Research on the Construction of Pharmaceutical English Loose Leaf Textbooks in Higher Vocational Colleges Based on Chaoxing Learning Platform

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Abstract. Pharmaceutical English in higher vocational colleges is a professional basic course for pharmaceutical students in higher vocational colleges. This course has both basic English knowledge and pharmaceutical professional knowledge, which lays a foundation for students to complete future in-depth learning and meet future job requirements. This paper discusses the development and construction of pharmaceutical English loose leaf textbooks in higher vocational colleges by using Chaoxing Learning Platform. By means of micro courses, curriculum ideological and political resource database and VR information technology on the learning platform, loose leaf teaching materials are developed and constructed to keep up with the requirements of the times, close to students' learning situation, improve teachers' information level, and constantly revise and adjust in teaching practice, so as to improve students' autonomous learning ability and comprehensive English application ability, so as to better meet the needs of future posts.

Keywords: Chaoxing Learning Platform · Pharmaceutical English in higher vocational colleges · loose leaf teaching materials

1 Introduction

The reform of teaching materials is the most direct embodiment of the reform of talent training mode and curriculum system. It is also an important carrier for cultivating high-quality skilled talents and a powerful breakthrough for improving the teaching quality and excellence of vocational education. The implementation plan of national vocational education reform clearly puts forward "building a large number of national planning teaching materials developed by dual cooperation between schools and enterprises, advocating the use of new loose leaf and work manual teaching materials and supporting the development of information resources" [1]. In September 2020, the Ministry of Education and other nine departments issued the action plan for improving the quality and excellence of vocational education (2020–2023), which pointed out that "innovate the form of teaching materials according to the characteristics of students in

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vocational schools, and promote loose leaf, working manual and media integrated teaching materials with scientific rigor, easy to understand, illustrated and diverse forms" [2]. In the textbook management measures for vocational education, it is also clearly proposed to "organize the construction of new forms of textbooks with deep integration of information technology and education and teaching, comprehensive application of multiple media and rich expressiveness". The national policy level has pointed out a clear direction for the development mode and content structure of vocational education textbooks, and also provided a strong starting point for promoting the high-quality development of vocational education.

2 Loose Leaf Teaching Materials

Loose leaf teaching materials refer to the contents and materials that need to be used in teaching, which can be divided and combined at will. They are unbound books, thin books and paper, and presented in a new style or type. The teaching contents of loose leaf teaching materials closely follow the actual needs of production and the latest trend of industry development, and quickly integrate new technologies, new processes and new norms. The teaching contents can be flexibly selected and assembled. The whole process is dynamic and the teachers keep track of the students' learning situation [3]. Loose leaf teaching materials, workbooks and integrated media teaching materials all put forward higher requirements for the integration of teaching materials and information. With the development of information technology, MOOC teaching, flipped classroom and online courses have been promoted in higher vocational colleges for many years. Moreover, online and offline hybrid teaching has also been widely recognized by the educational circles [4]. Information technology makes online education possible. In order to solve the differences in students' cognitive characteristics, learning ability and learning habits caused by the diversification of students in vocational education, a large number of information technologies have been applied to education and teaching, and gradually form an information resource system from two-dimensional animation and three-dimensional animation to VR and AR, and then to micro courses and online open courses. The construction of new teaching materials should effectively realize the integration of old and new media, make the content of teaching materials more vivid and intuitive in line with the learning psychology and cognitive law of higher vocational students, and meet the needs of autonomous learning and ubiquitous learning [5]. Therefore, in the current situation, it is necessary to explore different forms of textbooks and development based on information technology.

3 Post Demand in Pharmacy

Pharmaceutical English is a branch of professional English, which is used by people in the pharmaceutical industry. Pharmaceutical English, as a professional basic course for pharmaceutical students, not only has the basic knowledge and skills of English listening, speaking, reading and writing in general-purpose English courses, but also paves the way for pharmaceutical professional knowledge. The course aims to improve

students' English application ability in daily life and professional scenes, cultivate students' cross-cultural awareness, improve students' ideological and moral cultivation and cultural literacy, and lay the foundation for students' career, continuous learning and lifelong development. At present, the development of the pharmaceutical industry needs a large number of compound talents who not only have pharmaceutical professional skills but also have good English ability in the fields of scientific research, production, trade and service. However, the recent survey shows that compared with other core competencies, pharmaceutical graduates' foreign language application ability is relatively weak in positions involving pharmaceutical enterprises, pharmacy (store) foreign guest reception, foreign business negotiation and so on, which directly restricts the long-term development of students' career. Therefore, further improving students' professional English literacy is not only the need to cultivate compound pharmaceutical talents, but also the inevitable requirement for graduates to adapt to the development of the times.

