

THE DESIGN OF MIXED TEACHING MODE OF VOCATIONAL EDUCATION UNDER THE BACKGROUND OF INTERNET

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Abstract: *This article objectively analyzes the main problems of distance education in vocational education under the current Internet background, and gives solutions to these main problems. By setting teaching goals scientifically and reasonably, adopting a mixed teaching model, designing a perfect teaching process and formulating a scientific course evaluation method, Internet distance teaching will achieve better teaching effects to make up for the shortcomings of traditional teaching methods.*

Keywords: *Distance teaching, Instructional design, Classroom structure*

1. INTRODUCTION

Teaching mode refers to the teaching activity method, process and structure constructed according to the teaching theory in the course of teaching activities. It is a way to effectively combine teaching elements and produce certain teaching effects. At present, the common teaching modes in the field of vocational education include dual education system, integration of theory and practice, modularity of knowledge, modern apprenticeship system, and course and competition integration system.

With the continuous development of computer and network technology, this technology is more and more widely used in teaching. The teaching mode composed of computers, networks and mobile terminals is also more and more applied to the field of vocational education.

However, the emergence of COVID-19 virus has changed the way people produce, live and learn. According to the website of the World Health Organization, as of 10:00 a.m. Eastern Time on May 2, 2020, there have been 3,267,184 cases of new coronary pneumonia diagnosed globally, and a total of 229,971 deaths. Faced with such a severe epidemic, the overall order of human society has been unprecedentedly challenged. In order to quickly control the spread of the virus, countries around the world have to close factories and schools, or even close the entire country.

In order to minimize the impact of the epidemic on teaching, many countries in the world have “moved” the classroom to the Internet, and teachers have taught students’ knowledge through the Internet. In this way, even if the students stay at home, they can continue to study as planned. Although this teaching method can span time and space and has many advantages, this teaching mode also has some defects, and the teaching effect is difficult to achieve the intended purpose. The existence of these problems severely restricts the quality of vocational

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education using the Internet to carry out distance teaching. Under such circumstances, how to set the teaching mode and achieve better teaching effect is an important issue faced by teaching management and practitioners.

2. THE MAIN PROBLEMS OF INTERNET DISTANCE TEACHING

a. Environmental interference during teaching

The traditional teaching environment is in the classroom. Therefore, teachers can always pay attention to the learning status of each student in the classroom. However, due to the different environments of teachers and students participating in Internet distance teaching, it is difficult for teachers to have a glance at the time of class, and it is impossible to find out the problems that students have in listening to the class. On the other hand, because the environment of individual students does not meet the requirements of learning, inappropriate images and sounds will also affect the teaching of teachers and the learning of other students.

b. The problem of low interaction efficiency in the teaching process

In the process of distance teaching, teachers generally turn off the microphones of students temporarily in order to control “noise”. But in this way, students cannot ask questions in time when they have problems in the class. Even if they can use words to communicate, the efficiency of communication will be very low, far from the effect of smooth communication between teachers and students in the classroom.

c. Problems for students to practice

Unlike general education, vocational education needs to highlight occupational attributes and integrate professional ability and literacy improvement. Due to the requirements of training goals, in the classroom of vocational education, many courses require students to practice by themselves, so that students can obtain the most direct emotional understanding, so that students can truly master the relevant operational skills. [1] For example, when explaining the processing technology of the CNC lathe, students need to practice the operation on the CNC lathe according to the content explained by the teacher. By processing the parts, the teaching goal of correctly controlling the lathe and producing qualified products can be achieved. But we know that students do not have the environment and conditions to use CNC lathes at home. Therefore, the vocational education that emphasizes the cultivation of hands-on practical ability is the most prominent problem of students in the process of Internet distance teaching. It turns out that the courses that really require students to be trained are turned into “talks on paper”.

d. The problem of students' inattention in class

Students staying at home and taking classes through the Internet are lacking face-to-face supervision from teachers, which is a major challenge for many students' learning ability and learning consciousness. Through the survey of 796 vocational college teachers and students on Internet distance teaching, 35.12% of students said that the location of the class is very random, and some even lie in the bed to listen to the class. 50.55% of the students said that they would do something unrelated to the course during the class.

e. The problem that the teaching effect cannot reach the goal

The survey results show that up to 72% of teachers and 49.84% of students believe that distance learning via the Internet is not as effective as traditional face-to-face teaching. This is a very serious problem, which reflects the effectiveness of teaching. If students fail to acquire relevant knowledge and abilities in the classroom, teaching will lose its meaning and it will certainly have an adverse impact on students' future professional development.

