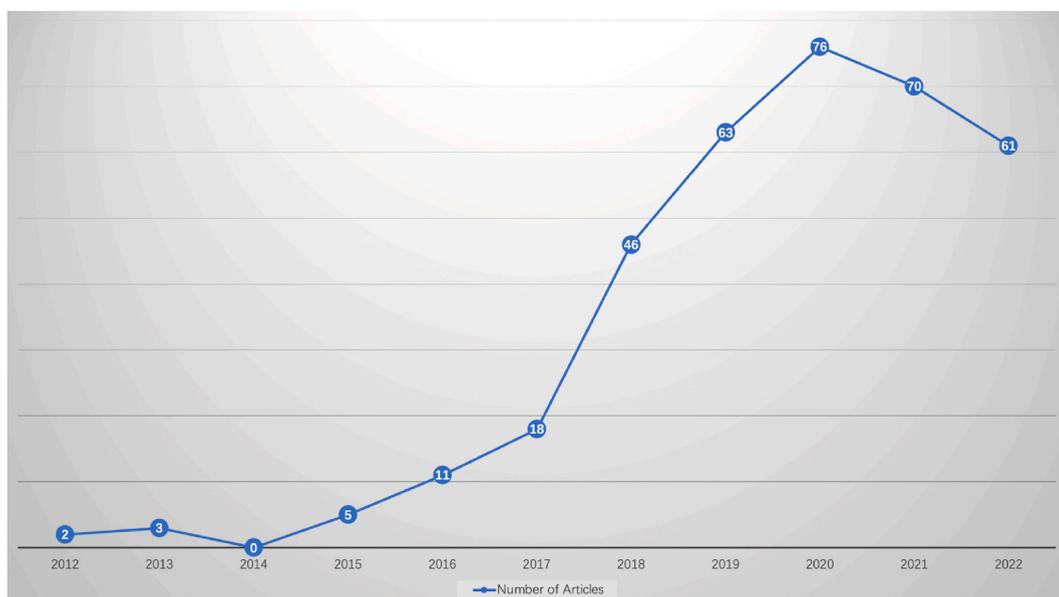

Fig. 1. Publishing trend of blended learning in business English majors papers in China from 2012 to 2022.

learning for business English majors. Since 2018, however, relevant research has shown a rapid growth trend. By December 31, 2020, Chinese scholars have published 224 articles in this research direction. Over the next two years, the number of papers published gradually declined, but it was basically stable at about 60 per year, indicating that the study of blended learning for business English majors has entered a relatively stable development cycle.

4.2. Analysis of knowledge map of Co-occurrence of authors

Highly productive authors and their cooperative groups in the discipline are the core driving force behind the development of publication in this field [28]. Through the knowledge map of authors' co-occurrence, high output authors and their cooperative relationships in the field can be displayed. The larger the area of the yellow circle, the more papers and collaborators it represents; If the yellow circle contains the names of two or more authors, it means that there is cooperation between the authors. The 388 authors in the field of blended learning in business English majors research from 2012 to 2022 were selected from the collected literature samples, and 45 core authors with certain influence were selected based on the minimum standard of two published articles (see Fig. 2).

Most of the 45 core authors carried out research independently, but formed three significant research cooperation groups: the first cooperation group is formed by Deng Haiyan and Xie Jie of Loudi Vocational and Technical College; the second cooperation group is formed by Weng Chunying and Yuan Yaya of Zhejiang Polytechnic for Industry and Commerce; and the third cooperative groups are formed by Zhen Ling from the China Business School of Guangdong University of Finance and Economics and Chen Xi from Wuhan College of Biotechnology.

Most of the other high-yield authors have completed relevant research independently and are limited to the cooperation among teachers of the same university and between graduate supervisors and students. The degree of cooperation and exchange between scholars is generally weak. With the reform of the current educational environment and the implementation of the national education informatization strategy, research on blended learning for business English majors has received high attention from the academic community. The core authors could further play a leading role and strengthen the cooperation and exchange with interdisciplinary researchers, so as to promote the expansion and extension of blended learning for Business English majors research.

4.3. Analysis of research institutions

The institutional map correlates to the distribution map of the authors (see Fig. 3). It is crucial to note that the distribution features of institutions are essentially consistent with those of authors, i.e., no single university has a distinct advantage in terms of the number of papers published.

Loudi Vocational and Technical College, Minnan University of Science and Technology, Hunan College of Foreign Studies,
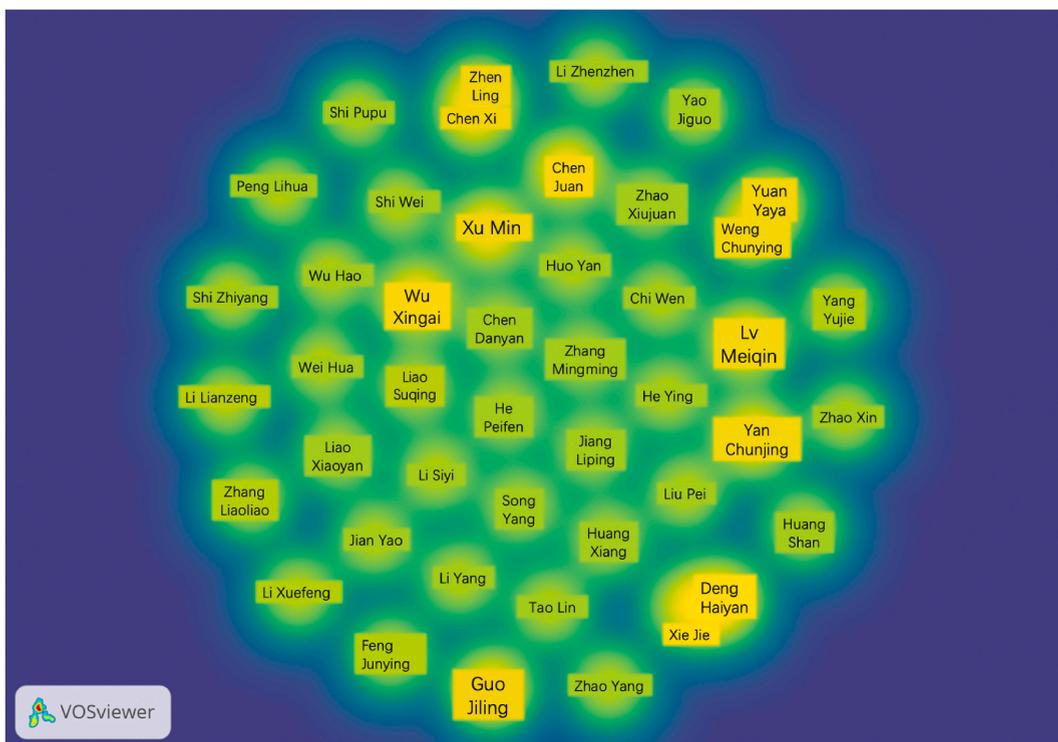

