“Production-Oriented Approach” and New technology in Vocational Chinese Teaching

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ABSTRACT: The idea of “Production-Oriented Approach” (POA) is to solve the disadvantage of “separation of learning and application”. This paper analyzes how to do each process and puts forward specific teaching strategies in vocational Chinese teaching. It includes workplace case analysis, dilemma and demand orientation, disciplinary integration, student immersion participation. New technology can make learning more diverse. It includes the use of modern media technology, development of three-dimensional intelligent teaching materials and development of professional web learning resource library. POA connect with new technology can improve vocational Chinese teaching.

1. Introduction

“Production-Oriented Approach” (POA) was created by the team of China Foreign Language and Education Research Center, Beijing Foreign Studies University, aiming to overcome the disadvantage of “separation of learning and application” in foreign language teaching in China. It emphasizes the use of learning, learning by using, learning while using, and the seamless connection of learning and using[1].

POA consists of three parts: teaching concept, teaching hypothesis and teaching process.”Teaching concept” is the direction and overall goal of classroom teaching.”Teaching hypothesis” is the theoretical basis of all aspects of classroom teaching.”Teaching process” is the steps and means to realize the teaching objective and teaching concept of POA, and can also test “Teaching hypothesis”[2].

Vocational Chinese is the social function variant of general Chinese in the field of occupation, such as business Chinese, medical Chinese, tourism Chinese, etc. It has a strong pertinence and practical demand, so it is more necessary to highlight the “integration of learning and application”. We try to apply the POA method in vocational Chinese teaching to improve teaching and learning efficiency.

2. POA teaching process of vocational Chinese

The teaching mode of vocational Chinese is “short, unsystematic and fast”[3], and the POA can quickly reflect the deficiencies of learners and stimulate subsequent learning through the deficiencies. Its teaching process includes an infinite cycle of driving, facilitating and evaluating.

1. Drive

“The driving part is the most challenging, and teachers cannot design the teaching process only around the text like traditional teaching”[4]. POA requires teachers to design appropriate communication scenes according to output goals and tasks to stimulate students’ interest and motivation in learning.

First of all, it is necessary to understand the vocational characteristics and demands of learners, and the choice of communicative scenes should be close to the working environment and work content of learners. The communicative scene is the first step of the drive. The teacher should make clear the topic, identity, purpose and occasion of the output[5].

Secondly, multi-modal drive mode is advised. Mode refers to “communication channels and media, including language, technology, image, color, music and other symbolic systems”[6]. Multimodal is the way that multiple symbolic systems interweave together to express meanings, which can be classified into linguistic modes and non-linguistic modes.

Try to be flexible in your choice of driving methods. We can take video, animation, voice, picture, micro lesson and other forms. Modern media technology can also be used to create situations, so that learners can experience from multiple perspectives, enrich the way of learning, and increase the sense of experience.

2. Facilitate

“The enablement is the core link of the output-oriented method, and also an important link to realize the integration of learning and application. At this stage, teachers are no longer teaching textbooks, but guiding students to selective learning according to the needs of the output task, and
building scaffolding for students to acquire knowledge related to the output task[7]. The role of teachers in “guiding” is very important here, and certain requirements are also put forward for the skills of “guiding”.

First of all, teachers should be good at guidance. It can be carried out from the following aspects: First, guide students to focus on the key points. Let students be clear about the task breakthrough point, and then diverge their thinking. Second, students should be guided to “situation” thinking, bringing themselves into the task and putting themselves in their shoes. Thirdly, guide students to observe from multiple angles and break through conventional thinking from different perspectives. Fourth, guide students to “transfer and transform”, transfer similar experiences or tasks to new tasks.

Secondly, teachers should timely activate the “pictorial” cognition in students’ brain. To mobilize the existing knowledge of students actively, let students draw inspiration from the old knowledge, positively thinking, use their imagination connecting with new knowledge. Through the construction of career scene, we can activate the language memory in students’ brain.

