

Research Focuses and Trends in Second Language Phonetics in China over the Past Decade: A Visualization Analysis Based on CiteSpace

Jing Guo^{1,a}, Ran Wei^{1,b,*}

¹School of Foreign Studies, Jiangsu Normal University, Xuzhou, China

^a1792197354@qq.com, ^bweiran@jsnu.edu.cn

*Corresponding author

Abstract: This study employs CiteSpace software to conduct a visual analysis of 150 journal articles on second language (L2) phonetics sourced from the CNKI database, covering the period from 2014 to 2024. Our findings indicate a steady development in L2 phonetics research in China over the past decade, significantly influenced by national language teaching policies and practices. Notably, scholars, particularly those centered around Chen Hua, demonstrate frequent collaboration and publication. The research themes can be categorized into six main areas: comprehensibility, motivation, task type, negative transfer, output, and English. Furthermore, recent studies on speech production show increased relevance, with growing diversity in research levels and subjects, alongside a rising proportion of empirical studies, indicating a trend towards interdisciplinary development.

Keywords: Second language phonetics; Research focus; Research trend; Visualization analysis; CiteSpace

1. Introduction

Phonetics, the study of the sounds of language, serves as the material foundation of linguistic meaning. Each language possesses a distinct phonetic system characterized by specific features. Phonetics plays a crucial role in English language acquisition; however, it is often overlooked in the English learning processes of Chinese learners. Despite phonetic instruction being a fundamental component of English teaching, it has received insufficient attention due to prevailing low teaching standards in China (Yin, 2009)^[1].

Research on second language phonetics in China dates back to the last century and has produced a wealth of findings. Over time, scholars have expanded their research fields, enhancing methodological rigor and broadening research content. However, challenges persist, including a lack of diversity in research subjects and a need for more comprehensive methodological approaches (Sun, 2020)^[2]. Although significant advances have been made in understanding English phonetic acquisition in China over the past decade, a thematic analysis of the current research landscape is lacking (Gong & Zhou, 2024)^[3]. While several scholars have conducted literature reviews (Sun, 2020; Gong & Zhou, 2024; Zhi et al., 2017)^[2-4], traditional narrative reviews are often limited in their verbal expression and lack visual analysis grounded in knowledge graphs. CiteSpace enables visual analysis, making research findings more intuitive, systematic, and expressive. This paper utilizes CiteSpace to compile and visually analyze Chinese literature on L2 phonetics from the past decade, aiming to explore the research landscape from the perspectives of research objects, methodologies, focuses, and trends.

2. Research Design

2.1. Research Problems

This study primarily addresses the following questions:

- What are the research focuses of second language phonetics in China over the past decade, as illustrated by keyword co-occurrence and clustering graphs?
- What are the developmental trends of L2 phonetics research in China during the same period, as

depicted in author collaboration networks and keyword burst graphs?

2.2. Data Source

The data for this study were obtained from core journals in the CNKI database. We initiated an advanced search, inputting keywords such as “second language phonetics”, “phonological acquisition”, “phonetic transfer”, “prosodic features”, and “Chinese EFL learners”. We filtered for academic journal articles from reputable sources, including “PKU” and “CSSCI”. The literature retrieval spanned from 2014 to 2024, resulting in a total of 855 documents. We meticulously selected 150 high-quality papers pertinent to our study topic. The selected documents were saved in TXT format, organized into designated folders for CiteSpace analysis, and prepared for visual analysis.

2.3. Research Tools

CiteSpace is a bibliometric software tool that employs quantitative methods to analyze published research, offering a systematic, transparent, and repeatable review process that mitigates the subjective biases inherent in narrative literature reviews. It supports various bibliometric analyses, including institutional co-citation, author collaboration networks, and topic co-occurrence visualization. CiteSpace helps researchers visualize and analyze the structure, dynamic patterns, and trends within a field, enabling an intuitive understanding of its evolution and foundational literature (Guan & Guo, 2021)^[5]. Thus, utilizing CiteSpace, this paper aims to provide a comprehensive overview of the research history in second language phonetics, identifying structural patterns, dynamic evolution, and emerging themes, thereby offering valuable references for future scholars in this domain.

