

The Curriculum Setting and Teaching Practice of "Scientific Japanese Literature Reading" in Universities

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ABSTRACT

Under the guidance of the demand for interdisciplinary foreign language talents, many Japanese majors in colleges and universities have also set up the course of scientific Japanese. However, the setting mode of comprehensive knowledge content learning is mostly adopted and there is no separation between reading and translating and other links. As a result, students feel it difficult to learn the content and thus have bad learning effect, to which the teachers also have no effective solutions. So, in this paper, based on the experience of teaching practice, the author proposes to set up reading and translation courses for scientific Japanese separately, and introduces the teaching practice of "Scientific Japanese Literature Reading", so as to provide ideas and methods for reference to the Japanese major setting in Chinese universities and the curriculum setting of scientific Japanese.

Keywords: undergraduate major, Scientific Japanese Literature Reading, teaching mode

I. INTRODUCTION

Since "The 13th Five-Year Plan for The Development of Scientific and Technological Talents" put forward higher requirements for the cultivation of high-level and compound scientific and technological foreign language talents, universities in China are responding more actively to the call. In terms of the cultivation of foreign language talents, they have strengthened the output planning of compound talents who know both technology and foreign language. As a result, sci-tech foreign languages are entering the curriculum system of undergraduate foreign language majors at a faster pace. At the same time, however, the problems in the teaching of scientific and technical foreign languages cannot be neglected, such as the change of teaching objectives, the updating of teaching materials and the retraining of teachers. ^[1] In the context of promoting classroom reform and "creating golden lessons" in particular, the reform of teaching mode has become the central problem to be solved urgently in the curriculum reform of scientific and

technical foreign languages. As a common foreign language other than English, scientific Japanese personnel training has been promoted in many colleges and universities, and scientific Japanese courses have also been set into the personnel training program.

II. RESEARCH DESCRIPTION

As early as the 1980s, scholars began to pay attention to the problems existing in the scientific Japanese teaching and the selection of teaching materials and reading materials in domestic universities of China (Takano, 1981; Zhang Zhiping, 1988 et al.). These problems have been troubling teachers for a long time. In 2008, the "new teaching mode of scientific and technical" was proposed. This model advocates targeted teaching for specific groups and needs, especially for the teaching of scientific Japanese, and focuses on reading comprehension and translation, so as to strengthen students' comprehension and quickly improve their Japanese reading level. [2]¹⁻⁴ Although this teaching mode is mainly targeted at science and engineering students, it is of certain guiding significance for Japanese majors to learn scientific Japanese and improve their reading ability of scientific Japanese. Many universities have also used this teaching mode for reference. Cao Yang (2015) proposed that the teaching mode should focus on the main role of students and the interaction between teachers and students, and advocated that students can

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not only learn language knowledge, but also achieve the effect of consistency between words and deeds and blending of scenes through different language environment settings and a lot of training. [3]

In recent years, through unremitting efforts, the domestic academic circle has also accumulated a certain amount of research on scientific Japanese. For example, Zhang Yuxia (2006) discussed the teaching orientation and importance of scientific Japanese translation in higher vocational Japanese education, and gave suggestions on the cultivation of students' scientific Japanese translation ability [4]; Liu Chunfa (2013) introduced the translation of foreign words in scientific Japanese [5]; Li Hong and Ren Honglei (2019) elaborated the Chinese isomorphism of words in scientific Japanese [6]; Zhang Lingli (2016) discussed the characteristics of scientific and technical translation from the perspective of the translation principles of "faithfulness, expressiveness and elegance" [7]. There have also been developments in teaching research. For example, Yang Qiuxiang (2006) explored the teaching mode and textbook construction of scientific Japanese based on the teaching exploration of more than 20 years, and put forward the teaching ideas of research-based learning, taking textbooks as the media, information exchange between teachers and students as the main body, strengthening practical teaching, and hiring experts to guide teaching, which are of great reference significance. [8] Li Xiaohong (2012) emphasizes the particularity of scientific Japanese course and puts forward new teaching concepts from the aspects of teaching objectives, methods and contents. The object of this teaching model is the large-class teaching of science and engineering majors, and the teaching process does not require grammar, vocabulary, listening and speaking, but focuses on training students in reading and translation, with the aim of improving the level of scientific Japanese in a short time. [9] This method focuses on speed and short-term effect, and does not require too much teaching mode in listening, speaking, reading and writing. In a sense, it meets the study and work requirements of science and engineering students. However, for professional Japanese students, the effectiveness of the teaching mode of "overgeneralization" and "lack of understanding" in terms of professional knowledge still needs to be explored.