### 2.3. Evaluate

Evaluation can be divided into immediate evaluation and delayed evaluation. Immediate evaluation refers to the evaluation made by teachers according to students’ feedback and interaction in classroom teaching, while delayed evaluation refers to the evaluation of students’ exercises or examinations after class. POA two-way evaluation mechanism which is mutual evaluation between teachers and students, can help teachers timely adjust the pace of teaching, control the teaching progress, diagnose the teaching behavior, and help students timely check the gaps, adjust the learning state.

It can be considered to set up a “student evaluation form” to investigate the teaching content and satisfaction by random sampling or interview. Or teachers themselves use the “observation weekly record” to organize the teaching. It can also be considered that the employer can evaluate through language practice, and learners can also evaluate themselves in their work. The evaluation system should be diverse and instructive.

### 3. The teaching strategies of POA

#### 3.1. Workplace case analysis

We collect the workplace language cases of learners, so as to understand the language usage situation in the actual work scene, and carry out modular teaching according to the cases. Through a variety of cases, we can use real language to deal with the problem. Teaching should consider different levels of learners and solve their practical problems.

#### 3.2. Dilemma and demand orientation

Only by understanding the learners can we design a teaching model that works for them. Because of their own identity and working environment, professional Chinese learners can better understand the focus on learning, and can also test what they have learned through work practice, so as to know their own shortcomings. Through the investigation of learners’ dilemmas and needs, we can carry out targeted teaching with a problem-oriented approach and grasp the key and difficult points of teaching accurately.

According to our survey, 73% of learners think that they can’t communicate effectively with the target language group, 15% think that they have few opportunities to practice, 8% think that writing is too difficult, and 4% think that they are too busy with work and have no time to study.

#### 3.3. Integration of disciplines

Vocational Chinese teaching is a part of the second language teaching, which has both the commonness of second language teaching and its own special attributes. We need to explore and expand it with the perspective of disciplinary integration.

We need to combine occupational characteristics with pragmatics and culture. Appropriate workplace topics, special words and special sentence patterns are selected according to the requirements of standardization and appropriateness of language expression in different work scenarios. At the same time, it is necessary to introduce some taboo words and polite words in the workplace, so that learners can understand the workplace culture in cross-cultural communication.

Also we should incorporate ideas from other fields into our teaching. Through the association with other subjects, it helps learners to activate their thinking[8], eliminate their fear of learning difficulties, and improve their learning efficiency. For example, when it comes to PPT making skills, we often combine creative ideas from other fields then use PPT technology to let students play class games. Such as scratch-off, golden egg, playing cards, whack-a-mole and other projects, absorb the concept of games, lottery, real estate and other industries. Teachers integrate language learning with these areas, which not only enriches teaching forms, but also improves students’ interest.

#### 3.4. Immersion participation

Total Physical Response (TPR) was created in the United States in the early 1960s. It emphasizes the coordination of language learning behavior and trains the comprehension ability through the response of body movements, so as to help learners master the target language[9]. “Moving” during the learning process helps to deepen students’ perception through exercise memory; the mobilization of various senses is conducive to stimulating the absorption of knowledge.

We can make use of learners’ professional identity to carry out language practice, actively apply what we have learned in class to workplace, and strengthen our thinking and habits of language use through dialogues with native speakers in actual work scenarios.

We can use singing, acting, painting and other teaching methods to attract the participation of learners. In the teaching of singing method, we usually adapt lyrics by adding learning content with familiar music melodies. For example, we adapted lyrics from the music of “Beijing Welcomes You” to create “The Customs Welcomes You”, which learners like very much. We can also combine the theme or festival, choose
the corresponding songs study directly. Performance methods include scene performance and game performance. Scene performance is a language performance in which certain scenes and plots are set according to the text topic. The performance of the game is mainly demonstrated through physical movement, and the other person guesses the intention of the performer based on the display. Commonly used game shows are “you show and I guess”, guess words by looking at the mouth movement of a performer.