Fig. 2. Authors Co-occurrence map of blended learning for business English majors in China from 2012 to 2022.

Shandong Foreign Trade Vocational College, and Guangxi Normal University for Nationalities have the highest number of articles published (three articles), followed by two articles for Huzhou Vocational and Technical College, Guangzhou Railway Vocational and Technical College, Hunan Modern Logistics College, Yangzhou Polytechnic College, Jiangsu Maritime Institute, Zhejiang Business Technology Institute, Guangdong Industry Polytechnic, Shanxi Vocational University of Engineering Science and Technology, Shihezi University, Wuhan Vocational College of Software and Engineering, Jiangxi College Of Foreign Studies and Guangzhou City Polytechnic.

Fig. 3 also provides an insight into the different types of institutions which include undergraduate colleges such as Minnan University of Science and Technology, Shanxi Vocational University of Engineering Science and Technology, Shihezi University, Langfang Normal University, and Shanghai International Studies University, as well as higher vocational colleges such as Loudi Vocational and Technical College, Shandong Foreign Trade Vocational College, Guangzhou Railway Vocational and Technical College and Huzhou Vocational and Technical College, among others. The aforementioned result shows that the research on blended learning for business English majors in China has a broad scope and is consistent with the university's mission to cultivate applied foreign language talent. In terms of educational institutions, the course is provided not only by comprehensive universities, but also by colleges and universities specializing in finance and economics, foreign languages, and teacher education.

4.4. Analysis of high citation frequency of literatures

The highly cited documents show that many researchers agree with the authors' views and cite them. These documents have important contributions to the research in this field, and the knowledge base of this research field can also be found from them. According to the top 10 highly cited papers in the research journal of blended learning for business English majors in China from 2012 to 2022 (see Table 1), the highly cited papers mainly involve three aspects.

First is research on blended learning for business English majors in vocational colleges. In order to efficiently address a number of issues with traditional translation teaching and offer a way to maximize the effectiveness of translation instruction, Qiu (2016) discussed how to apply the flipped classroom teaching model to business English translation teaching in higher vocational colleges from three aspects - teaching method, learning mode, and evaluation system [29]. Liu (2017) explicitly examined the development of a blended teaching model based on "Internet plus" in higher vocational education from three aspects as well - before class, during class, and after class using the business English course as an example [30]. The primary blended classroom teaching design of *Comprehensive English,* a core course for business English major, served as the basis for Chen's (2017) investigation into the use of modern information technology to transform traditional English teaching methods and improve English teaching effect in the English classroom at Changjiang Vocational College [31].

Second is research on blended learning platform for business English majors. Fan (2017) of Yangzhou Vocational University conducted a thorough analysis of the blended learning method based on "Superstar Learning" for the teaching of a *Business English Intensive Reading* course [32]. Wu (2020) examined the development goals of the business English translation teaching mode, analyzed the multimodal teaching approach combined with Superstar Learning as the platform, and proposed practical teaching strategies based on the state of business English translation theory and practical teaching in colleges and universities [33]. In order to ensure business English courses are in line with the CBI teaching idea, Chen (2019) studied and analyzed the application mode and illumination of the online and offline blended teaching techniques based on MOOC and Rain Classroom [34]. Findings demonstrated the deeply

Fig. 3. Institutions map of blended learning for business English majors in China from 2012 to 2022.

Table 1
Top 10 referenced blended learning for business English majors literature in China from 2012 to 2022.

