

# *Exploration of the Construction and Use of "Chinese + Meteorology" Teaching Resources in the New Era*

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**Abstract:** With the deepening of the "Belt and Road" construction in the background of the new era, the learning needs of learners are also changing, and specialized Chinese teaching has become an important way to cultivate talents with both Chinese communication ability and related professional ability. Driven by the concept of a community with a shared future for mankind, the integration of meteorological disciplines and Chinese disciplines has been further strengthened. Therefore, it is necessary to think about the construction of teaching resources design real teaching activities based on the characteristics of the Chinese and meteorological teaching activities, and explore the ideas and use of specialized Chinese resources.

## 1. Foreword

With the rapid development of the world, international exchanges are increasingly frequent and more complex, and the Chinese application scenarios and fields of Chinese learners in the new era are also more diversified, such as connecting the friendly cooperation between the two countries with the help of Chinese and holding highly professional technical positions.<sup>[1]</sup>Therefore, in the construction of "Chinese +" teaching resources, we should extensively collect, integrate, and design the content, strive to fit real life, focus on practical problems, with diversified teaching forms, to provide students with practical language content and professional communication situation.

The ultimate goal of language teaching is to use this language for communication. The process of language communication is the same as the process of information transmission, which conforms to the order of "encoding — sending — transmitting — receiving — decoding". In communication, the speaker tries to code clearly and, avoid mistakes, complete the coding, and output through the transmitter.<sup>[2]</sup>In classroom teaching, language communication plays a major role. Combined with the characteristics of "Chinese +" subject learning in the new era, it is required to pay attention to the content and form of specialized Chinese teaching resources in the "coding" and "sending" stages, to better assist teaching activities.<sup>[3]</sup>

Driven by the concept of a community with a shared future for mankind, the integration of meteorological disciplines and Chinese disciplines has been further strengthened. To reflect the characteristics and professionalism of Chinese teaching for specialized meteorological purposes, the construction of related resources with high attention, high extension, and high frontier must keep up

with the pace of progress. In 2021, the Center for Foreign Language Exchange and Cooperation of the Ministry of Education issued five policy documents on Chinese teaching resources, including the Action Plan for the Construction of International Chinese Education and Teaching Resources (2021-2025), which further promoted the construction of relevant teaching resources. In the new era of Chinese teaching, due to the dissemination of information more widely and fast, students' learning needs are more complex, and more and more factors affecting the acquisition in the teaching process are embodied. Therefore, international Chinese teaching has higher requirements for the construction of teaching resources. In the teaching of "Chinese + meteorology", the teaching objectives of "meteorology" and "Chinese" should be closely followed, and students should be encouraged to acquire relevant content, and guided to cultivate a positive world outlook and values.

## **2. The Special Purpose of International Chinese Teaching Resources Construction Direction**

With the development of international Chinese education in the past 70 years, it is not difficult to find that the early traditional Chinese teaching mainly completes teaching activities with the help of specific teaching materials and supporting audio and video, and the traditional forms of teaching resources are relatively single. With the continuous development of modern technology, Chinese teaching resources are gradually informationized and intelligent. The existing Chinese teaching resources are already rich, only the traditional teaching materials have reached more than 20,000 kinds, and the digital resources are booming. The categories of Chinese teaching resources also involve various types of national teaching resources, teaching resources for specific cultural projects, and special teaching resources related to "Chinese + vocational education".<sup>[4]</sup>

Compared with the accelerating change of all kinds of information technology in modern society, the upgrading of teaching resources used by overseas students is slightly lagging, especially the specialized Chinese teaching resources. Take textbooks as an example. According to statistics, since 2000, nearly 6,000 universal Chinese textbooks have been published in the world, and only less than 600 are universal Chinese textbooks for special use, accounting for one-tenth. At the same time, although the common construction of Chinese teaching resources is by the "four modernizations" as the main line of the center, there are still Chinese teachers who feel powerless for the use of the existing teaching resources or fail to achieve the expected results after use. The most fundamental reason is that the construction of traditional Chinese teaching resources considers the "correctness" of the content, that is, that is, whether the content conforms to the lexical grammar and other norms, and ignores the pertinacity of the teaching content. This also leads to part of the teaching content accepted by specialized Chinese learners, which is seriously separated from their own expression intention and real expression scene. In teaching activities, if excessive use of teaching resources cannot be accurately applied to teaching, it is tantamount to giving students a lot of boring mechanical exercises, or other exercises without special use characteristics, resulting in low efficiency of the teaching process.

In the special use of the construction of Chinese teaching resources, relevant scholars found that the teaching resources construction to "language" goal, combining language knowledge and professional skills, based on Chinese learning, skills as the main line, meet the learners in the professional position or related in the field of effective communication needs.<sup>[5]</sup> International Chinese education teaching resources are constructed based on "standardization, systematic, intelligent, characteristic" four core principles, resources of the "four modernizations" construction follow the value logic, target logic, and practice logic, is the international Chinese education career crucial, discipline development, is the international Chinese education cross-domain fusion, technology can assign the only way.<sup>[6]</sup> To meet the needs of learners, the construction of "Chinese +" teaching resources needs to bring forth the new in content, keep pace with The Times in form,

further adapt to the specialized Chinese teaching in the new era, reach or exceed the expected learning goals of learners to the greatest extent, and constantly enrich the international Chinese education resource database.

