Research on the Application of Computer Micro-Course in Teaching e-Commerce in Higher Education

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Abstract. The rapid development of Internet technology has brought us into the "micro era", "micro" means fragmentation and autonomy, microblogging, weibo, micro movies and micro novels meet people's fragmented entertainment needs, and micro class is also on the rise. And as the development of micro-lessons becomes more and more mature, now Chinese schools are facing more of a problem not of micro-lessons themselves, but of how to land them in Chinese schools. Based on this, we take the campus mall operation - product uploading course of senior e-commerce majors as an example to explore the application of computer micro-lessons in senior e-commerce teaching.

Keywords: Computer Microcourse, Higher Vocational Education, E-commerce Teaching, Application

1. Introduction

Micro-lesson and mullet are different concepts. Jiao Jianjian of South China Normal University defines micro-lesson as an online teaching video with the goal of elaborating a certain knowledge point in the form of a short and concise online video presentation for learning or teaching application. In a short time, within 20 minutes (usually 10 minutes, which is said to be based on the principle of brain science), a knowledge point is explained, which is more effective than a traditional classroom. Because micro-lessons have fewer points of knowledge, they are easier for students to grasp. And after making a course series into a curriculum, the resulting guide and micro-course can better facilitate teachers’ classes and learning to master knowledge [1]. And in the current situation of unequal educational resources, with the Internet technology, you can use the Internet to learn knowledge from across the ocean (catechism) without leaving home, or to learn to consolidate knowledge points for better learning. In fact, before the concept of micro-lessons entered China, we have already produced micro-lessons, but not in the traditional classroom, such as video tutorials on the Internet, which is micro-lessons, one of the earliest micro-lessons in China.
2. The meaning, characteristics and significance of micro-course

2.1. Meaning of micro-lesson

"Micro-lesson" is a short and complete teaching activity of a teacher around a knowledge point or a teaching link, which is recorded by video as the main carrier.

2.2. Characteristics of micro-lesson

First, the teaching time is short. Why should a "micro-lesson" video be less than 10 minutes long? This is based on the statistics of foreign Khan courses and the research of brain science. In general, people's attention span is about 10 minutes [2]. Therefore, compared with the traditional 45-minute lesson, the duration of micro-lesson is generally less than 10 minutes, which is convenient for students to focus on learning knowledge quickly in a short period of time.

Secondly, the content of micro-lessons is carefully designed by selecting the topic of micro-lessons. The content of micro-lesson is mainly to highlight a certain subject knowledge point in classroom teaching, such as the key points and difficulties in teaching, or to reflect a certain teaching link and teaching theme in classroom, so that students can quickly understand and master the relevant knowledge points by watching micro-lesson.

Third, the capacity of resources is small. Because the "micro-lesson" video and supporting resources are short, about ten minutes, the total capacity is generally in the tens of megabytes, so it is easy for students to watch online or download through various terminals.

Fourth, the learning time is flexible. Micro-lessons are not restricted by the traditional curriculum and lecture time, and can be watched 24 hours a day as long as there is Internet, PC or mobile terminal. It makes up for the regret of students who did not hear the lecture of relevant knowledge points in traditional lectures for some reasons, and enables students who do not understand certain knowledge points to achieve understanding and mastery of knowledge by watching micro-lessons of relevant knowledge points repeatedly [3].

2.3. The significance of microlearning

Microlearning is a product of the combination of information technology development and the era of educational change, and is an advanced stage of integration of technology and teaching applications [4]. Microlessons are both a useful supplement to the traditional lecture mode and can stimulate students' learning initiatives.

For teachers, the emergence of micro-lessons further promotes the modernization and networking of education, and through the design of teaching content and the use of relevant technology for micro-lesson production: on the one hand, teachers are encouraged to continuously improve their own research and teaching level in order to produce more refined and innovative micro-lessons; on the other hand, the improvement of teachers' own research and teaching level will enhance the level of traditional lectures and micro-lessons. The two complement each other and promote each other.
For students, micro-lessons, as a useful supplement to traditional lectures, can better meet their personalized learning needs. Whether it is to explore new knowledge or to review what they have learned, as long as students have the conditions to watch micro-lessons, they can watch them 24 hours a day and motivate their learning initiative, learn by watching and improve their knowledge application ability.