Ranking	Author	Title	Frequency	Year	Journal
1	Chen Xirong	An Exploration of Blended Teaching Model Based on CBI —Taking the Teaching Practice of "Business English" as an Example	82	2019	China Educational Technology
2	Li Zuo	Research on SPOC Blended Teaching Mode of College English in Higher Vocational Colleges	69	2019	Chinese Vocational and Technical Education
3	Qiu Min	Business English Translation Teaching Innovation in Higher Vocational Colleges Based on Flipped Classroom in the "Internet plus" Era	47	2016	Education and Vocation
4	Fan Wenqing	The Application of Blended Teaching Mode Based on Superstar Learning Link – Taking Business English Intensive Reading as an Example	38	2017	Journal of Kaifeng Institute of Education
5	Rao Miao & Deng Jianping	Business English Curriculum Design with Implicit Ideological and Political Education	32	2019	JOURNAL OF MINNAN NORMAL UNIVERSITY (Philosophy & Social Sciences)
6	Liu Yuehui	The Application of "Blended Teaching Mode" in the Teaching of Business English Correspondence	28	2015	Shandong Foreign Languages Teaching Journal
7	Liu Pei	The Construction of Blended Teaching Mode Based on "Internet plus" – Taking Business English Course in Higher Vocational Colleges as an Example	19	2017	Journal of Huanggang Polytechnic
8	Jiang Guiqin & He Peifen	Design and Practice of Blended Teaching Mode of Higher Vocational Courses under the 1 + X Certificate System	16	2021	Vocational & Technical Education Forum
9	Zhan Li	The Application of Blended Teaching Mode in English Classroom Teaching in Higher Vocational Colleges	15	2017	Journal of Hubei Adult Education Institute
10	Wu Xingai	Exploration of multi-modal teaching mode Based on superstar learning APP	14	2020	The Journal of Shandong Agriculture and Engineering University

intertwined modern information technology and classroom instruction in the blended teaching style based on MOOC and Rain Classroom. It fully utilized the benefits of both online and offline instruction, increased the amount of time and space available for learning, reconfigured traditional classroom instruction, increased student engagement and enthusiasm for learning, supported the reform of foreign language instruction, and enhanced the quality of curriculum instruction through creative teaching techniques.

Third is the studies of blended learning mode for business English majors. Jiang and He (2021) from Huzhou Vocational and Technical College implemented the blended teaching design of higher vocational courses in the school-enterprise collaboration, and
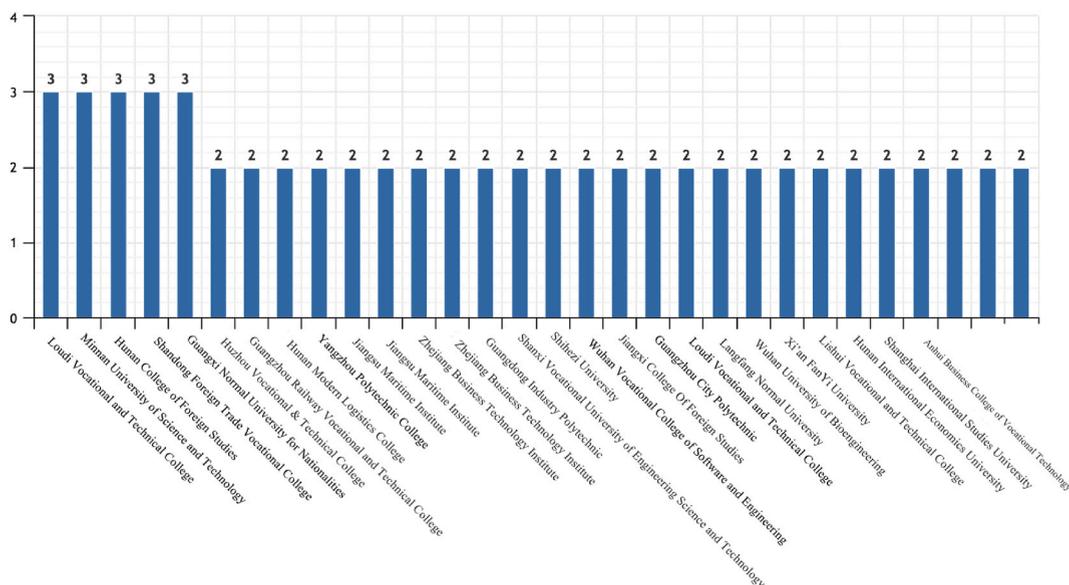

Fig. 4. Co-occurrence map of hot words in blended learning for business English majors in China from 2012 to 2022.

carried out teaching practice with the goal of addressing the gap between the quality of talent training in higher vocational colleges and the needs of enterprise [35]. It concentrated on developing students' key qualities and talents, such as value guidance, personal appeal, interpersonal communication, and social cognition in pertinent positions, by relying on a real industry-teaching integration platform. Results of the applied research demonstrated that the blended teaching approach used in the 1 + X certificate system's higher vocational courses clearly benefited the development of students' knowledge and abilities, teamwork and communication skills, and sense of craftsmanship.

According to the highly cited literature, research on blended learning for business English majors in China began relatively late, and the scope of research was narrow. The previous research was mostly qualitative research on concepts and theories, with relatively macro research issues. Later on, it gradually focused on the exploration of blended learning tools, platforms, and their combined models. The content of the research closely followed the development direction of the time, and focused on guidance or practical application.

4.5. Analysis of keyword Co-occurrence

Keyword is the core concept to represent the content of literature research. The Co-occurrence analysis method based on the frequency and correlation of keywords is of great significance to grasp the key topics in the research field [36]. In the knowledge map of keywords co-occurrence, the larger the circle area of the key words, the higher the frequency of the representative words, which is a hot topic in the research of blended learning; The more central the key words, the more important they are, which is an important concept in the research field. Through the analysis of 354 literature samples, a total of 1814 research keywords were obtained, 46 high-frequency keywords of blended learning for business English majors were obtained, and a knowledge map of high-frequency keyword co-occurrence was generated (see Fig. 4). At the same time, the top 20 high-frequency keywords in this field are sorted (see Table 2).