### **3. Construction and Use of "Chinese + Meteorology" Teaching Resources**

Teaching resources are an important part of the development of international Chinese education and play a very important role in the smooth and efficient progress of teaching activities. Up to now, the construction of resources related to Chinese teaching for meteorology is still insufficient in the field of international Chinese education. From the perspective of textbooks, there are only two books related to "Chinese + meteorology", respectively, "Rapid Meteorological Chinese" and "Meteorological Chinese". Other related teaching materials, such as meteorological-related popular science videos, pictures, and texts, are only a few produced from the perspective of Chinese teaching, and most of which cannot be directly used in teaching activities. There are also a few database resources dedicated to "Chinese + weather" in teaching vocabulary use and highly matched after-school tests. This paper focuses on the characteristics of Chinese teaching for meteorological purposes, and uses two representative units in the "Meteorological Chinese textbook" —— "Modern Chinese and Meteorology", to provide targeted construction suggestions for the construction of "Chinese +" teaching resources.

#### **3.1 The construction of teaching resources of "Chinese + meteorology" should pay attention to the richness of content and improve the teaching flexibility**

"Chinese +" classroom teaching is different from the traditional international Chinese teaching. Under this teaching mode, students need not only the teaching content suitable for daily life but also the course content that is highly professional and in line with the communication in this field. At the same time, the "Chinese +" course is not entirely for students of relevant majors, but also for students who are interested in it. Therefore, the contemporary international Chinese teaching resources should be rich, which can not only provide students with a large number of targeted activities in classroom teaching but also facilitate teachers to choose more suitable teaching content under the same teaching theme.

This article takes the unit "Meteorological in Chinese Folk" as an example, and designs the teaching activities. The unit mainly takes the "24 solar terms" as the entry point to explain the relationship between meteorology and Chinese people's living habits and ways of thinking. According to the characteristics of the students, the teacher has designed different teaching activities. Here, there are two typical activities. Activity 1: Students find and describe the phenomenon of the 24 solar terms on campus, and make a short video. Activity 2: Students use professional vocabulary to describe and introduce the 24 solar terms, and cooperate to shoot promotional videos.

The two teaching activities are suitable for the classroom teaching of "Chinese + weather", which fits the theme of the unit and also achieves the maximum approach to the students' real life in the form. However, the difficulty of Activity 1 is lower, and the activity atmosphere is more relaxed. Activity 2 is more professional, and the scripts and lecture notes of the promotional videos are more complex, but at the same time, the content learned can also be used to introduce and publicize the relevant folk customs of the students' own countries, which is more suitable for the students' major. Activity 1 is more suitable for students who are interested in this course, and activity 2 is more suitable for students of their major. Of course, the activities in the teaching resources are not limited to the above two kinds. The resource construction should be rich and diversified. According to the real needs of students and their characteristics, teachers can quickly clarify the teaching content,

prepare lessons efficiently, and promote learning efficiently.

### **3.2 The construction of "Chinese + meteorological" teaching resources should pay attention to the update of resources and focus on the freshness of the input content**

The subject of "Chinese +" is an emerging mode of Chinese teaching with the development of The Times, and it should be based on Chinese teaching, supplemented by various majors, to improve the global adaptability of teaching content. The purpose of students learning Chinese for special purposes is to solve current professional problems in Chinese in the era of rapid development. Therefore, specialized Chinese teaching requires the teaching content and form to keep pace with The Times, and the input content in the teaching should have a certain freshness, to lay a good language foundation for students to understand the relevant professional information in real-time and master the latest technology.

Taking the unit "Modern City and Meteorology" as an example, the design target discussion topic is to guide students to discuss the related content of "city" and "weather", what types of topics and related content can teachers input? The main content of this unit is to explain the meteorological problems of modern cities, to show the Chinese methods and wisdom for modern meteorological problems, and to promote the dissemination of the idea of a community of a shared future for mankind at the core. Different teachers designed the following two discussion topics according to the content of the unit. Topic 1: Description of climate phenomena in different cities. Topic 2: On carbon emissions.

Both topics grasp the two key parts of "modern city" and "weather", and the content is also closely related to the learning content of this unit. Among them, topic 1 focuses on the perception and description of climate diversity in various countries in the world. Although it is not a specific topic and can also help students learn urban meteorology, this topic lacks extension and does not have high discussion value. Topic 2 is closely related to the contemporary carbon emission problem, which is not only a meteorological problem that China is facing but also a worldwide problem. Students can express the topic in many aspects according to what they have learned or their major. At the same time, this topic is a contemporary meteorological problem that teachers and students pay attention to and study, which can arouse emotional resonance and learning enthusiasm among students. Therefore, the more timely "Chinese +" teaching resources can not only enhance students' desire to output but also help students learn to deal with and analyze contemporary problems in practical operation.