3. Research Process and Analysis

Initially, keywords were established as the index, with a literature retrieval timeframe set from 2014 to 2024 and a time slice of one year, utilizing the g-dex node selector with $k = 25$ for selection. Subsequently, the path-finding network algorithm was applied for visual analysis, yielding a total of 216 nodes and 237 networks. This analysis revealed a comprehensive retrieval of 216 keywords across the selected 150 articles, resulting in 237 connections among these keywords.

3.1. Research Focus

3.1.1. Keyword Co-occurrence Graph

Keywords serve as the core summary of academic papers. The keyword analysis of this paper is reflected in Figure 1. Analyzing the keywords allows us to discern the thematic focus of the literature. The keyword co-occurrence graph illustrates that high-frequency keywords in Chinese L2 phonetics research over the past decade include “English phonetics”, “second language acquisition”, “Chinese dialect”, “fluency”, “second language proficiency”, “intelligibility”, “negative transfer”, “complexity”, and “accuracy”. Notably, “English phonetics” and “second language acquisition” each appeared six times, while “Chinese dialect”, “fluency”, “second language proficiency”, and “intelligibility” appeared five times. “Negative transfer”, “complexity”, and “accuracy” were mentioned four times.

Based on keyword frequency, betweenness centrality, and research direction, important keywords can be categorized into three themes: “negative transfer”, “intelligibility”, and “speech production”.

The negative transfer category includes keywords such as “English phonetics”, “Chinese dialects”, “phonetic transfer”, and “phonetic teaching”. This theme primarily explores the negative impacts of the mother tongue on English phonetics, focusing on middle and high school students, and aims to summarize effective phonetic teaching strategies with practical implications.

The intelligibility category encompasses keywords like “English prosodic features” and “speech intelligibility”. Research within this theme compares the prosodic characteristics and speech intelligibility of Chinese English learners, including both college and junior high school students, with those of native English speakers. This work contributes to theoretical frameworks in second language pronunciation acquisition and pedagogy.

The speech production category includes keywords such as “fluency”, “accuracy”, “complexity”, “language representation”, and “second language proficiency”. Studies in this area employ various task types to analyze oral production among English majors and non-English majors from multiple

intelligibility”, and “standard phonetics”. Several studies have demonstrated considerable differences in the prosodic features of Chinese English learners compared to native speakers, with learner prosody correlating with the age of acquisition. Notably, learners who begin studying English between the ages of 6 and 10 do not exhibit significant advantages in prosody, whereas those who start later tend to display prosodic features more akin to native speakers. This finding underscores the importance of a conducive foreign language environment in enhancing second language clarity and intelligibility. Nonetheless, existing research often neglects factors such as learners’ learning styles and individual differences, indicating a need for deeper exploration in these areas.

