

Analysis on the Application of Micro-course in the Teaching of Computer Basic Courses in Colleges and Universities

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Abstract: In recent years, computers have gained popularity in various industries, and the demand for computer operating capabilities of employees has also increased. As an important place for cultivating talents for the society and the country, colleges and universities need to pay attention to the teaching of computer basic courses, so as to ensure that graduates can meet the requirements of employers. This paper expounds the meaning of micro-course and the characteristics of micro-course, studies the current teaching situation of computer basic courses in universities, and explores the application of micro-course in computer basic teaching.

1. Introduction

At this stage, computers have become an essential equipment for people's daily life and work. University computer basic teaching is very important for cultivating and improving students' computer operation ability. Chinese universities have set up computer basic courses (all students need to learn), the purpose is to improve students' basic computer knowledge and operational ability, and lay a solid foundation for students to study and work in the future. With the continuous development of science and technology, if traditional teaching methods will directly affect students' interest in learning, colleges and universities need to reform teaching methods (for example, using micro-course for teaching) to improve the quality of computer-based teaching.

2. Meaning of micro-course

Micro-course refers to the fragmentation of teaching content and the use of information technology to produce digital resources for teaching. Teachers can divide the knowledge points into multiple small knowledge points according to the teaching objectives of the course, and make the teaching focus and difficulty into video, thus gradually forming a complete curriculum. The micro-course includes a number of questions in the teaching, questions from the students, and teacher comments. Micro-course can simplify the teaching content, stimulate students' enthusiasm for learning, and improve teaching efficiency and quality. Micro-course can be used not only for classroom teaching, but also for online platform playback, so students can watch instructional videos anytime, anywhere. In addition, teachers can learn the advanced teaching experience of other teachers by watching the video of the micro-course, which is of great significance to improve the

quality of teachers' teaching.

3. Characteristics of the micro-course

Teachers can record the knowledge points in the basic computer textbooks as micro-course videos, which can include a certain knowledge point in computer basic teaching, or can also reflect on teaching, so as to gradually form a complete computer-based curriculum for teachers and students to watch.

Unlike the traditional teaching model, the micro-course has the following characteristics:

Less content. In the course of the university computer basic course teaching, most of the micro-course are videos with a time of 5 to 8 minutes. Most of the videos involve a certain knowledge point, which is consistent with the student's visual parking law. Each micro-course video involves a knowledge point, which mainly includes the theory and related resources of this knowledge point. It is precisely because the micro-course video time is short, it is about 10 megabytes, students can watch the micro-course video learning through the Internet.

The theme is more prominent. The micro-teaching method is different from the traditional teaching method. Each micro-course video will explain a knowledge point, or research on a teaching theme, so as to ensure that the micro-course video theme is prominent. At the same time, the content and resources involved in the micro-course video are consistent with the theme, which can effectively improve teaching efficiency and effectiveness.

Semi-structured. In the process of micro-course video production, video design and selection for a certain knowledge point, and the integration of relevant resources and knowledge points into the micro-course video, thus forming a structured teaching resource, all micro-course video combinations will form a complete teaching system. (It is vastly different from traditional teaching methods). Therefore, the micro-course video has semi-structured features, and its theme is clear, which is consistent with the teaching objectives and syllabus requirements. Teachers can modify and expand the video of the micro-course according to the teaching requirements to meet the teaching requirements.

The results are simplified. Because the micro-course video theme is prominent, students can quickly understand the knowledge points contained in the instructional video; because the micro-course video is relatively simple, students can use the Internet, mobile phones to watch and study teaching videos.

Feedback is timely. In the short micro-course video, a certain knowledge point can be presented to the viewer, and the producer can timely obtain opinions and suggestions of others on the micro-course video that they have made. With traditional listening and evaluation activities, the timeliness is strong. Using this kind of teaching method can effectively stimulate students' enthusiasm for learning and improve student participation, which can effectively improve the classroom teaching effect.

4. The teaching status of computer basic courses in colleges and universities

4.1. Students self-study

After the teacher completes the micro-course, he needs to transfer it to the online teaching platform to provide teaching resources for students to self-study. Students can use mobile phones, computers and other equipment to enter the online teaching platform to watch the micro-course video and practice on their own. For example: the micro-course video produced by Flash. In the micro-course video, it mainly includes: Flash animation production, timeline usage and other content. Students can learn and master these knowledge points by watching the video of the micro-

course. If it encounters problems that cannot be solved in self-study, it is necessary to ask the teacher through the online teaching platform, or to establish a discussion group, and several students will discuss how to solve this problem, which has a certain effect on improving the computer level of the students.

