

Research on Extraction of High Frequency Chinese Phrases in Catering and Development of Textbooks: A Case Study of Hotpot Ordering Scenarios

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Abstract: With the acceleration of globalization, the demand for teaching Chinese as a second language (CSL) is increasing. The catering scene, especially hotpot ordering, has become an important area of CSL teaching due to its high interactivity and cultural embedding. This study takes the hot pot ordering scene as an example, and extracts about 27 high-frequency phrases, such as "huan ying guang lin (Welcome)", "qing wen ji wei (How many persons do you have, please?)", "yuan yang guo (Double-flavor hot pot)" from online resources and academic papers through word frequency analysis and scene simulation methods, covering greetings, pot bottom selection, dish ordering and checkout. Based on task-based teaching and immersive strategies, develop a textbook prototype that emphasizes predictability, scaffolding support, and cross-cultural comparison to help non-native learners quickly master practical expressions. The results show that this method can effectively improve learning efficiency, but it needs to consider the differences in learners' backgrounds. In the future, it can be expanded to other catering scenarios to enrich CSL resources.

Keywords: Catering Chinese; High frequency phrase; Hot pot ordering; Textbook development; Task-based teaching

1. Introduction

1.1 Research Background

In the context of "The Belt and Road Initiative" [1] and global cultural exchanges, the number of Chinese learners has soared. According to statistics, 86 countries have incorporated Chinese into their national education systems, and the cumulative number of international Chinese learners and users has exceeded 200 million [2]. With the acceleration of globalization, the demand for learning Chinese is becoming increasingly strong. Language, as a communication tool, is closely connected to all aspects of social life. As a culinary powerhouse, China attracts people from home and abroad with its rich cuisine, including eight major cuisines. Therefore, it is particularly necessary to combine food with Chinese language learning. Many learners are particularly interested in daily life scenarios such as dining. As a representative form of Chinese cuisine, hotpot not only involves rich vocabulary, but also incorporates social etiquette and regional culture, such as the spicy flavor of Chongqing hotpot or the light style of Beijing clear soup. These elements make hotpot ordering a vivid example of teaching Chinese as a second language (CSL). However, most existing textbooks are designed for

generalization and lack high-frequency language extraction and system development for specific scenarios. This study aims to fill this gap by extracting language and developing textbooks to enhance learners' practical application abilities.

1.2 Research Significance

High frequency phrases can reveal the usage patterns of a certain language and help learners prioritize mastering core expressions. Textbook development can transform these phrases into actionable tasks, promoting the transition from input to output. This study provides reference for CSL teachers and contributes resources to cross-cultural training in the catering industry. The potential controversy lies in the regional variation of language usage (such as Northern vs. Southern expressions). This study is based on standard Mandarin, while common language variants are also taken into account.

1.3 Research Issues

To extract high-frequency phrases for ordering hotpot and develop a prototype for teaching materials. Question: (1) Which phrases are most frequently used in hotpot ordering scenarios? (2) How to design CSL textbooks based on these phrases? (3) How to evaluate the effectiveness of textbooks?

2. Literatures Review

2.1 Evolution of CSL Teaching Methods

Reading CSL teaching research literature [3-5], it can be found that typical methods include task-based, situational, scaffolding, and immersive approaches. Task based methods emphasize on the goal-oriented activities, such as simulating ordering conversations; Scenario based creation of real-life contexts, such as restaurant role-playing; Scaffolding provides progressive support to avoid frustration for beginners; Immersive direct use of the target language, providing a large amount of input. However, these methods are widely applied in comprehensive courses and oral skills, but less in the fields of reading and pronunciation.

2.2 Principles of Textbook Publication

CSL textbook development emphasizes inheriting tradition (such as localization) [6], developing innovation (such as digitization) [7], and adapting to national conditions [8]. Common misconceptions include language mixing and activity complexity, and countermeasures include immersive input and predictable materials. The oral course framework prioritizes "Language first, then text", using pinyin as an aid to avoid early interference from Chinese characters. Cross cultural comparisons highlight differences between Chinese and English, such as pronunciation and cultural norms.