### **3.3 The construction of "Chinese + meteorological" teaching resources should emphasize the use of diversified means for information transmission**

Nowadays, the development of modern information technology has promoted the reform of teaching and learning modes, and the use of multi-modal discourse analysis theory for online teaching is in line with the new trend of the development of international Chinese education.<sup>[7]</sup> The multi-modal content of teaching resources can play an important role in supporting specialized Chinese classroom teaching. On the one hand, diversified presentation methods can make the teaching content more three-dimensional and intuitive and, at the same time more convenient for students to understand and interact, and efficiently complete classroom activities. On the other hand, it can make the actual communication environment of "Chinese +" concrete, which can help to cultivate students' professional practical ability in real situations and lay a solid practical foundation for practical communication in the future.

In the unit "Meteorology in Chinese Folk", the final result of students is video shooting, and teachers constantly input various relevant popular science videos in the course, or public publicity

videos of major media. For example, the teaching auxiliary video and bilingual popular science video with school weather Chinese IP —— are used to stimulate students' senses with a lovely and lively image and cheerful rhythm, and guide students to be more efficiently familiar with the solar term-related content when watching the video. After seeing the relevant video content, students create the activity situation of shooting videos, to activate the classroom to the greatest extent, guide students to reduce the output "embarrassment", and promote the output of words that are more in line with the expected results. Also in the unit "Modern City and Meteorology", students need to learn professional meteorological knowledge such as the heat island effect. Teachers input a large number of pictures, videos, and reading materials according to the learning content. For example, making the simple animation of the heat island effect, representing the concepts of "heat", "dust" and "temperature inversion" in the textbook, intuitively shows modern urban meteorological problems. At the same time, various pictures, videos, and audio related to meteorological problems run throughout the course, using modern technology to pull practical problems into the classroom, arouse the resonance of students, enhance students' awareness of exploration, and promote the target speech output.

According to the characteristics of the "Chinese +" course, students' subsequent use of Chinese must not be limited to daily communication. Therefore, in the construction of resources, they reserve a large amount of diversified teaching content and real expression scenes, which can help students with immersive expression to the greatest extent and get rid of the awkward dilemma of output. In the whole "Chinese +" teaching course, the diversified presentation of teaching content also reduces the excessive auxiliary speech of teachers, reduces the difficulty of students' understanding, further stimulates students' senses, and makes students learn the target language points more efficiently.<sup>[8]</sup>

#### 4. Conclusion

This study finally in the construction of the related teaching resources, the two units of the specific teaching design, teaching resources closely combined with teaching content, closely "Chinese + weather" teaching characteristics, choose rich and fresh content input, combined with the diversification of present form, results guide students to output goals, improve students a sense of achievement. After class, teachers give students additional unit-related resources to increase students desire to output.

The construction of "Chinese + meteorology" teaching resources combines Chinese language and cultural knowledge, as well as meteorological professional knowledge, and provides more high-quality, practical, and novel teaching content for the teachers and students of this subject. It not only broadens teaching ideas and enriches teaching methods for teachers, but also provides students with learning content that meets the needs of students, guiding more students to pay attention to meteorological issues, learn meteorological knowledge while learning Chinese, and promote the training of international meteorological talents.

In short, specialized Chinese teaching is an important way to promote the economic development of various countries and train professional and technical personnel, but also an important way for international Chinese education to promote China's "going global". Further exploring the construction and use of "Chinese +" teaching resources can further promote the development of international Chinese education. It is believed that in continuous practice and innovation, Chinese teaching resources can be continuously enriched and improved, to improve the quality of practical teaching and promote the overall positive development of international Chinese education.

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## References

- [1] Zhong Yinghua, Li Zhi, Ding Lanshu, *The teaching concept of "expression-driven" and the construction of international Chinese teaching resources* [J]. *Journal of Tianjin Normal University (Social Science Edition)*, 2022, (06)
- [2] Ye, G. Xu, T. M. *The Outline of Linguistics* [M]. Peking University Press, 2006. (3)
- [3] Chen Hui. *Efficient language input and output in children's Chinese teaching in a non-target language environment* [J]. *Humanities Cluster*, 2017, (00)
- [4] Meng Yuan, Shang Ruofan, "Chinese + vocational skills" education: development context, realistic challenges and path selection [J]. *China Vocational and Technical Education*, 2022, (29)
- [5] Liang Yu, Liu Genqin, *Current situation and prospect of teaching resource construction of "Chinese + Vocational Skills"* [J/OL]. *Journal of Shenyang Normal University (Social Science Edition)*: [2023-12-30].2023-12-30.
- [6] Kuang Xin, Feng Liping, *International Chinese education and teaching resources construction road and road* [J]. *Journal of Tianjin Normal University (Social Science Edition)*, 2023, (05)
- [7] Lei Li, Pan Yufang, *Research on Online Teaching Mode of International Chinese Education under Multimodal Vision* [J]. *International Chinese Education (Chinese and English)*, 2022, (04)
- [8] Liu Mingyuan. *Creating an Efficient Classroom: Improving Students' Learning Enthusiasm and Initiative in Classroom Teaching* [J]. *Chinese Character Culture*, 2017 (12).