4.2. Classroom teaching

The micro-teaching method divides the whole teaching activity into two parts: self-learning and classroom teaching. Teachers can explain the basic knowledge of computers according to the textbooks and micro-course videos, and the students can carry out their own exercises to guide students to master computer skills. In the teaching process, teachers not only need to explain the basic theoretical knowledge and basic skills of the students, but also need to summarize the problems encountered in the self-study process and explain them.

During the self-practice process, the teacher needs to observe whether the students have problems during the practice. If they find that they have problems, they need to use the side guidance method to guide the students to discover the problems in their practice. In addition, in order to ensure that students can fully grasp the basic knowledge of computers and operational skills, teachers need to arrange for students to practice after class.

5. The application of micro-course in the basic teaching of computer in colleges and universities

University computer basic courses have higher requirements for students' practical ability. Therefore, in the teaching process, teachers not only need to explain relevant theoretical knowledge for students, but also need to guide students to practice and practice. In order to effectively improve the teaching effect and improve students' computer application ability, it is necessary to apply the new teaching method of micro-course to the teaching process of computer basic course, rationally apply various teaching resources and improve teaching quality.

5.1. Micro-course production

In order to properly apply the micro-course video in the basic teaching of computers, teachers need to make micro-course videos before teaching. When a teacher produces a video of a micro-course, it is necessary to ensure that it can stimulate students' enthusiasm for learning. Therefore, the following should be noted:

Refine the knowledge points. The study found that there are fewer theoretical knowledge points involved in the computer basic course, which is mainly to cultivate students' computer operation ability, and gradually advance these knowledge points from shallow to deep. When the teacher produces the micro-course video, the content of the textbook needs to be divided into several small knowledge points in detail, and the micro-course video is designed and produced for each knowledge point (for example: text setting, paragraph setting, header and footer section setting, etc. They can all be made into micro-teaching videos);

Write instructional design. After determining the video knowledge points of the micro-course, teachers need to clarify their teaching objectives (such as: knowledge goals and ability goals). At the same time, they need to analyze the basic level of students' computers, choose the most appropriate teaching methods, and compile micro-course scripts. When designing a micro-course script, teachers can follow the following process: First, introduce knowledge points appropriately. Teachers can set the corresponding questions through the actual problems encountered by the students at the beginning of the micro-course video to stimulate students' interest in learning. For

example, students may encounter problems that the catalog does not automatically update. Teachers can ask this question at the beginning of the micro-course video and introduce knowledge points. Second, explain the relevant knowledge points. In this session, teachers need to focus on the content related to the knowledge points, and draw relevant knowledge points to guide students to master relevant knowledge and operations, and solve the problems raised at the beginning of the micro-course video; finally, summarize the video of this micro-course. The main points of knowledge involved will deepen students' understanding of it.

Record a micro lesson video. Teachers need to study the content of instructional design. If you need to use the micro-course video for teaching, teachers need to search for related video and picture teaching resources, and use the camera and screen recording software to record the micro-course video. In order to ensure the efficiency and effectiveness of teaching, teachers need to ensure that the video of the micro-course can stimulate students' enthusiasm for learning. Teachers should pay attention to the following when recording the video of the micro-course: First, the teacher needs to ensure the texture and beauty of the micro-course video to ensure that it can attract students' attention. Therefore, teachers need to study in depth how to make reasonable use of teaching resources and what kind of recording method. In order to effectively enhance the aesthetics of the micro-course video; secondly, the micro-course video needs to adopt a combination of dynamic and static. In order to effectively improve teaching efficiency and teaching quality, teachers need to use a combination of dynamic and static to produce micro-course videos (dynamic pictures can attract students' attention; static pictures can give students time to think).

Edit the micro lesson video. In order to ensure the quality of the micro-course video, the teacher needs to edit the micro-course video, such as: adjust the micro-course video, set the background music, animation and so on.