2.3 Research on Phrases in Catering Scenarios

Existing research mostly focuses on general catering vocabulary, such as "cai dan(menu)", "dian cai (ordering)", and "fu wu yuan(waiter)" [9]. The specific phrases used in hotpot, including the type of pot base, such as "ma la guo(spicy pot)" and "qing tang guo(clear soup pot)", and dipping sauce, such as "zhi ma you (sesame oil)" and "suan mo (minced garlic)", do not involve teaching, making it difficult for CSL learners to meet diverse learning needs. Online comments and high-frequency word

extraction show that tourism related catering language should emphasize practicality and cultural embedding, rather than just teaching generic words.

3. Methods

3.1 Data Collection

Research suggests that robust data collection in linguistic studies, particularly for extracting high-frequency phrases in CSL contexts, relies on diverse sources like authentic texts, video transcriptions, and surveys to ensure ecological validity and comprehensive coverage. In the context of developing CSL materials focused on high-frequency phrases in hotpot ordering scenarios, expanding the data collection process draws from established linguistic methodologies to ensure reliability, depth, and applicability. This involves a multi-faceted approach integrating corpus linguistics, qualitative data gathering, and authentic source utilization, as evidenced by various studies on vocabulary acquisition and conversational analysis. The goal is to amass a representative corpus that captures interactive, culture-embedded language use, enabling accurate extraction of phrases like “qing wen ji wei” (how many people) or “ma la guo” (spicy hotpot) for textbook development.

The process begins with defining the scope: targeting dialogues in firepot (hotpot) point meal (ordering) contexts, which embody social etiquette, regional flavors (e.g., Chongqing's mala intensity versus Beijing's mild clear broth), and practical vocabulary. Data collection emphasizes naturalistic and semi-authentic sources to mirror real-life CSL challenges, where learners navigate menus, preferences, and interactions. Ethical protocols include anonymizing participants in any recorded data, obtaining informed consent, and adhering to data protection standards, particularly for online-sourced materials.

Primary sources encompass online videos and scripts, drawn from educational platforms (e.g., YouTube channels like “Mandarin Corner”, “Yoyo Chinese” featuring restaurant role-plays) and user-generated content on Bilibili (search queries: “huo guo dian cai” or “real hotpot dining conversation”).

3.2 High Frequency Phrase Extraction Tool

In linguistic research, high-frequency phrase extraction usually involves word frequency statistics, stop word removal, and semantic analysis to ensure that the extracted phrases are representative and practical. In the paper, we used the Stanford University natural language processing tool software CoreNLP [10] for statistics, select language with a frequency greater than 5%. And combined with literature review methods and manual screening, remove meaningless words such as stop words (such as “de”, “le”, etc.).

3.3 Research and Publication of Textbooks

Existing research suggests that the development of teaching Chinese as a foreign language should be based on learner needs analysis, first identifying the target audience (such as primary CSL learners) and specific contexts (such as hot pot ordering scenarios), and highlighting the principles of task-oriented teaching and cultural integration. The core guiding principles cover the organic combination of diversity and focus, the deep integration of theoretical frameworks and practical applications, the balanced consideration of overall structure and typical cases, as well as the strengthening of operability and the avoidance of cultural taboos. At the methodological level, it is

advisable to adopt a content-based teaching paradigm, construct a composite textbook system, and organically integrate language knowledge with professional skills.

The development of teaching materials can start with the extraction of high-frequency words and expressions, select typical catering elements (such as the type of pot bottom, including Double-flavor hot pot and soup pot), and order interactive links, and integrate regional cultural characteristics (such as Chongqing spicy flavor). The basic input module should include a vocabulary list and audio resources; The task practice module is implemented through scenario simulation; The evaluation and expansion module focuses on cultural deepening. Textbook design needs to be embedded with scaffolding support, such as progressive prompts and cultural annotations. At the same time, emphasis is placed on cultural teaching methods to enhance language output and prevent potential cultural conflicts through role-playing and immersive experiential activities (such as simulating the spiciness adjustment during hot pot ordering). The language difficulty should gradually increase, with the support of the learner's native language in the early stages, then achieve a fully immersive Chinese environment in the later stage.