In summary, the development of Internet distance teaching in the field of vocational education faces many problems at different levels, which requires teachers to seriously study the methods and strategies to solve these problems. Only by continuously improving the teaching ability of teachers can we solve these problems at different levels, such as methods, measures and attitudes, and guarantee the teaching quality to the greatest extent. [2]

**3. ANALYSIS OF THE MIXED TEACHING MODEL
OF VOCATIONAL EDUCATION UNDER THE INTERNET**

Using the mixed teaching model can effectively solve many problems arising from the Internet distance teaching process and improve the teaching quality.

Mixed teaching mode refers to the combination of two or more teaching modes for different majors, different teaching contents and different teaching objects in teaching practice, which is used to make up for the deficiencies of a single teaching mode and make the teaching effect get effectively improve the teaching model. This mixed teaching model must be fully considered with the characteristics of vocational education in teaching design.

a. Set teaching goals

To use the Internet distance teaching method, we must first scientifically set the teaching objectives. In addition to meeting the requirements of the talent training plan, this setting also needs to adapt to the characteristics of distance learning and consider the efficiency and effectiveness of student learning.

In general, when setting this teaching goal, the focus and difficulty of teaching should be placed first, and it should be set according to the knowledge and ability acquired by students through teaching. The set knowledge goal, ability goal, quality goals and sustainable development goals are clear, have scientific and reasonable levels and logic, have strong operability, and can be achieved through teaching. [3]

b. Choose the right teaching model

Among the many teaching modes, which one is the most suitable for Internet distance teaching? Which can achieve good teaching results in teaching? The answer may not be which kind of mode, it is quite possible which is a combination of several modes, we call it mixed teaching mode.

For example, the Internet Distance Teaching for a certain specialty can combine the ability based teaching mode with modular teaching mode, task driven mode, flipped classroom mode,

etc. In this way, it not only makes up for the deficiency of single teaching mode, but also makes teaching more lively, so as to attract more students' attention to the classroom, greatly improve the degree of students' active participation in classroom teaching, so as to greatly improve the teaching effect. [4]

c. Well-designed teaching process

An excellent course comes from excellent course design. Such courses can fully demonstrate the value orientation of modern vocational education ability-based, effectively enhance students' professional core competence and professional literacy, deeply stimulate students' interest in learning, and enable students to actively study effectively. [5] But without carefully designed teaching, it will make people feel boring and tasteless, making people lose interest in learning. Especially for Internet distance teaching, without teachers' face-to-face supervision, a course that is not well-designed is often very likely to cause students to be "distracted". It is not surprising that students do something unrelated to the course when they feel uninterested too. Perfect teaching design can refer to the following process to design:

i. Divide the structure of one lesson

The structure of one lesson is very important, it is related to the success of one lesson. Considering that students in vocational schools have poor theoretical foundations, but they have extremely strong hands-on skills and have a strong desire to show themselves and improve themselves. On the basis of in-depth study of teaching goals, this article designs the course structure diagram. (See Figure 1)

It can be clearly seen from Figure 1 that in this course design drawing, a variety of different teaching modes such as flip classroom and task-driven are integrated, thus forming a mixed teaching mode. The application of the mixed teaching model will be more conducive to seizing the students' excitement and enable students to actively participate in the teaching process. When their attention is completely attracted by the course, it also shows that the course design has been successful.

ii. Engage students to participate deeply in teaching

Aiming at the structure design of the course, the purpose is to enable students to have a platform to participate in the teaching process. Students can only receive good teaching results if they devote themselves wholeheartedly to teaching. So, how to involve students deeply in teaching?

In fact, in the example shown in Figure 1, each link can be designed with a very powerful interactive link to allow students to fully participate in the teaching. For example, in the "Task release" section, teachers can, according to the teaching requirements, not only allow students to fully preview the textbook for the next lesson, but also design several experiments related to the course content, allowing students to choose one according to their own situation. To do this, students can record by shooting videos or images when doing experiments, and play it in the next class, so as to share knowledge achievements, technical achievements, and ability achievements with other students. [6] This kind of classroom content is real and lively. Students will have a deep interest when they share or feel the experience shared by other students. Teachers can correct the results after the students share the results to ensure the correctness of the students' knowledge. For another example, after students share, they can use the remote education software to let all students vote on the results shared by this student. In this way, each student is both an interpreter of knowledge and an evaluator of learning effectiveness. In such an environment, students not only receive knowledge in one direction, because every student can

show their talents in this environment, thus transforming learning into a process for everyone to discuss, exchange knowledge and improve ability and quality. Through such curriculum design, students' initiative in learning will be greatly improved, and their knowledge and skills will be more solid, which can promote the further improvement of teaching effects. [7]