4. The use of new technology

4.1. Use of modern media technology

The new technology not only has the four-dimensional presentation of "text, image, sound and vision" in one, but also realizes the deep application of 5G, 8K, AR, VR, blockchain, cloud computing and artificial intelligence. Vocational Chinese teaching can be combined with modern media technology to expand the teaching scene and increase the sense of reality and experience of learning. For example, virtual scene introduction in business Chinese teaching, virtual scenic spot introduction in tour guide’s Chinese, virtual customer service in hotel’s Chinese, etc.

We can use speech synthesis and speech recognition technology to score learners' speech practice, speech dialogue and so on to help learners understand the speech standards. Learners can also determine whether the pronunciation is correct by converting speech input into text form.

4.2. Development of three-dimensional intelligent teaching materials

Traditional paper teaching materials have been difficult to adapt to the current environment, so it is necessary to develop new three-dimensional teaching materials under the new media and network technology. Although there is a certain scale of Chinese learning software, there are many problems such as single function, slow updating, repeated resources, lack of pertinence, weak interaction and so on.

On the basis of traditional textbooks, we make full use of new media technology and rely on the underlying technology of ISLI/MPR standard system to realize the association between text and pictures, audio, and video. Readers can obtain the corresponding material by scanning the chain code in the book through the mobile phone.

The new intelligent teaching materials should be the new integrated media teaching materials that use online resources and span multimedia, Internet and information technology. With electronic products as the carrier, the new intelligent teaching materials use text, sound, image, animation, video and other multimedia technologies and artificial intelligence to present various forms of learning content. It can integrate various learning tools, teaching management and auxiliary resources to support teaching and learning. In addition, artificial speech recognition, artificial speech dialogue, AR simulation scenarios, video and voice connection online learners and teachers should also be added. Three-dimensional intelligent teaching materials will make the interaction more multi-dimensional.

4.3. Development of professional web learning resource library

Web resource learning libraries are divided into two categories: web testing and web games. The web test is conducted in the form of answer or examination. The system calculates the result and ranks it according to the correct rate and speed of answer. In web games, individuals or groups compete against each other to win points or rank. Web games are more entertaining.

Web testing is less time-consuming and economical than traditional pen and paper testing. The system scores automatically and the feedback is instant. The background forms quantitative results according to the data, and it is convenient for teachers to collect data. Web games are not only for entertainment, but for learning purposes. It combines entertainment and knowledge.

There are many types of web games, such as challenge, promotion points, etc. Quizlet, Kahoot and ED puzzle are the main ones that are popular with students. We should also design some web learning libraries specifically for vocational Chinese learners to meet the learning needs of professionals. For example, online questions and answers can be completed through the form of man-machine dialogue. After the learner finishes the answer, the system calculates the pronunciation standard and grammatical correctness, and finally gives the score and the reference answer. By referring to the answers, learners can review the topics they have practiced.

5. Conclusions

POA emphasizes “integration of learning and application”, pays attention to learning itself, and highlights the humanistic nature of education. It requires teachers to have a sense of “driving”, flexible and ingenious driving methods, and students to have a sense of “insufficiency” and hunger for learning. And then under the guidance of teachers, students joining in the interactive activities, complete the task output. The ideal goal of this theory is to make students learn something, apply what they learn, and become talented by learning.

Vocational Chinese learners have strong awareness of their own inadequacy due to occupation or market demand. The POA should be good at grasping the deficiency, and stimulate the output through reasonable guidance, so that learners can continuously strengthen their language ability through workplace practice.

New technologies can diversify learning resources and make learning scenarios real. Learners can learn multiple times and choose what to learn in their free time. “Production-Oriented Approach” combined with new technology can make vocational Chinese teaching more vivid and effective.

REFERENCES