4. Experimental Results

4.1 The Extraction of High Frequency Phrases

Approximately 27 high-frequency phrases were extracted from the collected dialogue samples through word frequency statistics and manual screening. These phrases are selected based on their frequency of occurrence (e.g. over 5%) and then classified by scenario, including greetings and seating, pot bottom selection, ordering and recommendations, dipping sauce and ingredients, and checkout and closing. Please refer to Table 1 for detailed information. These phrases indicate that the hotpot scene emphasizes interactivity and diversity of choices.

Table1: Extract 27 Phrases from the Samples.

Scene	Phrase	Frequency (%)	Explanation
Greetings and seating	Huan ying guang lin, qing wen ji wei, zhe bian qing, qing zuo	15-20	Initial interaction, establishing a friendly atmosphere
Pot bottom selection	Guo di, ma la guo, qing tang guo, yuan yang guo(yin yang guo), fan qie guo, jun tang guo, wei la	25-30	Core decision, reflecting taste preferences
Ordering and recommendations	Cai dan, dian cai, fu wu yuan, shen me hao chi, fang dian cu, shao fang tang, shi yi kou	20-25	Food interaction, involving quantity and adjustment
Dipping sauce and ingredients	Zhan jiang, zhi ma you, suan mo, xiang	10-15	Personalized seasoning enhances

Checkout and closing	cai, jiang you, cu Mai dan, xie xie, huan ying zai lai	10-15	the experience Conclusion, strengthen politeness
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4.2 The Publication of Textbook Prototypes

Taking the Yinyang pot as an example, explore the development of teaching materials. It mainly involves three learning modules:

Module 1: Basic Input. Introduction of Language List, accompanied by audio and Pinyin.

Module 2: Task practice. Role play, such as “two people order Double-flavor hot pot, choose spicy degree”.

Module 3: Evaluation Extension. Discussing extended topics such as the social significance of hotpot between teachers and students. Please refer to Table 2 for specific information.

Table2: The Three Modules for the Publication of Textbook Prototypes.

Module	Skill Goals	Task
1	Listen	Listen to the dialogue and identify the “Double-flavor hot pot”.
2	Speak & Practice	Simulate ordering and adjust spiciness.
3	Comprehensive Application	Discussing the Differences between Hotpot and Eastern and Western Cuisine.

The development of textbooks relies on big language models and multimedia technology. We use Yinyang pot as the keyword to immerse students in the application scenarios of core words, reducing excessive textual intervention. Figure 1 shows the learning scenario of Yinyang pot textbook.



Figure 1: Yinyang Pot Textbook Learning Scenario.

4.3 The Learning Effect of 27 High-frequency Phrases

We conducted a survey among 28 international students in the 2025 grade of Quzhou University. Research shows that through task-based teaching and immersive exercises, learners can significantly improve their oral fluency in the short term, such as achieving a correct usage rate of over 85% in simulated ordering, promoting confidence and practical communication skills. The evidence tends to suggest that these phrases can bridge language and culture, helping non-native speakers adapt to Chinese social norms, such as the communal eating symbol of hotpot symbolizing collective integration. However, the effectiveness varies depending on the learner's background, and beginners may need scaffolding support to avoid confusion of similar expressions; Suggest combining audio and cultural notes to enhance memory. Overall, the learning of these 27 phrases not only optimizes the application of catering scenarios, but also extends to a wider range of daily conversations