It can be seen from Fig. 3 and Table 2 that blended teaching (135 times), blended teaching mode (58 times), flipped classroom (38 times), blended learning (51 times), SPOC (21 times), business English writing (20 times), MOOC (19 times), teaching design (17 times), curricular ideological and political (12 times), Higher Vocational Colleges (11 times) and other high-frequency keywords have become hot topics in the study of blended learning for business English majors in China. In addition to the two key words of business English and blended learning, blended teaching mode, flipped classroom and SPOC rank as the top three. It is evident that the implementation and investigation of blended learning in the teaching practice of business English majors have always been a hot research topic. In terms of disciplines, Chinese universities conduct the most studies on blended learning for business English writing, followed by business English translation and reading; There is also a significant number of research on business English blended learning in "higher vocational colleges." In terms of teaching methodologies, numerous researchers have attempted to integrate POA with the blended learning mode of business English instruction for teaching practice research. Also, "online and offline", "teaching reform", and "Internet plus" have become hot words in contemporary research, which are consistent with the "student-centred" concept advocated by the Ministry of Education of China in the "13th Five Year Plan" to continue promoting online and offline blended teaching reform in colleges and universities.

4.6. Analysis of research theme clusters

Through the co-word cluster analysis of VOSviewer, relevant research themes in the field of blended learning for business English in

Table 2
High frequency keywords and frequency blended learning for business English majors literature in China from 2012 to 2022.

Serial Number	Keywords	Occurrences	Total Link Strength
1	Business English	165	319
2	Blended Teaching	135	237
3	Blended Teaching Mode	58	90
4	Flipped Classroom	38	97
5	Blended Learning	34	63
6	SPOC	21	44
7	Business English Writing	20	36
8	MOOC	19	46
9	Teaching Design	17	39
10	Business English Major	17	18
11	Curriculum Ideological and Political	12	16
12	Higher Vocational Colleges	11	20
13	Business English Translation	11	17
14	Business English Reading	10	13
15	Business English Teaching	9	13
16	Online and Offline	8	18
17	Higher Vocational Business English	8	14
18	Production-oriented Approach	7	19
19	Teaching Reform	7	13
20	Internet Plus	5	13

China from 2012 to 2022 can be found. Fig. 5 shows the co-occurrence cluster view of keywords in this field. It can be seen from Fig. 5 that the study of blended learning for business English majors consists of seven research topic clusters in total. After merging similar topics, three types of research themes are obtained: Teaching Reform of Business English Major, Exploration of Blended Teaching Model and Design, and Application of Internet Teaching Platform.

Theme One: Teaching Reform of Business English Major. The key words of the research theme mainly include "Business English major", "Higher Vocational Colleges", "Teaching Reform", "School-enterprise Cooperation", "Talent Training", and "Informatization Teaching". The difference between corporate English talent training and traditional English talent training resides in the objectives of the respective training programmes. As such, the combination of English and business is the distinguishing feature of business English talent training objectives [37]. The history of business English instruction in the majority of China's higher vocational colleges pre-dates that of undergraduate program The establishment of business English majors in a number of vocational institutions is also consistent with the educational philosophy of developing application-focused talent in higher vocational colleges. Currently, the number of vocational colleges offering business English majors is far more than that of undergraduate institutions. Consequently, there is a great deal of relevant study on business English majors in higher vocational colleges. In the context of China's contemporary social development, the advancement of China's productivity and science and technology has made the country more and more receptive to outside influences. In addition to the ongoing development of the economic globalisation process, English has assumed a greater role in China's corporate undertakings. Consequently, corporations have more stringent standards for business English expertise and a growing demand for workers with high-quality business English and professional abilities. In this regard, colleges and universities have gradually increased their focus on the training of business English professionals, and in the current context of school-enterprise cooperation, they have invested a great deal of teaching resources, improved the quality of business English instruction, and are committed to cultivating professional business English talents who meet social requirements [38]. With the rapid growth of business English majors in Chinese institutions, the discipline orientation of business English majors has gradually improved, and the fundamental concerns underlying the development of business English majors have also been resolved. However, research on the teaching paradigm of business English majors in the information era is still in its infancy [39].

Theme Two: Exploration of Blended Teaching Model and Design. The keywords of the research theme mainly include "Internet plus", "blended teaching mode" and "online and offline". The blended teaching mode gives students the opportunity to participate in the course design, implementation and evaluation, and also helps teachers design courses from the perspective of students. Teachers should put people first, change their roles in a timely manner, transform from a single knowledge imparter to a facilitator, service provider and organizer of student learning, and then realize the "student-centred and study-oriented" teaching process [40]. Students can construct their own knowledge system and enhance their abilities in the cognitive, emotional, and action skill domains during this process. Through the practise and in-depth study of the blended teaching mode, teachers can contribute to educational innovation and reform, promote the informatization of teaching in colleges and universities, make the teaching mode more scientific, make classroom

Fig. 5. Clustering map of hot words in blended learning for business English majors in China from 2012 to 2022.

teaching more effective, make students the central focus of the classroom, and enable teachers to conduct instruction with students as the focal point [41]. Internet plus has fostered the growth of blended learning and created favourable conditions for its implementation. With the evolution of society, the ongoing improvement of teaching conditions, and the growing modernization of teaching concepts, the teaching and learning for higher education may potentially take on further novel forms. Teachers in higher education should continuously promote the "learning revolution" from the perspectives of teaching philosophy, teaching content, students' learning habits and methods, platforms and approaches and resource management. They should optimise the resource construction of iterative online and offline teaching platforms, drive the internal motivation of students' independent learning, form a "learning-oriented" teaching paradigm, and further improve students' academic performance.

