

Application of Micro Lesson in "Basics of Computer Application" Teaching

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Abstract. With the development of information technology, modern educational technology taking multimedia and network applications as the core it has been deep into all aspects of education and teaching. Currently, the college course, "Basics of Computer Application" is undergoing the important transitional period of gradually transforming into application-oriented from popularization-oriented. Guided by industrial application, its role in "Basics of Computer Application" teaching has become increasingly apparent. In this context, use application-oriented micro-lesson teaching method to discuss existing problems of "Basics of Computer Application" and application of course application.

Introduction

"Basics of Computer Application" is the basic course of higher vocational colleges. Through the course of study, students are familiar with computer hardware and software environment, skilled in management and operation of Microsoft operating system files, and able to use Office software for processing services and improving office efficiency. It lays the foundation for specialized courses of students. This course is opened for higher vocational college freshmen. Most of students have uneven level of computer basics when they go to colleges. This course has less class time, more knowledge modules, and it focuses on practical application. But many freshmen do not have computer and they cannot well prepare before class, review and consolidate after school. In addition, most students do not pay enough attention to this course, resulting in that course teaching of "Basics of Computer Application" does not achieve the desired effect.

With the development of information technology, and the rapidly growing popularity of smart phones, microblogging, micro-channel, micro-film, micro-video and other "micro" elements become an indispensable part of our lives and the micro-lesson teaching is gradually coming into college classrooms. As a new learning tool, micro lesson is aimed to elaborate certain knowledge point in the main form of short but capable videos. Teaching videos for the purpose of learning or teaching application usually include corresponding instructional design, courseware material, practice evaluation, teaching reflection core and key, feedback from students and other teaching support resources, constituting a semi-structured and theme-highlighted resource utilization "ecological environment."

Connotation and difference of class and micro lesson

Connotation of class and micro lesson

In the school classroom, teachers and students say "class", and "a class" refers to the organization way and basic unit of class collective teaching universally conducted by the current school education. The main work and teaching activities of the school take class as the subject and class is the core of daily teaching work. In the academic monograph of classical teaching theory, the "class" is defined as: "the organized teaching process unit with limited class time and its role is to achieve a comprehensive, yet localized teaching purposes".

Observe and analyze the composition of a class, including teacher - student - teaching purpose - teaching material- all kinds of digital media - teaching activities organization- teaching methods-

teaching evaluation and feedback - learning environment and other factors, forming a complex system, and various elements of the system are interrelated and interactive, constituting life activities of teaching system.

"Micro-lesson" concept corresponding to "class", is a new concept recently emerging from "flipped classroom". Last year, when we noticed that in Khan Academy courses are short "small" courses imparting knowledge points, we began to call "micro-video" for students' independent learning and teachers' teaching as "micro lesson". It was discovered later that for just a "micro-video", if the organization way of the classroom is not changed, such "micro-video" is still stuck in "combination" thought in the 20th century, which is about to slice classroom recording video and make various teaching pieces, with the purpose of being used as teaching resources supporting teachers' teaching, or for "Microteaching" for professional development of teachers and teaching reflection. However, in the new "flipped classroom" teaching process, "micro-video" for students' independent learning and teachers' teaching has become indispensable component of independent learning. Therefore, in the project of teachers training flipped classroom, according to the systematic perspective of teaching theories, we define "micro lesson" as: "micro lesson" is a small course within 10 minutes, with clear teaching objectives and short content, concentratedly describing one problem.

Difference of class and micro lesson

Micro lesson is the video course within 10 minutes, made by use of computer multimedia technology based on standard basic courses. Emergence of "micro age" results in that application of micro lesson into teaching becomes an inevitable trend. Then, what's the difference between micro lesson and traditional classroom teaching?

(1) The effective time. Traditional classroom teaching hours are 40-45 minutes, difficult for students to concentrate on lectures for a long time, and operability of "Basics of Computer Application" is strong, so students cannot keep up with teachers' demonstration, or students do not pay attention certain step in the demonstration of teachers, leading to that the following operation is not smooth, and students are unmotivated for practice. Micro lesson has short teaching time, fast direct to the point, with strong application scenarios, able to more quickly attract students to make them quickly enter the learning state.

(2) The teaching content. A traditional classroom lesson includes much knowledge content, and students digest more slowly, while a micro lesson is targeted to explain the certain knowledge point in the process of teaching, and students easy to accept and understand.

(3) Motivation to learn. Traditional classroom teaching is one to many, mainly focusing on teachers' explanation, which micro lesson is the scene teaching, suitable for students to ask questions and autonomous learning. Students can preview before class and review after class, and also selectively choose the content they are interested in for learning.

(4) The learning facilitation. Traditional classroom teaching cannot extend the content to after school. The micro lesson can be easily stored in the phone, so students can use their fragmented time for learning.

(5) The flipped teaching. Traditional classroom teaching is "teaching first, practice later", which means after teachers finish knowledge explanation, students take practice. While the micro lesson can flip classroom teaching, letting students learn untaught knowledge points, and then practice in the classroom.

(6) Training the comprehensive ability of students. Computer application courses have more knowledge points and strong operability. Although micro video facilitates students to understand the knowledge, but the ability to use knowledge of students still needs to be trained in the classroom.