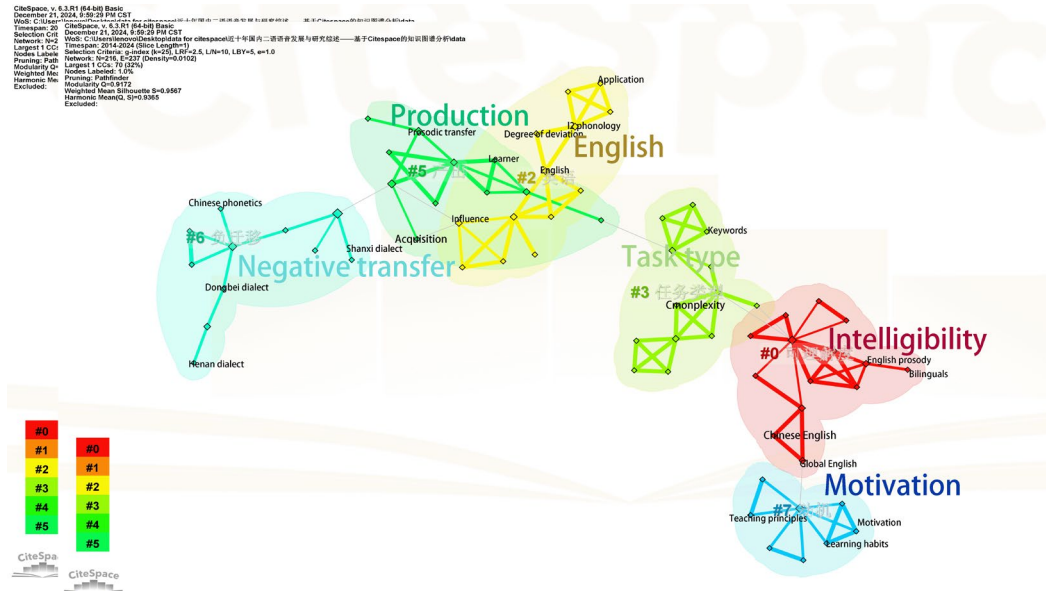


Figure 2: Keyword clustering graph.

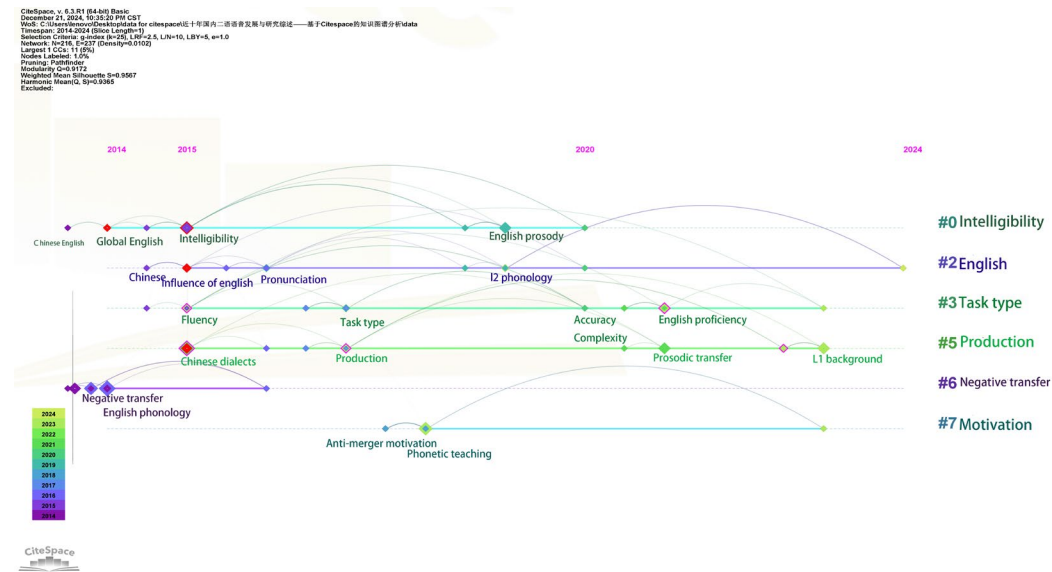


Figure 3: Keyword clustering timeline graph.

3.2. Research Trends

3.2.1. Keyword Burst Graph

Following the generation of the keyword co-occurrence graph, we set $Y = 0.35$ to identify 15 burst keywords, as depicted in Figure 4. These keywords can be categorized into three distinct stages based on their emergence over time. The first stage, spanning 2014 to 2016, includes burst keywords such as “English phonetics”, “negative transfer”, “accent”, “Chinese dialect”, “influence”, and “imitation reading”. The second stage, from 2018 to 2020, features keywords like “achievement level”,

“complexity”, “accuracy”, “fluency”, and “spoken second language”. The third stage, covering 2020 to 2024, reveals key terms such as “perception”, “English proficiency”, “task repetition”, and “oral language development”.