In 2020, the Beijing Institute of Technology Press published the new textbook "Scientific Japanese". However, most of the textbooks we have seen so far are comprehensive curriculum teaching books for science and engineering, and few of them respond to the breakthrough of "new scientific Japanese teaching mode", namely, separating translation from reading. Without separating the links of listening, speaking, reading and writing, scientific Japanese teaching with comprehensive content has cumbersome courses

overloaded with information. As a result, students feel it difficult to learn and remember, and thus show less interest in this subject.

In addition, among the four stages of foreign language learning, "listening, speaking, reading and writing", "reading" is the foundation and an important source of knowledge acquisition. Therefore, paying attention to the cultivation of reading ability and setting up scientific Japanese literature reading courses should be the first task of the adjustment of science and technology Japanese curriculum system. Only when students understand the content can they translate it correctly, so reading in scientific Japanese is actually a very important part. Therefore, through the separate setting of reading, translation and other courses and the gradual introduction of scientific Japanese learning tasks in stages, the current difficulties in scientific Japanese teaching can be solved to a great extent.

III. INTRODUCTION TO THE COURSE OF "SCIENTIFIC JAPANESE LITERATURE READING"

Based on the undergraduate teaching practice of Japanese major in science and engineering universities in Shaanxi Province, the author introduces the teaching of "Scientific Japanese Literature Reading" from the aspects of specialty setting, course positioning, course content, teaching objective and teaching practice.

A. Course setting

Since the beginning of the construction of the Japanese major in the university she teaches, the author has taken scientific Japanese as the major training direction. According to the professional teaching plan, students majoring in Japanese can only study the specialized courses of scientific and technological Japanese after they have acquired certain language knowledge in the first and second year of university. "Scientific Japanese Literature Reading" in the system setting of junior scientific Japanese courses, the "Scientific Japanese Literature Reading", the "Scientific Japanese Translation" and the "Translation and Interpretation Workshop" together constitute the professional system of scientific Japanese courses. In the second semester of junior year and the first semester of senior year, the courses of "Scientific Japanese Reading (1)" and "Scientific Japanese Reading (2)" are offered respectively.

Before 2019, the planned teaching hours per semester will be 16 weeks, with 2 class hours per week, for a total of 16 classes and 32 class hours. Starting from the autumn of 2019, the teaching hours of each semester has remained unchanged. The 16-week course schedule has been adjusted to be offered in the first 8 weeks, and the 2 hours per week has changed to 4 hours

per week. This adjustment is adopted mainly to reduce pressure brought to students by the end of the semester.

B. Course content

The contents of articles in scientific Japanese are various, including scientific papers, special reports, monographs, patent documents, technical instructions and operation manuals, contracts and correspondence, repair and maintenance operation manuals and other different contents and genres. The reason for choosing different types of articles as much as possible is that different scientific articles have different language characteristics.

IV. COURSE TEACHING OF "SCIENTIFIC JAPANESE LITERATURE READING"

A. Teaching objectives

The main purpose of this course is to systematically teach basic methods of reading comprehension, including scientific Japanese articles. After guiding the students to grasp the characteristics of scientific Japanese in grammar, sentence patterns, paragraphs, discourse and other aspects, it is necessary to manage reading comprehension training for them. Students should be guided to learn the systematic reading methods from the source of the article, chart reading, terminology expression characteristics to various stylistic characteristics, in hope that they can master the special vocabulary and phrase expression, grammatical features and basic sentence structure, discourse structure and expression characteristics, language expression and reading skills of scientific Japanese articles through this course, expand their knowledge, deepen their understanding of technical terms, and develop their ability to read and understand scientific and technical articles in Japanese as well as intercultural communication skills.