4 Practical Difficulties in the Construction of Pharmaceutical English Teaching Materials in Higher Vocational Colleges

To carry out ESP teaching, we must rely on appropriate series of teaching materials. Without a series of ESP teaching materials with appropriate subjects, moderate difficulty and appropriate language, the teaching quality of ESP cannot be guaranteed. At the same time, with the progress of science and technology, the pharmaceutical industry continues to produce new technologies and products. Therefore, new posts and new work contents require the renewal of teaching contents to meet the needs of posts. By studying the current pharmaceutical English textbooks on the market, we can find that there are few English textbooks for pharmaceutical students in five-year higher vocational colleges. Some colleges only use one textbook with general pharmaceutical content, ignoring the differences of majors. The content is not rich enough, and there is a lack of relevant counseling materials and the expanded reading materials. In addition, as it takes a long time from material selection, editing to publishing and distribution, the students cannot get access to the latest research and development of their major in class. This is contrary to the vocational education concept that "Vocational education must be connected with the actual job, and the curriculum teaching should take the knowledge and skills required to complete the job tasks as the main content". It can be seen that the dilemma of teaching materials in vocational colleges exists objectively at this stage, and the bottleneck of school-enterprise cooperative development of teaching materials is also in urgent need of breakthrough. It is imperative to explore a new path of developing teaching materials.

5 Feasibility of Applying Loose Leaf Textbook to Pharmaceutical English Course

In terms of theory, Li Zheng [6] made a systematic exposition on the connotation, characteristics and compilation strategies of the new form of teaching materials, put forward that the essence of the "loose leaf" teaching materials is the reform of the content organization mode of teaching materials, and put forward the "list of professional abilities", a teaching material structure development scheme specifically for the development organization structure of loose leaf teaching materials. He pointed out that "professional ability" is the basic unit of the organizational structure of loose leaf teaching materials, which means that the organizational style of teaching materials for professional courses of vocational education will change from the past subject knowledge style of "chapter section" to "work task-professional ability", which provides a clear idea for the development of loose leaf teaching materials.

Pharmaceutical English course is a professional basic course for students majoring in pharmacy in higher vocational colleges. The goal of this course is to help learners master certain medical English knowledge and skills on the basis of Public English learning, and have a certain comprehensive application ability of listening, speaking, reading, writing and translation in the medical workplace environment, so as to lay a good foundation for learning professional courses and further improving the application ability of medical English. It is different from the general nature of public basic English course. The content of pharmaceutical English course is closely related to the job content and the content of pharmacy specialty. Therefore, the content of pharmaceutical English course needs to keep close contact with post development to help students adapt to the English application links in the future workplace. The teaching materials of pharmaceutical English course should be designed to fully cultivate students' abilities in listening, speaking, reading, writing and translation, so as to meet the needs of future posts. Figure 1 shows the basic framework of pharmaceutical English loose leaf teaching materials in higher vocational colleges. This framework is committed to realizing the connection between pharmaceutical English course content and professional ability, so that the students can have a full understanding of the process in which their future post requires. The contents they learn can be linked to the contents of their future posts.

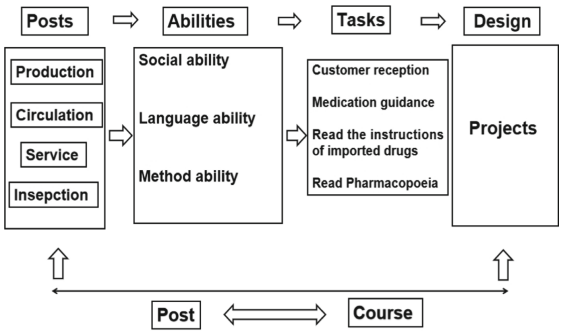

Fig. 1. Post-course design in Pharmaceutical English.

6 Development Strategy of Pharmaceutical English Loose Leaf Textbook Based on Information Technology

As a new form of teaching materials in the course of pharmaceutical English, the loose leaf textbooks should be combined with information technology in an appropriate way so that the students can get access to the latest working process. Starting from the characteristics of pharmaceutical English course, based on the current development of information technology and combined with the learning situation of higher vocational college students, this paper puts forward the following development strategies of pharmaceutical English loose leaf textbooks based on the development of information technology.