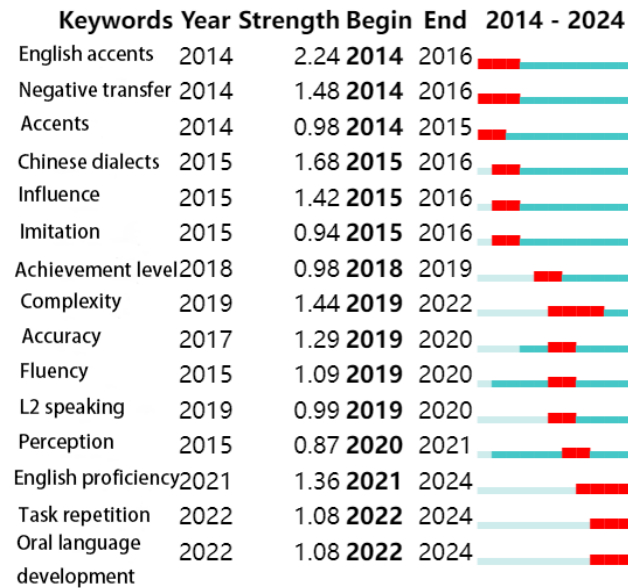


Figure 4: Keyword burst graph.

Most research in the initial phase has focused on the differences between learners' native languages and English, which significantly impact second language acquisition. Some studies during this period employed comparative analyses to examine learners' perceptions and productions of English in relation to native speakers, aiming to identify acquisition biases and patterns among learners from diverse backgrounds and proficiency levels. The subjects of these studies predominantly included middle school and college students^[6-10]. For instance, Wang et al. (2014)^[11] in their work, *English Pronunciation Instruction and Research: A Sociopolitical Perspective*, investigated influential factors such as segmental and suprasegmental features in comparing English and Chinese, with the goal of enhancing students' phonetic accuracy and competence. Their findings suggest that teachers can leverage modern technology and voice software to aid students' learning and improve instructional methods.

Other studies examined various dialects, including the Northeast dialect, Shanxi dialect, Northern Shaanxi dialect, Ningxia dialect, and Tibetan dialect, along with the teaching environment, to explore their effects on students' second language phonetics. These investigations compared the English phonetics of Chinese learners influenced by these dialects with that of native English speakers, summarizing phonetic discrepancies and probing the causes of negative transfer to propose potential solutions. Additionally, some research aimed to identify instances of positive transfer from learners' native languages to English pronunciation. The authors underscore the importance of utilizing learners' linguistic advantages in transitioning to English phonetics, emphasizing the need for practice to mitigate the influences of dialects and native language backgrounds on English pronunciation, while also promoting the development of effective learning habits^[12].

Experimental research methods have also been employed to explore the impacts of various teaching techniques on learners' outcomes^[13-14]. For example, Ou (2014)^[14] in *Tongue Twisters to Untwist the Knot of Students' Pronunciation Problems: On College English Pronunciation Teaching Reform* utilized experimental designs, establishing experimental and control groups to assess the effectiveness of tongue twister training on students' pronunciation. The results indicated that this approach positively influenced pronunciation correction and suggested the adoption of innovative teaching methods to enhance students' perceived progress. Following 2016, numerous scholars (e.g., Shao & Tian, 2023; Chen et al., 2021; Xue et al., 2019)^[15-17] continued to employ empirical research to investigate students' L2 phonological levels, though the intensity of such investigations was not as pronounced as in the earlier phase.

In the second phase, researchers primarily focused on the normality of spoken second language production among English learners. This research can be categorized into three main types. The first examines the influence of learners' backgrounds, oral tasks, and teaching environments on oral English accuracy from a second language acquisition perspective, specifically looking at how factors such as task

type, difficulty, and complexity affect language expression accuracy among Chinese students.^[18] The second type investigates the relationships among oral accuracy, fluency, and complexity from a language development viewpoint.^[19-21] The third type explores the observational dimensions of oral English accuracy and effective measurement indicators, subsequently analyzing the relationship between accuracy, language proficiency, and oral performance.^[22-25] For example, Jiang and Dai's research (2018)^[24], *An Analysis of the Correlation between Oral Accuracy Measurement and Oral Performance*, utilized induced tasks to collect 61 oral texts from Chinese English majors, revealing that oral accuracy can predict English proficiency to a degree, thereby informing instructional strategies aimed at improving language accuracy. In a subsequent study, Jiang and Dai (2019)^[25] published *A Study of Dimensions and Measurement of Oral Fluency of Chinese English Majors*, further demonstrating the predictive relationship between oral fluency and English scores. Other scholars, such as Yu and Dai (2019)^[21], also explored the multi-dimensional factors influencing learners' oral English accuracy, complexity, and fluency, yielding valuable insights for second language pedagogy. Similar themes persisted into the third phase of research (Wang, 2021)^[26].