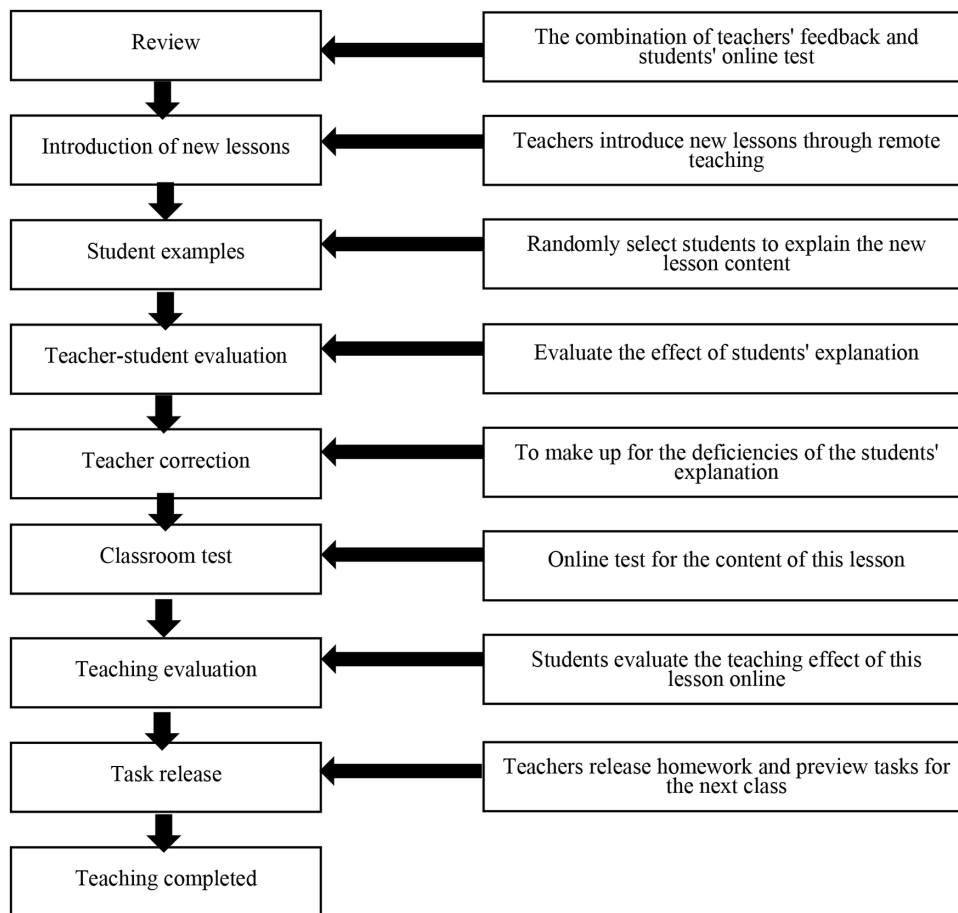


Figure 1: Course structure design drawing

iii. Make full use of distance teaching software

The distance teaching software can be divided into two categories: one is the teaching software based on network application, this kind of software provides the basic platform and powerful management function for the distance internet teaching, can realize such as establishing the live broadcast classroom, setting the live broadcast classroom type Student attendance management, learning resource management, online testing and evaluation, setting real-time communication area and many other practical functions. Such as Wechat, DingTalk, Learning Through, Blue Cloud Classes and so on. The second type is the simulation software based on the equipment and process flow which is widely used in enterprises. This kind of software can simulate the simulation work of the related equipment realistically on the computer, so that students can carry out the simulation operation through the computer, in order to achieve the familiar operation. For example, various CAI, CAM systems.

In the teaching process, teachers should carefully prepare the relevant simulation software and release it to students in advance according to the teaching requirements, so that they can practice the basic operations of the software in advance and improve the efficiency of classroom teaching. Of course, you can also use the form of MOOC to form a systematic and comprehen-

sive MOOC professional course to help students understand relevant knowledge. [8] However, at present, these teaching simulation software and MOOC course resources still have major deficiencies and defects in terms of type, function, and quantity, still need to make great efforts to improve, in order to truly meet the needs of distance education.

d. Formulate scientific curriculum assessment methods

The curriculum assessment and evaluation mechanism is the most effective driving force for teaching quality. The results of assessment and evaluation directly reflect the quality of teaching. Teaching has never been just referring to teachers or students, so the evaluation of teaching should also be aimed at two aspects: for students who are taught and teachers who are for teaching. In these two aspects of assessment and evaluation, special attention should be paid to student self-evaluation and student evaluation of teachers. The reason for this is that the evaluation results can be obtained more objectively, and it also reflects that students are the main body of teaching work.