In summary, the micro lesson and traditional teaching have its own advantages and disadvantages, therefore, it is necessary to organically combine these two and complement each other, which not only can overcome the shortcomings of traditional teaching, but also fully play the advantage of traditional teaching, easy to train students' comprehensive ability.

Existing problems of "Basics of Computer Application" course teaching

Levels of students' computer basic knowledge are different

Currently, "Basics of Computer Application" has been opened in our higher vocational colleges. This course can not only help students have the knowledge base of computer skills, but also guide students to improve their own level of information application, thereby improving their professional learning ability. Under normal circumstances, this course is opened for freshmen. Although with the continuous improvement of people's living standards and the popularity of computer application, the majority of urban and rural families can buy a computer, which has created many opportunities and conditions for students to contact with a computer and learn computer knowledge, yes a lot of family cannot afford a computer because of weak economic strength, especially in rural areas, which leads to the uneven and various levels of students' basic computer knowledge.

Teaching resources are not balanced and not used fully

There are a large number of colleges and universities in China, and there is a big difference in the level of education and teaching resources in colleges and universities. Even in the same school, teachers of "Basics of Computer Application" are different. These differences to a certain extent lead to the unbalanced development of teaching resources and underutilization, thus affecting the effectiveness of course teaching.

Application of micro lesson in "Basics of Computer Application" teaching

Smart phones are increasingly popular, and almost all students can have a smart phone. How to play the role of the phone in teaching and make students eager to learn? Application of micro lesson in "Basic Computer Application" is a good teaching means.

Selection of micro lesson teaching content

"Basics of Computer Application" includes computer basic knowledge, use of the operating system, Office software applications and computer network knowledge and so on. Because the course covers many knowledge points, and not all knowledge points can be made for micro lessons. Those that can be understood only after teachers' explanation can be used to make micro lessons, such as Word questionnaire production, Word watermarking, Word header and footer production, Word catalog production, Excel formulas and functions, advanced filtering, pivot tables, and PPT template application, etc.

Design teaching based on course standards

"Basics of Computer Application" focuses on the application. Teachers follow course standards for carefully designing teaching process. Because this course emphasizes the actual operation, during design of micro lessons, teachers can use both PPT explanation and operation demonstration, but focus on operation demonstration to present knowledge and applications, so that students can follow to complete the operation, and visually and directly understand important and difficult points of this course. Excel formulas and functions are the important and difficult point in this course, and students always cannot learn well about this part. Each time when teachers explain Excel formulas and functions, and after teachers finish the demonstration, students can complete the operation according to the steps of teachers in the class, but because they do not really understand the function and application of these functions, the meaning of each parameter in functions, differences and applications of the cell address absolute references relative references and mixed references, resulting in they will forget how to use soon after school. For example, the meaning of the parameter in sorting function Rank (), column lookup function Vlookup () and database statistical functions, not to mention what parameters need to use absolute references or relative references, or nested functions. The author uses this part to make micro lessons to allow students to self-study before class, propose actual projects in the classroom and let students practice, such as help the teacher to make a

performance statistics table, and help the school administration department to make faculty information statistics tables. Allow students to preview micro lesson related knowledge before class, let students to complete in groups in the class, combine with textbook knowledge, then let students discuss with each other, finally complete the project under the guidance of teachers. Students solve practical problems, and also learn new knowledge. As students acquire knowledge through self-study and discussion, students have deep impression. Assign some homework after class, and allow students to further consolidate skills.

Making of micro lesson

1. Prepare making tools and software. Prepare computer, headset (with microphone), and video recording software, such as Camtasia Studio, screen video experts, as well as PPT courseware.

2. Making process. First, for the selected teaching content, prepare teaching materials, such as Word watermarking courseware and material, including micro assignments. Secondly, turn on the computer, connect with the headset, adjust the volume and position of microphone, adjust the position of PPT interface and recording screen, open simultaneously recording screen software and PPT courseware on the computer, start recording. According to teaching design, teacher demonstrate and explain, target knowledge points of PPT courseware, combine with related material for production presentation, use recording screen software to directly record operation interface window and PPT courseware content, complete micro video making. Thirdly, beautification process of micro video. After recording, the micro video needs editing and beautification, including sound image coordination, image adjustment, subtitling, head and end design making.

Reflection of micro lesson classroom

When reflecting on micro lesson classroom, we need to summarize and reflect on the overall situation of micro lesson teaching. Reflection on the teaching includes, teaching methods and instructional design is reasonable? How is the actual teaching effect? And what aspects can be improved or promoted? This allows re-understanding and improving subsequent micro lessons, to promote the level of micro lesson classroom.

For example, after micro lesson of "Word questionnaire production" is finished, pay attention to the exchange between teachers and students. After students learn in the classroom, they can instantly communicate with teachers through QQ, micro-channel or micro-blog, etc. thus avoiding the helpless self-learning of students and fully playing the guiding role of teachers. Finally, we can also take advantage of the knowledge of this lesson, and arrange micro assignments which need students to combine with the actual needs to make other questionnaires.

Conclusion

In summary, the characteristics of micro lesson can fully compensate lacking promotion of "Basics of Computer Application", which can sufficiently improve students' interest in learning, but also attract students' attention, ultimately to enhance students' learning effect. So when we use micro lessons to carry out higher vocational course of "Basics of Computer Application", we should start with micro lesson making, systematic teaching focusing micro lesson, and micro lesson sharing, to give full play to the role of micro lesson in "Basics of Computer Application".

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