In the third phase, some scholars continued to explore comparative analyses of English and Chinese differences, such as Shao and Tian (2023)^[15] on dialect transfer in English monophthongs among Mandarin college students from Hebei and Shandong. Scholars also revisited topics surrounding spoken language output, including accuracy, complexity, and fluency, as exemplified by Yu et al.(2021)^[27] in *Exploring Developmental Patterns of Oral Complexity: Based on Multilevel Modelling*. Additionally, researchers like Kang (2023)^[30] focused on the characteristics of second language learners' speech, analyzing issues such as irregular pauses in oral production and offering relevant pedagogical implications.^[28-30]

Most studies during this period employed diverse task types and empirical research methods to investigate the interplay between learners' oral production and their internal language development, leading to significant implications for teaching practices.^[31-34] For example, Zhang and Bao (2021)^[33] in *EFL Learners' N-Gram and Keyword Extraction in Oral Retelling* utilized a mixed-factor design to analyze N-gram and keyword extraction in oral retelling tasks among 112 English majors. Their findings indicated that higher-level learners outperformed their lower-level counterparts, although increased task difficulty led to a significant decline in the number of extracted N-grams and keywords. This underscores the necessity for learners to focus on the quality of language input and consciously emulate authentic language expressions to enhance their production abilities. Zhang and Zhou (2022)^[34] in their study, *The Effects of Task Repetition on L2 Oral Production under Time Pressure*, evaluated how different types of task repetition affected spoken output among 63 non-English college students. Results indicated that oral fluency significantly improved in the complete task repetition group, while the process repetition group exhibited less engagement and a higher incidence of erroneous expressions. This study provides insights for optimizing traditional task repetition training and offers valuable references for oral instruction. However, the variability in participants' working memory and the limited sample size highlight areas requiring further investigation in subsequent research.

3.2.2. Author Cooperation Network Graph

To create a visualization of author collaborations, we returned to the CiteSpace home page and maintained the other parameters unchanged. This resulted in an author cooperation network graph and corresponding data table, yielding a total of 209 nodes and 138 connections. According to the statistics, there were 209 co-authors and individual authors, with 138 collaborative links established among them. The author cooperation network graph and the corresponding data table are illustrated in Figure 5 and Table 1. The author cooperation network is defined by these collaborative relationships, with frequency determined by the number of published papers. The cooperative network graph illustrates a scattered and multi-modal collaboration landscape in the field of Second Language Acquisition over the past decade.

Within this network, 11 authors exhibited close collaboration and high publication frequency: Chen Hua, Cheng Xin, Wang Yao, Li Jingna, Yuan Lan, Cao Ning, Pan Pan, Nan Bo, Zhang Yan, Cao Yating, and Ma Dongmei, forming a collaboration network centered around Chen Hua. Notably, Chen Hua occupies the central position in the network graph, reflecting her extensive publication record and significant influence within the cooperative framework. From 2014 to 2024, she published nine papers within this collaboration network and maintained cooperative relationships with all but one of the other authors, suggesting a strong collaborative bond.

Li Jingna emerges as the next most influential scholar, with five publications, collaborating with both Chen Hua and Wang Yao, the latter of whom has published three papers and collaborated with Li Jingna.

Cao Yating has contributed two papers and collaborated with Chen Hua and Dongmei Ma. Both Cheng Xin and Zhang Yan have published two papers, collaborating with Chen Hua. Pan Pan and Nan Bo also engaged in collaborative work with Chen Hua, while Cao Ning and Yuan Lan each published one paper and collaborated with her.