3. Micro-course development process: Take the example of Campus Mall Operation - Product Uploading Course for Higher Vocational E-Commerce Majors

3.1. Micro-course selection

Firstly, it should be designed reasonably, mainly around the key points and difficulties in the teaching of the subject (profession); secondly, it should be practical and interesting, the selected topic should have strong relevance, novelty and interest, and be attractive to students; finally, it should master the degree of difficulty, the teaching knowledge points are not broad, and the selected topic is appropriate and inspiring. The uploading of goods is from the knowledge point is one of the key points and difficulties of the professional course of campus mall operation, the uploading of product information, product pictures and product details page is directly related to the display effect of the goods, which will eventually affect the sales performance of the goods and the entire mall operation.

3.2. Teaching Design

First of all, relying on the UMALL network platform project combined with the requirements of e-commerce enterprise job competency, the campus mall practical training team and job grouping, through the commodity shooting, Photoshop software image processing, product upload and other operational skills training to enhance the students' campus mall operation practice ability. Secondly, there should be clear teaching objectives, teaching focus and difficulties highlighted, and the difficulties explained cleverly. The goal of this micro-lesson is to enable students to master the process of uploading product images and uploading products in the background of the website through the course lectures. There are two aspects of teaching that need to be emphasized: firstly, students are prone to uneven cutting and
unprocessed pictures when cutting pictures with Photoshop software; secondly, students are prone to incomplete input of product information and picture uploading in the process of product uploading on the website. The teaching method of micro-lesson adopts practical operation demonstration. Micro-lesson teaching content should be hierarchical, logical and arranged in accordance with students' cognitive rules. However, the teaching method is different from traditional classroom teaching, and the teaching method should be unique and innovative. The teaching process also follows introductory and novelty, with logical explanation, accurate language expression, and concise language. The teaching evaluation is flexible, leaving exercises or inspiring reflection questions, and focusing on teaching summary and induction.

In this micro-lesson, first of all, a product detail page is introduced, and how to use Photoshop software to slice the product detail page, so as to split the original large and long picture into small pictures for uploading on the Internet; after that, you can log into the backstage of Campus Mall, enter the product management, click Add Product in the product list, and enter the category, type, product name, product introduction, product number, and product information in the new product. After that, click Add Product in the product list, enter the product category, product type, product name, product description, product number, product keyword, unit of measurement, sales price, inventory and other information, and upload the pre-prepared small image of the product and the cut product detail page to the website, then check the accuracy of the product text and image information, click Save to submit; then go to the front desk of the campus website to check the effect of the successfully uploaded product display, and near the end of the course, assign the task for At the end of the course, students were assigned the task of uploading a product to the Campus Mall website according to what they had just been taught. Through this course, students can master the skills of cutting pictures and uploading products on the website, which will lay the foundation for future employment diversification and achieve the expected purpose of the course.

3.3. Micro-class technology

Camtasia Studio, as a common screen recording software, is a special tool for capturing screen video and audio, which can record screen action in any color mode, including image, sound effect, mouse movement track, narration sound, etc. It also has instant playback and editing and compression functions, and can edit video clips for editing, adding transcription and editing. It also has instant playback and editing compression functions, can cut and splice video clips, add transitions, and generate AVI, GIF, RM, WMV, MOV, MP4, FLV, etc. MOV, MP4, FLV and other formats.

By Lectora (also known as Snap!) is the latest E-learning courseware from Trivantis Group, a leading E-learning software provider. By Lectora (also known as Snap!) is the latest E-learning courseware from Trivantis Group, a leading E-learning software provider. You can add narration, video, Flash animations, interactive modules, test questions and other effects to your PPT courseware, and publish it in HTML, CD, Flash and other formats.

The hardware includes camera equipment, audio equipment, computer and recording site, etc. The software includes recording software, editing software, production software and guide software, etc. Through the recording system can be integrated with teaching design by knowledge points, skills points recording, a strong sense of scene, can be a variety of learning technology integration applications, controlled progress learning, recording the completion of courseware capacity is small, can insert a
variety of auxiliary materials, simple and convenient operation, and can be generated in real time, instant release.

Two-dimensional and three-dimensional mainly refers to the use of animation form to produce micro-lessons. Video is the core content of microclasses, and most of them present the teaching process in the form of streaming media [5]. Since the teaching content of the Campus Mall Operation - Commodity Upload course is mainly operated on computers and websites, Camtasia Studio screen recording software is chosen for microlearning production. The production process: preparation of hardware and software, including the screen recording software Camtasia Studio, computer and microphone, etc.; the selected method is the actual operation demonstration screen recording, supplemented by audio recording; then the production process began.