6.1 Micro Lectures

The length of micro lectures is between 5–8 min. It usually focuses on a certain core knowledge point, which is introduced in detail in the form of short micro video, and can be played and shared online. Short and concise, diverse resources and convenient dissemination are the remarkable characteristics of micro lectures [7]. The micro lecture is small and powerful, which can make concentrated breakthroughs in the key and difficult points of knowledge, and can be used repeatedly. It has great flexibility in teaching. It can be used not only before class to help students preview, but also in class to assist teaching. At the same time, it can also help students review and consolidate knowledge after class. Micro lectures and flipped class go hand in hand, which can promote teachers to innovate teaching mode. It has good practical value to improve students' learning interest and autonomous learning ability.

In the development of loose leaf teaching materials, the production of micro courses can be integrated into the whole teaching process. By means of information technology, it is embedded in loose leaf teaching materials to make loose leaf teaching materials "live". What teachers use is also alive. The design of micro course content should emphasize interest and reasonably set suspense, so as to guide students to think and effectively explain the teaching content [8].

Take the practice of listening and speaking of the module of drug sales as an example. In this part of teaching, teachers can make micro courses, embed loose leaf teaching materials in the form of two-dimensional code, and timely modify and adjust the content of micro courses according to the update and development of post content, such as changing scenes, changing dialogue content, etc. At the same time, teachers can also find relatively rich micro resources on the Internet and embed the corresponding parts in an appropriate way, which can also be used as a living part of loose leaf textbooks.

The teachers can turn to different software to make micro lectures and upload to the Chaoxing Learning Platform. Teachers can use Wancai to make cartoons by adopting different kinds of parameters and setting different of scenes.

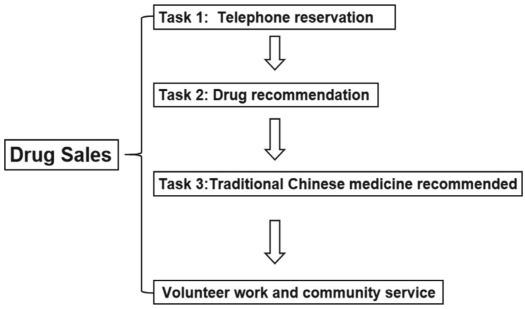

Fig. 2. Loose leaf textbook.

6.2 Ideological and Political Resource Library

Pharmaceutical English involves professional pharmaceutical knowledge. While learning the development history of Western pharmacy, the students also master the development history of traditional Chinese medicine. It is an important position for the implementation of curriculum ideological and political education. In the process of pharmaceutical English teaching, it is necessary to use the ideological and political resources in time. Take the drug gift box purchased by foreign tourists as an example. The teaching of Chinese traditional pharmaceutical culture can be added in the form of loose leaf to increase the ideological and political nature of pharmaceutical English course. It is of great significance for students to understand Chinese excellent traditional culture while learning pharmaceutical English. Figure 2 takes Project 1 as an example to display how the ideological and political resources can be embedded into the loose leaf textbooks to facilitate the students to better master the basic knowledge while mastering the traditional Chinese culture.

6.3 VR Technology

VR (Virtual Reality) technology can be used in the loose leaf teaching materials. In the compilation of loose leaf teaching materials, modules and projects are used as carriers to create corresponding situations. In actual teaching, the teaching place is applied with the means of information technology to simulate the working environment to the greatest extent, so as to enable students to carry out in-depth learning in the VR simulation environment, improve students' sense of learning experience, enhance learning motivation, increase learning interest, and create a "real" communication environment with VR technology. With the help of the situation created in the loose leaf textbook and VR software, the students can understand all links of drug sales and the contents of dialogue, and then carry out learning activities independently in the form of group activities under the guidance of teachers.

The workplace situation created by VR improves students' interest in learning. The use of other educational games, such as cultivation games and breakthrough games, can be applied to the development of loose leaf teaching materials, which are embedded in QR codes. Teachers develop and study collectively in the form of teams to improve the effect of loose leaf teaching materials.

7 Conclusion

The development of loose leaf teaching materials is to implement the national requirements for the development of new loose leaf teaching materials for vocational education. With the help of information means, such as micro lectures, ideological and political resource library and VR technology, loose leaf teaching materials for pharmaceutical English in higher vocational colleges can better meet the needs of the times and the design of loose leaf textbooks is in line with the cognitive law and psychological development of higher vocational students. It helps teachers and students keep up with the development of the times and meet the job requirements. Teachers and students use loose leaf teaching materials to carry out teaching reform and autonomous learning. To some extent, it can enrich the connotation and level of the development and application of loose leaf teaching materials, and provide reference for the development and research of loose leaf teaching materials in vocational education. Therefore, the combination of information technology and loose leaf textbook development needs further exploration and practice.

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