Based on the number of publications and the timing of their first papers within the research scope, Chen Hua and Li Jingna are identified as continuously active scholars, while the remaining nine authors are characterized as late entrants. Over the past decade, Chen has conducted extensive research across various topics, including pauses, competence assessment, prosodic features, stress, intelligibility, language background, and language networks, significantly contributing to the field of second language development. Li Jingna has collaborated with Chen Hua and Wang Yao on diverse topics such as intonation, accent perception, pronunciation assessment, and language experience perception. Most of the remaining authors have published one or two papers in collaboration with Chen Hua or other authors, thereby enriching the research landscape of second language development. Ultimately, the collaborative network among these eleven authors facilitates the integration of research resources, thereby promoting the advancement and enhancement of the field.

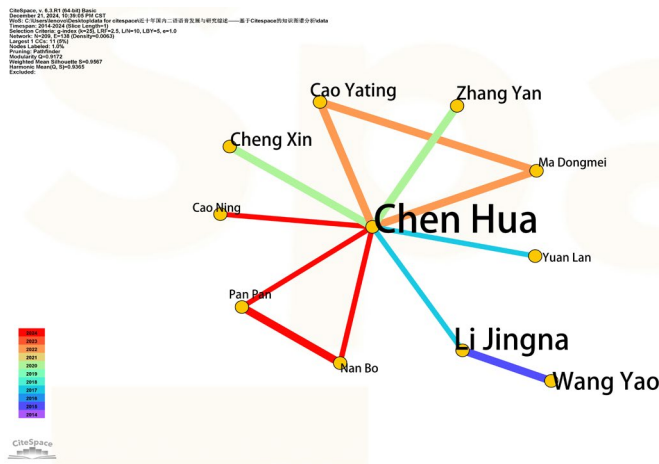


Figure 5: Author cooperation network graph.

Table 1: Co-authors' journal articles.

Co-authors	Published Time	Journal Articles
Cao Ning, Chen Hua	2024	The contribution of phonological loop to word learning: A comparison of Chinese English learners at different proficiency levels
Pan Pan, Nan Bo, Chen Hua	2024	A book review of second language pronunciation: Bridging the gap between research and teaching
Cao Yating, Chen Hua	2023	Effects of listeners' L1 and English proficiency on the intelligibility of Chinese students' accented English speech
Chen Hua, Cao Yating, Ma Dongmei	2022	MCAESCL—A multimodal corpus of academic English speech by Chinese learners
Chen Hua, Cheng Xin	2020	The perception of unnatural pauses in L2 English read speech
Chen Hua, Cheng Xin, Zhang Yan	2020	Rethinking holistic scoring and analytic scoring—Rating scale on L2 pronunciation competence
Li Jingna, Wang Yao	2019	A study of the influences of articulation and intonation on degrees of L2 pronunciation deviation
Li Jingna, Chen Hua	2019	Intonation knowledge mastery by Chinese English teachers: A survey among raters of large-scale oral tests in China
Chen Hua, Li Jingna	2018	Reflections on the current situation of phonological assessment: A survey among raters of standardized oral tests in China
Zhang Yan, Chen Hua	2018	The contribution of prosody to interaction—Taking L2 lists as an example

Yuan Lan, Chen Hua	2017	An exploration of repetition strategies in English majors' spontaneous speech based on speech corpus
Li Jingna, Wang Yao	2015	A contrastive study of perception and comprehension of Chinese EFL learners' accented speech by English and Chinese native speakers
Li Jingna, Wang Yao	2015	A study on the influences of listeners' linguistic experience on degrees of perceived foreign accent in English

4. Results and Discussion

Utilizing CiteSpace, this study analyzes 150 articles related to “Second Language Phonetics” published in high-quality journals on the CNKI platform from 2014 to 2024. The research provides a visual analysis of the development context, keyword usage, and author collaboration networks, allowing for a comprehensive examination of research focuses and trends.