5.2. Construction of computer basic course micro-teaching platform

Since the classroom teaching time is 45 minutes, the teacher needs to use the method of explaining and explain the computer to teach the basic course. Due to the different levels of students' computer basics, some students can quickly understand the teacher's intentions and master the operation points, and hope to learn more in-depth knowledge; but some of the weaker students need teachers to explain this knowledge. If teachers do not pay attention to this problem and solve this problem, it will have a negative impact on students' enthusiasm for learning. In order to avoid this problem, in the actual process, colleges and universities can build a micro-course teaching network platform for computer basic courses, teachers can share teaching resources (such as: micro-course video, course plan, course design, etc.). For some students who have poor foundation and cannot master relevant knowledge, they can watch the micro-course video or multimedia materials through mobile phone or computer to master these knowledge points. For some students with better foundation, teachers can use the computer-based course micro-teaching teaching network platform. Sharing more in-depth micro-course video and teaching resources, students can watch micro-course video and teaching resources independently, which is of great significance for expanding students' knowledge and improving their self-learning ability.

In addition, the computer basic course micro-teaching teaching network platform can also provide online communication platform for teachers and students of colleges and universities. When students encounter problems, they can consult teachers in time through the platform, thus enhancing communication between teachers and students and stimulating students' enthusiasm for learning. To improve their learning efficiency.

5.3. Reasonable application of micro-course

First, introduce a micro-course video. In the classroom teaching process, using one or more micro-course videos can attract students' attention, which is very important to improve teaching efficiency and effectiveness. For example, teachers can play micro-course for students in the process of downgrading computer technology to students. Video, which can effectively attract students' attention and stimulate their interest in learning. When teachers explain computer security knowledge to students, teachers can show real online banking theft news to students through micro-course video to create a real situation. Students watch video, analysis and discussion, teachers explain computer security knowledge, can improve students' mastery of computer security knowledge, and at the same time develop students' self-learning ability;

Second, release the micro-course video. Teachers need to publish micro-course videos for teaching. Students can watch the micro-course videos independently to understand relevant knowledge points and master the knowledge point system and structure;

Finally, ask the question. Teachers need to follow the micro-course video to ask questions that are closely related to students' study, life and work. Students need to solve these problems independently, which can effectively stimulate students' enthusiasm for learning and improve their self-learning ability. For example, when students write graduation thesis, you need to set the headers, footers, etc. of different chapters.

6. Advantages of applying micro-course in computer basic teaching

Compared with traditional teaching methods, micro-course has the following advantages:

Inspire students to learn enthusiasm. Teachers can use the micro-course video in the teaching process to create corresponding situations for students, and use interactive teaching methods to strengthen communication and communication between teachers and students, thus maintaining a good teaching atmosphere and enhancing students' enthusiasm for learning;

Achieve stratified teaching goals. Students can watch the micro-course video played by the teacher in the classroom teaching. After class, they can choose the appropriate micro-course video to watch according to their own knowledge, so that the stratified teaching goal can be achieved. In short, if the students do not have the content of the classroom teaching, they can repeat the micro-course video and practice to ensure that the students can master the relevant knowledge; if the students have mastered the classroom teaching content, they can choose to watch the more in-depth micro-course video to expand their knowledge. Only in this way can students ensure that they have mastered the teaching content and have a certain interest in learning computer basics;

Break through time and space constraints. With the development of science and technology, the popularity of the Internet is also increasing. Many students use smart terminal devices to find the information they need. This is also the basis for promoting the teaching method of micro-teaching. The computer basic course micro-course teaching network platform is saved by a large number of micro-course videos or micro-questions. Students can watch these teaching resources in their spare time and practice on their own, which can effectively improve students' self-learning ability;

Ensure the relevance of teaching. When students learn the basics of computers, they will inevitably encounter some problems. In the process of teaching, teachers need to ask these questions, which can effectively stimulate students' enthusiasm for learning computer basic courses. Students can learn how to solve these problems by watching the micro-course video played by the teacher. This has a certain effect on improving the computer level of the students. For example, the teacher can set the question before teaching. "The pictures in the webpage must be saved one by one? Is there a more convenient way? Students need to actively think about these issues and study relevant teaching resources. Students can answer these questions on their own, and they can develop

students' self-learning ability and innovative ability.

Can strengthen communication between teachers. In the course of preparing lessons, teachers can watch related micro-course videos, learn and learn from other teachers' teaching methods, and analyze the shortcomings in the micro-course video to improve the micro-course video. Through the communication between teachers, teachers' professional level and professional quality can be effectively improved.

7. Conclusion

In summary, micro-course is a new type of teaching, which respects students and values the subjective status of students. Using this method to teach can effectively stimulate students' enthusiasm for learning and improve teaching quality. At the same time, the use of micro-teaching can rationally integrate and deploy various teaching resources and share various teaching resources, which can effectively improve teaching efficiency. Teachers need to correctly understand the meaning of micro-course and their application methods, and apply micro-course reasonably in the process of computer basic courses.

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