Theme Three: Application of Internet Teaching Platform. The keywords of the research theme mainly include "Superstar Learning", "Rain Classroom", "Flipped Classroom", "MOOC", and "Production-oriented Approach". The construction of blended learning mode runs through the process of China's blended learning research, and also accounts for a large part of the research. From the beginning of the research, scholars have carried out a discussion on the blended teaching mode [42]. Many eminent academics have also developed blended learning or teaching models, from then on. With the rise of numerous online teaching platforms and tools, studies into the creation of business English curriculum models including their respective qualities have evolved. Based on the "Superstar Learning" platform, Li (2021) implemented the SPOC blended teaching design for the course, *Comprehensive Business English I*, and conducted in-depth exploration from the overall thinking, online learning, offline teaching, teaching evaluation, and other aspects, demonstrating that the blended teaching is applicable to the course, resolving some teaching issues, enhancing teaching quality, and enhancing teaching effectiveness [43]. Wang (2022) devised the "Rain Classroom + We Write/Test" multimodal blended instruction model [44]. Under the guidance of the Production-oriented Approach, the model cultivated comprehensive abilities, such as business English listening, speaking, reading, writing, and translation, and achieved the task output of the comprehensive business English listening and speaking module, reading module, writing module, and translation module through multimodal input, thereby promoting the improvement of students' comprehensive abilities.

5. Findings and discussions

5.1. *Research question 1*: what are the research stages of blended learning for business English majors in China?

The number of publications per year can serve as an insightful indicator of the level of advancement within a specific field during a given timeframe. In the case of our study, which focuses on blended learning for business English majors in China from 2012 to 2022, we have observed a notable increase in research activity. This rise in interest can be delineated into three distinct stages, as elucidated in the subsequent analysis. The delineation of these three stages is based on the insights presented in Fig. 1, which visually illustrates the evolving landscape of research in this field.

5.1.1. *Stage 1: steady start (2012–2017)*

With the official entry of business English majors into the *Undergraduate Specialty Catalogue of General Colleges and Universities* in 2012, research on blended learning for business English majors has gradually emerged. Before 2012, due to the limited network technology, it was difficult to carry out blended teaching. Since 2012, the research on blended learning in business English majors began to improve progressively, until 2017 (18 papers). From the number of literatures published by CNKI, it can be seen that experts and scholars have further improved their research in this field. This may be related to the *Opinions on Strengthening the Construction, Application and Management of Online Open Courses in Colleges and Universities* issued by the Ministry of Education in 2015, which encouraged the implementation of the strategic deployment of the *Outline of Education Planning* and the *Ten-year Development Plan for Education Informatization (2011–2020)*, deepened the reform of higher education teaching, promoted the deep integration of information technology and education teaching, and encouraged colleges and universities to carry out blended learning.

During this stage, research quality was largely foundational. While there was a limited volume of research, it laid the groundwork for subsequent advancements in the field. Researchers were primarily focused on exploring the possibilities of blended learning for business English majors. The impact of research during this period was relatively modest, with limited practical applications. However, it set the stage for more in-depth investigations in the following stages.

5.1.2. *Stage 2: rapid growth (2018–2020)*

Since 2018, with the continuous improvement of the Internet and information technology - the widespread use of mobile phones, computers and multimedia teaching equipment, the gradual change of students' learning environment, and the continuous updating of teachers' teaching concepts - further breakthroughs have been made in the development of blended learning research for business English majors. At the beginning of 2018, the Ministry of Education of the People's Republic of China officially released the *National Standard for the Teaching Quality of Undergraduate and Professional Courses in General Colleges and Universities*. The discipline orientation and professional characteristics of business English are clearer, and the macro-policy interpretation and discipline framework construction are basically completed. The research on micro linguistics ontology with quantitative analysis as the research method will be the entry point and the grip for deepening the application of business English research in the future. In business English language research, quantitative analysis and comprehensive description of words, sentences, texts and mutual translation in business texts should be carried out within the framework of linguistic theory. In the research of business English discourse, genre analysis and systemic functional grammar theory should be taken as the framework to analyse pragmatic strategies, business discourse characteristics, discourse criticism model construction, etc. In the research of business English instruction, attention should be paid to the

analysis of curriculum needs, classroom teaching, textbook evaluation, students' feedback, students' employment and teacher development. Under the influence of the COVID-19, which began at the end of 2019, Chinese universities have utilized online platforms for instruction. Scholars are eager to resolve the issue of how to ensure the quality of online courses. Therefore, the quantity of articles on blended learning research for business English majors dramatically rose in 2020 (76 papers).

Research quality improved substantially during this stage. The rapid growth of blended learning research was driven by advancements in technology, expanded access to digital resources, and evolving teaching methodologies. The impact of research during this period was notable, with increased adoption of blended learning approaches in educational institutions. Studies during this stage contributed to a better understanding of how blended learning can enhance the learning experience for business English majors, resulting in more practical applications and improved teaching practices.

5.1.3. Stage 3: stable development (2021–2022)

Since 2021, China has gradually entered the post-pandemic era, online and offline blended learning practise for business English majors in China has increased, research on blended learning for the business English discipline has launched a brand-new trend of development, and the total number of papers published has stabilised. In the future, blended learning research will have great development prospects and research needs. The efficacy of blended learning, as well as the incorporation and practical application of blended learning model and business English majors, have received progressively more consideration. Its research value and originality are substantially greater than in the past, especially in terms of technology application, empirical study, and model or countermeasure research. Although the number of papers published by relevant academics has gradually decreased from 2021 to 2022, it has essentially stabilised at approximately 70 per year, showing that research on blended learning for business English majors has entered a rather steady phase of development.

Research quality continued to improve during this stage, with a specific emphasis on the practical application of blended learning models and addressing the evolving needs of students. The impact of research during this period extended beyond academia and had direct relevance to the field of business English education. As China transitioned into a post-pandemic era, research in this stage played a crucial role in shaping effective blended learning strategies for business English majors. The research was not only informative but also practical, with direct implications for curriculum design and teaching practices. It contributed to the stability and sustainability of blended learning in this context.