Keyword co-occurrence and cluster analysis reveal that the topics of Second Language Phonetics research in China over the past decade can be categorized into six main areas: “intelligibility”, “motivation”, “task type”, “negative transfer”, “production”, and “English”. Based on the frequency and significance of these keywords, the research focuses can be further distilled into three primary categories: “negative transfer”, “intelligibility”, and “language production”. Notably, “language production” has emerged as the most prominent research topic, investigating the relationship between learners' oral production and their internal language development.

The analysis of keyword burst characteristics and the main author collaboration network indicates two significant findings: a) Authors tend to collaborate predominantly with Chen Hua, a central figure in the field; and b) The development trends of Chinese L2 phonetic research over the past decade can be delineated into three stages. In the first stage (2014-2016), the core keyword was “negative transfer”, with research primarily focused on analyzing the differences between Chinese learners' English phonetic acquisition and that of native speakers through comparative analysis. This stage also examined the influence of learners' native language backgrounds on their English phonetics, identifying reasons for negative transfer and offering insights for English language teaching. The second stage (2018-2020) centered on “intelligibility”, focusing on the normality of spoken second language production among English learners. Research during this period analyzed the underlying reasons for observed phenomena and provided pedagogical implications. The third stage (2020-2024) shifted to “language production”, employing empirical research methods to explore the relationship between learners' spoken language output and their internal language development, ultimately yielding insights for teaching practices.

Analysis of research trends indicates that while the field of second language phonetics has varied research topics across different periods, it consistently returns to teaching-related themes, influenced by language teaching policies and practices in China. Furthermore, core research themes from the first two stages persist into the later stage, indicating a degree of predictability in future inquiries. Consequently, the research focus on language output is likely to demonstrate a stable developmental trajectory moving forward.

Acknowledgements

This work was supported by Humanities and Social Science Project of Ministry of Education of the People's Republic of China (grant number 24YJC740071) and Postgraduate Research&Practice Innovation Program of Jiangsu Province (grant number 2024XKT1751).

References

- [1] Yi Y.D. (2009) *On higher vocational English phonetic teaching*. *Journal of Tianjin Vocational Institutes*, 4, 77-78.
- [2] Sun Y.L. (2020) *A review of the research status of second language phonetics acquisition home and abroad*. *English on Campus*, 51, 234-235.
- [3] Gong H., Zhou W.J. (2024) *A review of the research on L2 English phonetic acquisition in China over the past decade (2013-2022)*. *English Square*, 16, 49-53.
- [4] Zhi N., Jia Y., Li A.J. (2016) *Overview of research on second language phonetics acquisition*. *Nankai Linguistics*, 2, 62-71.