The following are the details of the production process: first, collect teaching materials and picture materials for this selected teaching theme. Second, open the screen recording software, Photoshop software and website background page on the computer screen at the same time, with a good microphone, adjust the microphone position and volume, and adjust the position of the screen recording interface, click the "record" button, start recording, and explain while operating. You can match other teaching materials to make the teaching process as vivid and interesting as possible. Finally, make the necessary opening and closing design and processing of the whole video after the recording is finished. Note that the video should be played smoothly and naturally, with clear picture without noise, easy to understand language, and the recorded video teaching content should be accurate and complete.

3.4. Interaction design of micro lesson

In the micro lesson or the platform that releases the micro lesson can carry out teacher-student interaction, synchronous and asynchronous discussion, collaborative learning, online questions, feedback questions and even support the use of completed online tests and quizzes. During the classroom teaching process, teachers can make teaching adjustments based on the feedback of questions from the interactive platform [6]. Since this micro-lesson is made in the form of video recording, the teacher-student interaction session is put on the platform where the micro-lesson is released, and the completion of the task for uploading goods assigned to students will be assessed and evaluated in the actual classroom.

3.5. Effectiveness of micro-class teaching

Whether it can effectively achieve the teaching objectives, solve teaching problems, and promote students' thinking level and knowledge application ability is an important index for the evaluation of the teaching effectiveness of micro-lessons, and the promotion value can be enhanced through the evaluation of teaching effectiveness. The teaching objective of this micro-lesson is to enable students to master the image processing of uploaded products and the process of uploading products in the background of the website through the course lectures. According to the assessment of the results of the students' actual completion of product uploading in the classroom, the students were able to use Photoshop software to process the images of product detail pages and master the process of uploading products in the background of the campus mall, which achieved the expected purpose of the lecture.
The mobile Internet is quietly changing the whole world, and the traditional education and teaching mode is also undergoing profound changes. The original PC architecture of course resources, teaching mode and supporting platform can no longer adapt to the needs of mobile learning, the need for mobile terminal-oriented ecosystem re-architecture of digital course resources and teaching interactive platform. As a force for change and a useful supplement to traditional classroom teaching, microclasses meet the desire of students to learn anytime, anywhere and personalized learning. The application of microlearning in higher-level e-commerce teaching is a useful exploration to adapt to students' mobile learning and stimulate their learning initiative according to the characteristics of higher-level students. The continuous improvement of micro-class teaching level and the strengthening of interaction with students' learning can promote the improvement of micro-class teaching effect and lay the foundation of knowledge and skills for students' diversified choices of future employment [7,8].

4. Advantages of Microlearning

![Figure 2. Advantages of micro-class](image)

In teaching, it is in line with the teaching characteristics of vocational colleges and universities, with outstanding professional features, targeting the characteristics of higher vocational students, student-centered, meeting the learning needs of students, easy to understand, and stimulating students' interest in learning. At the same time, it is easy for students to watch the micro-course, and it can also realize the sharing of network resources. The micro-lesson on campus mall operation - product uploading mainly focuses on two aspects of Photoshop software image processing and website background product uploading operations to highlight the characteristics of e-commerce professional courses, so that students can master the relevant operational skills by watching the micro-lesson.

The micro-lesson should be aesthetically pleasing and in line with the learners' psychology, with reasonable video layout, uniform page style and scientific and reasonable color matching of the content of the micro-lesson. Although the micro-lesson of Campus Mall Operation - Commodity Uploading course is mainly based on practical operation demonstration, before teaching this part, it is necessary to create three aspects of online commodity title description, commodity picture description and commodity detail description for theoretical explanation, and keep the page style uniform and add screenshots and text descriptions of online commodity display to show [9,10].

5. Conclusion
From micro-video to micro-lecture, and then from micro-lecture to micro-course, micro-lesson reflects its evolution and development path. Along with the development of technology, the concept of micro-lesson and its form are not fixed and will still be improved and changed later to suit the actual needs of teaching and learning. Therefore, we can consider micro-lessons as a new teaching courseware design concept and expression form with unique functions. For e-commerce teaching in higher education, micro-lessons can better meet students' personalized learning and on-demand selection of different subject knowledge points, which can not only check the gaps but also strengthen and consolidate knowledge, and are an important supplement and expansion resource for traditional classroom learning.

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