B. Teaching content

In the first semester, that is, the second semester of junior year, the main learning content is to be familiar with and master the basic language features and reading skills of scientific Japanese, such as genre, sentence pattern, grammar and style. In the second semester, the senior grade last semester, through the reading of the current technological frontier research content of the articles and journals, such as artificial intelligence, human body engineering, biological genetic engineering technology, superconducting technology of science and technology, including papers, book excerpt, excerpts of teaching material, specifications, laboratory reports, patents, etc., students are expected to gradually increase their literature reading ability of the scientific and technical literature, improve their technology of knowledge accomplishment and broaden their

international field of vision. The "Scientific Japanese Reading (1)" is based on "Modern Scientific Japanese in the Field of Science and Technology in the New Century" (Chen Ruiying, Zhu Lin. Zhejiang University Press, 2012). The main source of the "Scientific Japanese Reading (2)" is mainly from JST (Japan Science and Technology Agency), the database of scientific, technical and medical content provided by the joint-stock company J-Search, Japan's biggest scientific Japanese literature retrieval database (JDREAM III) and Japan's G-search largest commercial data retrieval platform, etc. The content should be novel in material selection, involving representative scientific and technological fields, and considering the knowledge, interest and content difficulty.

C. Teaching practice

The teaching is carried out in a student-oriented and teacher-assisted form. By means of reading training and expanding knowledge to supplement classroom teaching and information knowledge that cannot be obtained from books, students' autonomous learning ability is cultivated, and the explanation of learning tasks is completed through teamwork, so as to achieve the purpose of exercising students' teamwork. Attention is paid to the interaction and information exchange between teachers and students and among students, and the network technology can be used to achieve open classroom teaching, realize the combination of online and offline teaching methods, so that learning methods and ways of information exchange can be more diverse and convenient.

The courses are conducted through the online platform of the App Tree. In order to improve students' awareness of independent learning, the "learning task" of the Tree is used to arrange preview tasks before each class. Students are required to preview grammar, new words and idiomatic expressions. And homework is set after class, such as reading comprehension after class, and tips translation and other extended training. By monitoring the time and length of students' online learning, teachers can learn the learning situation of each student. For homework after class, ordinary tasks can be set, which only requires students to study independently, or they can be set as requiring to be submitted, asking students to upload the homework in accordance with the requirements before the specified time node. Teachers can also set the submission mode to allow students to submit late, urge them to submit, etc., which is very flexible.

In class, in order to avoid the single mode of teacher's monologue in online teaching and improve students' participation in class, the link of flipped teaching is set up. The whole class can be divided into several groups, each of which makes the teaching preparation for the literature of science and technology

topic. The preparation time is basically about 1 week. In the link of online teaching, the responsible team will lead the students to read the literature, and the teachers will carry out the auxiliary teaching operations such as roll call, answering questions and opening barley from the side, and provide timely guidance, supplementary correction or summary if necessary. On the column "learning materials", documents, pictures, videos and other learning resources can be uploaded and published in advance. Therefore, in the collect search and use extracurricular materials related to the topic of responsible scientific literature according to the group's lecture needs. The teacher uploads and publishes the materials submitted by students before class, and they can extract and use the materials from the courseware at any time in class.

At the end of each semester, students will reflect on the course and adjust the content and schedule through the study and feedback.

V. CONCLUSION

As a training program for scientific Japanese majors, the course "Reading Japanese Literature for Science and Technology" has only been practiced for 2 years, and it still needs to be explored and improved from the following four aspects in the future teaching practice.

A. Teaching materials

The current available textbooks, or the comprehensive textbooks of scientific Japanese, or the reading contents published earlier, cannot meet the contemporary requirements of the reading materials for this course.

B. Schedule

Since the content of scientific Japanese covers a wide range and it is not enough just to learn it in class. Therefore, how to better coordinate students' time arrangement and conduct the interaction and connection of learning in class and after class is also an issue needs considering in the future.

C. Teaching methods

Taking the app Tree used presently for example, learning resources can be selected as courseware in the meeting class, but they need to be uploaded and published in advance. When playing audio and video, the student side can control the progress of the file by itself. However, the progress bar can only be dragged by the teacher side to set to play from the middle part, and the student side can only play from the beginning. If the teacher do not foresee and deal with these problems, it may affect the normal smooth progress of the classroom. Although the problem can be solved for the moment though the use of other alternate apps like

QQ live lesson, Tencent Meeting and QQ groups, it needs to be addressed urgently from the long run.

D. Teaching environment

The reform of teaching methods makes it possible to teach and learn without staying in the classroom. In this way, teachers need to work hard to attract students' attention to avoid problems such as lack of attention due to the lack of direct supervision.

Therefore, the exploration of scientific Japanese teaching still needs the efforts of more teaching workers in the continuous practice test. However, the progress and development of the times and civilization provide more space for development, and it is believed that the foreign language teaching of science and technology has great potential in the future.

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