5.2. *Research question 2*: what are the research hotspots and themes of blended learning for business English majors in China?

Blended teaching (135 occurrences), blended teaching mode (58 occurrences), flipped classroom (38 occurrences), blended learning (51 occurrences), SPOC (21 occurrences), business English writing (20 occurrences), MOOC (19 occurrences), teaching design (17 occurrences), Curriculum Ideological and Political (12 occurrences), and Higher Vocational College (11 occurrences) are hot research topics for scholars who study blended learning of business English majors in China. In addition, terms such as "online and offline," "teaching reform," and "Internet plus" are among the top 20 most popular keywords, which is extremely congruent with the Ministry of Education's "student-centred" philosophy and education modernization reform.

From the research theme clusters, research on blended learning of business English majors in China mainly includes three themes, namely, the teaching reform of business English majors, the exploration of blended teaching mode and design, and the application of Internet teaching platform. Among them, the study and exploration of business English majors under the support of new technology and application of business English are the hot themes of current research, while teaching design research, model design based on intelligent platform, learning environment resources and effects are the themes that have flourished with the development of technology.

These identified trends represent a significant shift in pedagogical approaches and research priorities in the realm of blended learning for business English majors in China. It's worth noting that these trends are consistent with global developments in blended learning, where technology-enhanced teaching and student-centred learning have gained traction worldwide. These trends suggest a broader alignment with international practices, signalling a positive impact on business English education in China. The increased focus on technology-supported learning and the development of new teaching models underscore the importance of adaptability and innovation in the business English education landscape. The integration of online and offline components, coupled with the emphasis on teaching reform, reflects the evolving needs of both educators and students in a rapidly changing educational environment. As the world becomes more interconnected, these trends have the potential to enhance the competitiveness of business English graduates in China by equipping them with contemporary skills and knowledge. This shift towards technology-driven, student-centred education is a positive step in preparing business English majors for success in an increasingly globalized and digitally driven business environment.

5.3. *Research question 3*: what are the changes and trends in the study of blended learning for business English majors in China?

From 2012 to 2022, Chinese scholars gradually deepened their research on blended learning for business English majors. The number of published articles increased with the continuous development of business English majors and the continuous promotion of blended learning mode. After reaching the peak in 2020, it gradually declined, but still maintained at a high level. During this period, there was no monopoly of researchers and their publications in the field. This phenomenon reflected that Chinese researchers did not continue to explore and focus on the study of blended learning for business English majors for a long time, and related research institutions also showed the same distribution characteristics.

From the analysis of research institutions, scholars in higher vocational colleges have conducted more in-depth research on blended

learning for business English majors, and the number of papers issued has also occupied a leading position in this field. From the analysis of the knowledge map of co-authors, there is a small number of high-output authors in the research field of blended learning for business English majors in China, and the degree of cooperation between co authors is low. In the future, it is necessary to strengthen the communication and cooperation between authors in the field, promote the cooperation between inter-agency and inter-professional scholars, and expand the depth and breadth of the research. Most of the frequently cited literatures were published after 2019, which indicated that the emergence of the COVID-19 had further expedited Chinese scholars' research and expansion of the blended learning model for business English majors. From the analysis of research frontier trends, "teaching reform", "online and offline", "application of smart platform" are the current research frontier issues in the development of blended learning for business English majors in China.

To foster greater collaboration, researchers could explore interdisciplinary projects, establish joint research initiatives, and encourage international partnerships. Increased collaboration can lead to more comprehensive and impactful research outcomes, further advancing the field of blended learning for business English majors in China. These strategies align with the global trend of increased collaboration in education research, promoting knowledge sharing and innovation across borders.

5.4. Future research suggestions

In general, China's research on blended learning for business English majors has achieved fruitful results under the promotion of China's policies. From the initial focus on macro issues such as blended learning concepts, to the focus on many micro issues such as teaching models, and intelligent platforms, the research has paid more attention to the development of students themselves, focusing on students' personalized and high-quality learning.

In terms of research content, the future research on blended learning for business English majors should focus on the construction of blended learning technology environment, including the optimization and development of blended learning environment by virtual reality, artificial intelligence, and the design of interactive environment between learners and various intelligent learning tools and mobile devices. The research on blended teaching design in business English majors, teaching design, as well as implementation and evaluation are the key issues in the research of blended learning. At present, the relevant design research mainly focuses on the specific design of teachers for a certain course but lacks a more macroscopic theoretical or practical research for the whole programme.

China's study on blended learning for business English majors primarily employs the techniques of constructing theoretical models and conducting blended research, followed by descriptive statistical analysis and qualitative research. According to the presentation of various maps and data, the depth and breadth of research in the field of blended learning for business English majors in China are expanding. However, the research in this field is generally weak, and there are numerous documents that focus on concept definition and feature analysis. Future research should be steadily reinforced in the field of blended learning for business English majors, particularly in practical application, effectiveness analysis, distance education, training and continuing education, and innovation education.

6. Conclusion

Based on 345 CNKI literatures in the field of blended learning for Business English majors in China from 2012 to 2022, this paper systematically combs the time distribution, author cooperation, research institutions, research hotspots, theme clustering and research changes and trends, and draws the following conclusions:

For the research stage, research on blended learning for Business English majors in China from 2012 to 2022 can be divided into Steady Start Stage (2012–2017), Rapid Growth Stage (2018–2020) and Stable Development Stage (2021–2022). Under the context of the pandemic in the past two years, the number of relevant research in China has grown rapidly and steadily. For research hotspots, high-frequency keywords such as blended teaching mode, MOOC, flipped classroom, and SPOC are hot words of current scholars' attention. For theme clustering, the research on blended learning of business English majors in China mainly includes Teaching Reform of Business English Majors, Exploration of Blended Teaching Mode and Design, and Application of Internet Teaching Platform. For the research changes and trends, "teaching reform", "online and offline", "application of smart platform" are the current research frontier issues in the development of blended learning for Business English majors in China.