- [5] Guan H.G., Guo X.X. (2021)Research on the new trend of brand experience--based on the perspective of literature measurement. *Journal of Commercial Economics*, 2, 54-58.
- [6] Ma D.M. (2014)Pausing patterns in the expository oral production by Chinese English majors and their correlations with the holistic oral production scores. *Foreign Languages and Their Teaching*3, 42-48.
- [7] Li Z. (2014)Visualization of pronunciation testing and evaluation. *Foreign Languages and Literature*, 6, 98-103.
- [8] Bi H.Y.(2014)College English pronunciation teaching from the perspective of English pronunciation self-concept.*Education Exploration*, 6, 62-63.
- [9] Meng Q.F. (2016)Negative transfer of Chinese pronunciation to English oral communication. *Language Planning*, 27, 21-22.
- [10] Chen X.X., Guo X.R. (2017) Effects of L2 proficiency on Chinese EFL learners' production of English lexical stress. *Journal of Hunan University(Social Sciences)*, 5, 76-83.
- [11] Wang X.H., Wang S.E., Cai H. (2014) English pronunciation instruction and research: A sociopolitical perspective.*Journal of Xinjiang University(Philosophy and Social Sciences)*, 3, 148-151.
- [12] Wen L., Zhou Y.Z. (2014)An analysis of the limiting factors and countermeasures affecting the English pronunciation level of students in mountainous areas of Ningxia. *Journal of Inner Mongolia Normal University(Educational Science Edition)*, 10, 117-119.
- [13] Wang X.M., Gao X. (2015)Differences in English pronunciation concepts between teachers and students in Chinese universities.*Education Review*, 10, 125-129.
- [14] Ou Y. (2014)Tongue twisters to untwist the knot of students' pronunciation problems: on college English pronunciation teaching reform.*Foreign Languages in China*, 4, 61-68.
- [15] Shao Y.M., Tian M. (2023)Dialect transfer in English monophthongs' learning based on the college students from Hebei and Shandong Mandarin area .*Technology Enhanced Foreign Language Education*, 1, 66-75+114.
- [16] Chen X.X., Zhang X.L., Ma J.Z. (2021)Lexical stress production by Cantonese and Changsha dialect speaking learners of English.*Journal of Foreign Languages*, 3, 38-48.
- [17] Xue J., Nie Y.R., Li B.B. (2019)Prosodic features of English production and the AoA effect. *Foreign Language Research*, 6, 79-86.
- [18] Qi Y., Wu Y.D. (2020)The effects of planning condition and task structure on the use of formulaic sequences in Chinese EFL learners' oral performance. *Foreign Languages Bimonthly*, 4, 1-9+160.
- [19] Xing J.X. (2019)The effects of task complexity on non-English majors' oral performance. *Foreign Languages Research*, 5, 64-69.
- [20] Li C., Sui M.C. (2020) Effects of task type on complexity, accuracy and fluency in English learners' oral production: A longitudinal study. *Journal of Xi'an International Studies University*, 3, 47-52.
- [21] Yu H.J., Dai W.D. (2019)A study of complexity and accuracy of oral language development.*Foreign Languages and Their Teaching*, 2, 100-110+150.
- [22] Chen H., Cheng X., Zhang Y. (2020)Rethinking holistic scoring and analytic scoring—rating scale on L2 pronunciation competence technology. *Enhanced Foreign Language Education*, 5, 58-64+9.
- [23] Hu M., Zhu Y.Q. (2019)An empirical study of Chinese college students' phonological awareness in English from the perspectives of test reliability and validity. *Journal of Xi'an International Studies University*, 1, 77-82.
- [24] Jiang C.G., Dai J. (2018)An analysis of the correlation between oral accuracy measurement and Oral performance.*Foreign Language Learning Theory and Practice*2, 37-43.
- [25] Jiang C.G., Dai J. (2019)A study of dimensions and measurement of oral fluency of Chinese English majors.*Journal of Xi'an International Studies University*, 2, 49-54.
- [26] Wang H. (2021)Exploring the multidimensional nature of lexical Sophistication: the case of Chinese English learners' oral discussion. *Foreign Language Teaching and Research*, 5, 745-756+800-801.
- [27] Yu H.J., Peng H.Y., Zhou S.Y. (2021)Exploring developmental patterns of oral complexity:based on multilevel modelling. *Modern Foreign Languages*, 1, 90-101.
- [28] Cheng X., Chen H. (2020)The perception of unnatural pauses in L2 English read speech .*Foreign Languages and Their Teaching*, 1, 81-90+148-149.
- [29] Liu D. (2024)The Interactional prosodic competence of Chinese learners of English in expressing disagreement. *Journal of Xi'an International Studies University*, 2, 21-25.
- [30] Kang S. (2023)A study of irregular pauses in oral production by English language learners. *Shandong Foreign Language Teaching*, 5, 69-79.
- [31] Yu Y., Liao Y.Y., Lin Y.X. (2022)A study on discourse rhythm patterns in task-based speech by Chinese EFL learners. *Foreign Languages and Their Teaching*, 2, 79-90+147-148.
- [32] Han Y.W., Xiao W. (2023) Effects of productive vocabulary knowledge and working memory capacity on the EFL Learners' oral fluency. *Foreign Languages Bimonthly*, 6, 87-95+156.

- [33] Zhang L., Bao G. (2021) *EFL learners' N-Gram and keyword extraction in oral retelling*. *Foreign Languages and Literature*, 4, 150-160.
- [34] Zhang M., Zhou D.D. (2022) *The effects of task repetition on L2 oral production under time pressure*. *Modern Foreign Languages*, 4, 488-499.