For example, a long-distance Internet course can be based on students' check-in, review tests, participation in the teaching process, and new knowledge tests to obtain the results of this class. Teachers can also use the evaluation questionnaire issued after class to understand the teaching effect of this course, and adjust the implementation of future teaching work according to the feedback of students. [9]

3. PRACTICE PROCESS OF MIXED TEACHING MODEL OF VOCATIONAL EDUCATION UNDER THE BACKGROUND OF INTERNET

Vocational education leaving the training base and factory, using the Internet to carry out distance teaching, will cause many inconveniences for teachers and students, and form a big challenge in a special time. However, on the premise of factory shutdown and school suspension, we should give full play to the advantages of the Internet, make use of the advantages of computer-aided teaching, so that students can master professional knowledge and skills as much as possible, and lay a solid foundation for them to adapt to the academic requirements as soon as possible after returning to school.

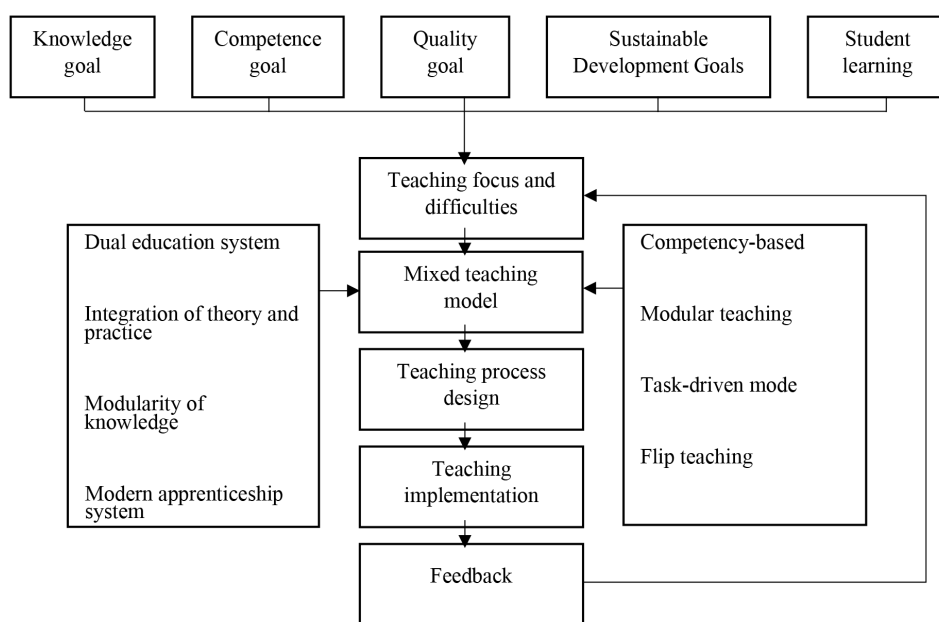


Figure 2: Practice process of mixed teaching model of vocational education based on internet

Based on the above analysis, this paper summarizes the practice process of the mixed teaching mode of Vocational Education under the background of Internet. (see Figure 2)

4. FUTURE RESEARCH DIRECTIONS

Firstly, because vocational education is more complicated than general education, the content to be explored includes research on educational methods under the premise of different majors, different levels, different courses, and different teaching environments, so that better teaching can be received effect.

Secondly, the best teaching process is a two-way interactive process, which embodies a good way to transform knowledge and skills from „teacher can” to „student can”. In the process of Internet distance teaching, more two-way interactive mechanisms should be incorporated, including the use of virtual reality technology to achieve virtual scene teaching, which will be more conducive to enhancing the effect of knowledge transfer and ensuring the effectiveness of teaching. [10]

Of course, the extensive application of Internet teaching in vocational education can make up for many deficiencies in traditional teaching, thereby enhancing the enthusiasm of students to actively participate in learning, helping them to better acquire knowledge and ability, and continuously improve the quality of education and teaching.

5. CONCLUSION

In the Internet era, online teaching has become a useful complement to various teaching methods, enriching the form and content of teaching, so that students can receive education anytime, anywhere, master knowledge and improve their abilities. Especially in the special period of the current large-scale epidemic in the world, it also reflects the unique advantages of this teaching method. However, Internet teaching also has shortcomings. Students receiving Internet teaching must first have a correct learning attitude and self-discipline ability. At the same time, they also need teachers to study teaching methods carefully and adopt a mixed teaching model to maximize students' enthusiasm for learning, enrich and improve Interactive links improve the evaluation method to make students more willing to accept this teaching method, and can really improve their professional qualities through this teaching method.

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