From 2012 to 2022, research on blended learning for Business English majors in China made significant theoretical and practical advances, focusing mostly on talent cultivation, curriculum system, teaching methods, teaching evaluation, teaching materials and teacher development. With the iterative updating of educational theories, the continuous development of Business English majors, and the continuous expansion of business English practise approaches, business English blended learning researchers should pay more attention to the construction of education and teaching theories, develop relevant research in interdisciplinary fields, promote the establishment of a systematic research framework, and increase the investigation of innovative training of business English teachers. With the advancement of China's education informatization process, extensive and in-depth research has been conducted on blended learning as one of the directions of teaching and learning reform in terms of connotation, function, theoretical basis, intelligent teaching tools, instructional models, quality evaluation system, and teacher quality. At the same time, there are issues that require immediate investigation. In the future, scholars should close the gap in the research of blended learning for Business English majors, consolidate the theoretical research of blended learning, promote the practical application of research on blended learning, improve the outcomes of blended learning, and support the development of Business English major instruction.

Data availability statement

Data included in article/supplementary material/referenced in article.

Additional information

No additional information is available for this paper.

CRediT authorship contribution statement

Adelina Asmawi: Supervision. **Hui Dong:** Supervision, Software, Resources. **Xiaotian Zhang:** Methodology, Conceptualization. **Lixuan Sun:** Software, Resources, Methodology, Investigation, Formal analysis, Data curation, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

[1] L. Sun, A. Asmawi, Research progress and trend of business English writing instruction in China (2002-2021): a bibliometric analysis, World J. Engl. Lang. 12 (6) (2022) 241–254.

[2] H. Wang, Q. Lu, Understanding Philosophies of higher education between Countries in China's Belt and Road initiative: analysis of university Mottos based on Natural language processing technology, Sage Open 12 (4) (2022) 21582440221141867.

[3] X.M. Shi, Y. Zhao, Z.X. Meng, Visual analysis of knowledge map of business English translation studies in China – based on 1324 articles published on CNKI from 1999 to 2019, Journal of Liaoning Normal University (Social Science Edition) (6) (2020) 129–137, https://doi.org/10.16216/j.cnki.lsxbwk.202006129.

[4] W. Bao, M.J. Ding, Research on Business English Education in China for 20 Years: Review and Prospect, Foreign Language World. (05), 2022, p. 50, 55+96.

[5] F.C. Liu, W.Z. Liu, J. Li, Visual Analysis of Blended Learning Research in China in the Past Decade, Communication of Vocational Education (01), 2019, pp. 48–57.

[6] W.Y. He, Z.Y. Z, Review and Prospect of Domestic Hybrid Learning Research (2005-2021) – Visual Analysis Based on VOSviewer, Tribune of Education Culture (05), 2022, pp. 124–135, https://doi.org/10.15958/j.cnki.jywhlt.2022.05.018.

[7] Y.F. Shen, The construction of college English blended learning Assessment model under the guidance of CSE, Frontiers in Educational Research 13 (0) (2022), https://doi.org/10.25236/FER.2022.051313.

[8] L. Huang, Create a blended "golden class" of "business English audio-visual and oral". Teaching of Forestry Region (10) (2020) 101–103.

[9] G.H. Huang, Analysis of business English teaching in higher vocational colleges under the online and offline blended teaching mode, Journal of Heilongjiang Institute of Teacher Development (10) (2022) 59–61.

[10] W.G. Wu, Discussion on the Unique Retrieval Function of CNKI, Computer and Information Technology (06), 2022, pp. 83–86, https://doi.org/10.19414/j.cnki.1005-1228.2022.06.007.

[11] M. Jia, A summary of the research on artistic English teaching - based on CNKI, Science & Technology Vision (9) (2018) 87–88, https://doi.org/10.19694/j.cnki.issn2095-2457.2018.09.041.

[12] W.S. Yi, G.Y. Luo, Research status, hotspots and prospects of innovation and entrepreneurship education in vocational education in China – A bibliometric analysis based on the core journal database of CNKI (2001-2021), Vocational Technology (1) (2023) 1–10, https://doi.org/10.19552/j.cnki.issn1672-0601.2023.01.001.

[13] Q. Wang, L.Y. Tang, Analysis on the Progress of the Research on the Spatial Reconstruction of the Library in Higher Vocational Colleges – Bibliometric and Visual Analysis Based on the Data of CNKI, Media Forum (23), 2022, pp. 115–117.

[14] L. Fan, M. Yun, The past, present and future of machine translation in China: a visualization study based on CNKI literature (1959– 2021), Int. J. Engl. Ling. 12 (6) (2022).

[15] N.E. Sudakova, T.N. Savina, A.R. Masalimova, M.N. Mikhaylovsky, L.G. Karandeeva, S.P. Zhdanov, Online formative assessment in higher education: bibliometric analysis, Educ. Sci. 12 (3) (2022) 209.

[16] Z. Dai, Q. Zhang, X. Zhu, L. Zhao, A comparative study of Chinese and foreign research on the internet of things in education: bibliometric analysis and visualization, IEEE Access 9 (2021) 130127–130140.

[17] J. Feng, Y. Chen, A bibliometric analysis of mobile assisted second language learning, International Journal of Interactive Mobile Technologies 66 (8) (2022).