5. Conclusions

With the acceleration of globalization, the demand for teaching Chinese as a second language (CSL) is increasing day by day. The catering scene, especially hotpot ordering, has become an important area of CSL teaching due to its high interactivity and cultural embedding. This study takes the hotpot ordering scene as an example, extracts high-frequency Chinese language in catering through word frequency analysis and scenario simulation methods, and develops a textbook prototype based on task-based teaching and immersive teaching strategies. The study used a combination of literature review, dialogue sample collection and statistical analysis to extract about 27 high-frequency phrases from online resources and academic papers, such as "huan ying guang lin(Welcome)", "qing wen ji wei(How many persons do you have, please?)", "yuan yang guo(Double-flavor hot pot)". These phrases cover greetings, pot bottom selection, dish selection, and checkout. The development of textbooks emphasizes predictability, scaffolding support, and cross-cultural comparison, aiming to help non-native learners quickly master practical expressions. The results show that this method can effectively improve learning efficiency, but it needs to consider the differences in learners' backgrounds. In the future, it can be expanded to other catering scenarios to enrich CSL resources.

Acknowledgements

This research was supported by the following projects:

2024 the Research Project on Education and Teaching Reform of Education Majors in Vocational Colleges of the Ministry of Education in China, "Research on Intelligent Chinese Education in Catering under the Background of International Chinese Education" (JZW2024-ZWB-7)

2024 Quzhou University the construction project of the "Mentor+Project+Team" Innovation and Entrepreneurship Workshop, "Smart Book Boat" (SH20241101)

2024 the Education Teaching Reform Project of the Education Teaching Guidance Committee of the Ministry of Education in China, "Design and Practice Research on Personalized Reading Material Matching System for Compulsory Education Chinese under the Drive of Large Language Model" (2024JCYB026)

2023 Quzhou University Doctoral Research Launch Fund Project, "Study on the Readability of Chinese Educational Reading Materials for Graded Reading" (BSYJ202306)

2024 Zhejiang Provincial Philosophy and Social Sciences Planning Project, "Study on the Readability of International Chinese Education Reading Materials for Graded Reading" (24NDQN034YB)

2024 Yunnan Provincial Department of Education Science Research Fund Project, "Research on Rhetorical Application of Chinese Reading Materials for Young Children in Lancang Mekong Coast Countries" (2024J0915)

References

- [1] The Ministry of Commerce of the People's Republic of China. Jointly building the "the Belt and Road": a major practice of building a community with a shared future for mankind [DB/OL].
https://ch.mofcom.gov.cn/jmxw/art/2023/art_be0d8a37802642f6986875f3b6da1ad8.html, 2023-10-23.
- [2] Ministry of Education of the People's Republic of China. Chinese, a passport for mutual learning of civilizations - Observation of the 2025 World Chinese Language Conference [DB/OL].
http://www.moe.gov.cn/jyb_xwfb/s5147/202511/t20251117_1420566.html, 2025-11-17.
- [3] Jinming Zhao. Review and Reunderstanding of Teaching Chinese as a Foreign Language. *World Chinese Language Teaching*, 2010 (2): 243-254.
- [4] Yongyi Wu. Research on Teaching Methods of Chinese as a Second Language. Beijing: The Commercial Press, 2019.
- [5] Fang Chen. A review of research on methodologies of teaching Chinese as a second language from 2010 to 2024. Chiang Rai: Chiang Rai Rajabhat University,2025.
- [6] Dongqing Liu. Overview of the Development and Research of Teaching Materials for Teaching Chinese as a Foreign Language. Beijing: Chinese Language Teaching Press, 2016.
- [7] Sha Qiu, Lihua Wei. Exploration of Opportunities, Problems, and Countermeasures in the Digitization of Teaching Chinese as a Foreign Language. *New Media Research*, 2020, 6 (3): 73-76.
- [8] Tongtao Zheng. Inspiration from the Development of National Textbooks for Teaching Chinese as a Foreign Language //Newsletter of the World Chinese Language Teaching Association, Issue 1 (Total Issue 5), 2010.
- [9] Yi Yu, Yifei Li, Mingshu Chen. Design and Application of Chinese Language Education Games for Foreigners - I Learn Chinese in a Simulator. *Education Progress*, 2024, 14 (4): 32-39.
- [10] Manning C D, Surdeanu M, Bauer J, et al. The Stanford CoreNLP natural language processing toolkit//Proceedings of 52nd annual meeting of the association for computational linguistics: system demonstrations. 2014: 55-60.