[18] N. Van Eck, L. Waltman, Software survey: VOSviewer, a computer program for bibliometric mapping, Scientometrics 84 (2) (2010) 523–538.

[19] S.S. Shao, L.F. Wang, Research on the Construction and Verification of the Evaluation Index System of Business English Undergraduate Education Quality, Foreign Language World (05), 2022, pp. 41–49.

[20] L.F. Wang, C. Cui, Implement the Business English Undergraduate Teaching Guide to Promote the Training of Business English Talents, Foreign Language World (03), 2020, pp. 5–11.

[21] L.Y. Zhang, Y.W. Gu, S.F. Wang, B.R. Yang, Research Status, Hot Spots and Trend Analysis of Mixed Teaching, Shanxi Youth (09), 2022, pp. 18–20.

[22] Y.Y. Wang, The hotspot and trend of hybrid teaching research in China in the last 20 Years – visual analysis based on citespace, Ability and Wisdom (16) (2021) 9–11.

[23] J.H. Xiao, Y.R. Sun, Looking Back on the Research of Private Compulsory Education in China since the Reform and Opening up, Journal of Heilongjiang Institute of Teacher Development (01), 2023, pp. 98–102.

[24] L. Sun, A. Asmawi, The effect of presentation-assimilation-discussion (PAD) class model on Chinese undergraduates' business English writing performance, J. Lang. Teach. Res. 14 (1) (2023) 57–69.

[25] K.D. Li, J.H. Zhao, Principle and Application Mode of Blended Learning, E-Education Research (07), 2004, pp. 1–6, https://doi.org/10.13811/j.cnki.eer.2004.07.001.

[26] K.K. He, Looking at the New Development of Educational Technology Theory from Blending Learning (I), E-Education Research (03), 2004, pp. 1–6, https://doi.org/10.13811/j.cnki.eer.2004.03.001.

[27] Y.L. Sun, R. Liu, A summary of research on blended teaching in Chinese universities, Journal of Chongqing Jiaotong University(Social Sciences Edition) (4) (2022) 96–103.

[28] S.G. Wang, Rain classroom: intelligent teaching tool under the background of mobile internet and big data, Mod. Educ. Technol. (5) (2017) 26–32.

[29] M. Qiu, Business English translation teaching innovation in higher vocational colleges based on flipped classroom in the "internet plus" era, Education and Vocation (15) (2016) 94–97, https://doi.org/10.13615/j.cnki.1004-3985.2016.15.029.

[30] P. Liu, The construction of blended teaching mode based on "internet plus" – taking business English course in higher vocational colleges as an example, Journal of Huanggang Polytechnic (6) (2017) 59–63.

[31] L. Chen, The application of blended teaching mode in English classroom teaching in higher vocational colleges, Journal of Hubei Adult Education Institute (4) (2017) 41–44, https://doi.org/10.16019/j.cnki.cn42-1578/g4.2017.04.011.

[32] W.Q. Fan, The application of blended teaching model based on superstar learning pass – A case study of business English intensive reading, Journal of Kaifeng Vocational College of Culture & Art (10) (2017) 64–65.

[33] X.A. Wu, Exploration of Multimodal Teaching Mode Based on Superstar Learning, The Journal of Shandong Agriculture and Engineering University (06), 2020, pp. 126–127, https://doi.org/10.15948/j.cnki.37-1500/s.2020.06.049.

[34] X.R. Chen, An analysis of the blended teaching model based on the CBI teaching concept – taking "business English" course teaching as an example, China Educational Technology (12) (2019) 129–134.

[35] G.Q. Jiang, P.F. He, Design and practice of blended teaching mode of higher vocational courses under 1+X certificate system, Journal of Vocational Education (4) (2021) 69–74.

[36] X.F. Zhang, H. Xu, Review and prospect of rural tourism research in China (2005-2020) – visual analysis based on VOSviewer, Forestry Economics (1) (2021) 83–96, https://doi.org/10.13843/j.cnki.lyjj.20210329.001.

[37] Y.P. Zhong, Research progress and trend of business English curriculum in China (2000-2019) – based on bibliometric analysis, J. Southwest Jiaot. Univ. (5) (2021) 135–148.

[38] K. Yang, The training path of business English talents under the background of school-enterprise cooperation, Human Resource Development (21) (2022) 74–75, https://doi.org/10.19424/j.cnki.41-1372/d.2022.21.022.

[39] W.Y. Chen, Research on Innovation and Strategy of Business English Teaching Paradigm from the Perspective of Informatization, Journal of Changchun University (08), 2018, pp. 82–86.

[40] Y. Lai, L. Han, Research on the Blended Teaching Mode in Colleges and Universities under the Background of "Internet plus". Heilongjiang Animal Science and Veterinary Medicine (13) (2019) 164–169, https://doi.org/10.13881/j.cnki.hljxmsy.2018.12.0030.

[41] L.L. Chen, A study on the function of establishing morality and cultivating people in the course of business English in higher vocational colleges, Journal of Hubei Open Vocational College (24) (2022) 174–176.

[42] S.Q. Yu, Q.L. Lu, S.J. Chen, Blended Teaching in the Network Environment – A New Teaching Model, China University Teaching (10), 2005, pp. 50–56.

[43] S.Y. Li, Blended teaching design and practice based on fanya Platform+SPOC – taking integrated business English course as an example, Journal of Higher Education (33) (2021) 113–116, https://doi.org/10.19980/j.CN23-1593/G4.2021.33.029.

[44] Q.W. Wang, The design of comprehensive business English course mode under multimodal blended teaching mode, Teacher (16) (2022) 51–53.