Design and Implementation of Micro-Lecture System Based on the Applications of Information

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Abstract: The application of information technology in the field of education has changed the traditional education mode. Micro-lecture, as a new teaching method, has aroused wide attention. It is a new network course resource which aims at a certain knowledge point. Introducing it into the classroom helps to improve the teaching efficiency and optimize the classroom structure. This article introduces the application of information technology in the design of micro-lecture and its advantages at first. Teachers can use DV, screen capture software or images, animation or video production software to design the micro-lecture materials. Then the problems exist in the traditional marketing courses are analyzed. Finally, the example of marketing micro-lecture design combined with information technology is given. It includes the topic selection and design before class, combination of teaching methods with micro-lecture in class and homework design of students in combination with classroom knowledge and micro-lecture materials after class.

1. Introduction

In the information age, the rapid development of information technology and its wide application in the field of education has greatly changed the traditional education mode. In recent years, with the development of mobile communication technology, social media and the development of open education resources, micro-lecture, which is a new teaching mode with videos as the core, is rising gradually in the whole world. This phenomenon has aroused attention of researchers and teachers.

Micro-lecture, known as the micro video course, is a new network course resource which uses short videos as the carrier to teach a certain knowledge point. The duration of course core videos is usually 5-8 minutes. Meanwhile, the micro-lecture also includes supporting learning contents which correspond to videos such as instructional design, material courseware, practice tests, expert reviews, teaching reflection, feedback and others. They use a certain organization and presentation to create a semi-structured and thematic resource application environment. As a new type of teaching resource, introducing micro-lecture into the classroom helps to improve the teaching efficiency and optimize the classroom structure [1]. At first, this article introduces the application of information technology in the design of micro-lecture and its advantages. Then, the problems exist in the traditional marketing courses are analyzed. Finally, the example of marketing micro-lecture design combined with information technology is given.

1.1 The Applications of Information Technology in the Design of Micro-Lecture and Its Advantages

The design and production of micro-lecture are built around a specific knowledge point. So compared with traditional classroom teaching target which needs to complete many complex contents, micro-lecture's teaching objective is relatively single, teaching content is more concise and teaching point is clear. Information technology can make better use of these advantages, it has the following applications in the design of micro-lecture:

●Using DV or other external devices with photographic recording function,the explaining process of teachers and the learning process of students under real situation can be recorded. This kind of micro-lecture can fully reflect the objective reality of classroom teaching situations, such as the

teaching status of teachers, the learning activities of students and student-teacher interaction. But the information capacity of the video is too large, interference or irrelevant information is excessive, it is only suitable for teachers' reflective research and not suitable for students' independent learning.

● By installing the screen capture software on computers, teachers can record the teaching process by PPT, drawing tools, handwriting board or other methods while recording sound. The screen capture software mainly records the teaching content and process displayed on the screen. Hence, the advantage is that the main line is clear and the irrelevant information is less. It is suitable for students' independent learning.

● Teachers can also use images, animation or video production software to make teaching video clips. This type of course is suitable for the production of digital micro-lecture, which can effectively integrate the advantages of video and screen capture mode.

In this specific and typical teaching and learning scenarios, teachers and students can train their higher order thinking skills. In this way, it can not only quickly improve teaching level of teachers but also enhance students' interest in learning. Besides, both teachers and students can watch micro-lecture, view lesson plans and courseware online. They can also download them on multimedia digital terminal equipment such as laptops and mobile phones for mobile remote lecture and personalized learning. Compared with the traditional teaching mode, the micro-lecture has the following advantages:

● The composition of resources is diverse. Micro-lecture uses classroom teaching video as the core and integrates instructional design, teaching materials and courseware, teaching reflection, student feedback and other resources. They together constitute a diverse and compact theme unit resource package and create a micro-teaching resources environment which is closely integrated with specific teaching activities.

● It is short but has wide range of use. The duration of micro-lecture video is short which is usually 5-8 minutes, but its theme is prominent, direction is clear. Hence, it is more in accordance with the visual presence law and students' cognitive characteristic. Besides, the resource capacity of micro-lecture is small.

● The structure is easy to expand. The micro-lecture is neither simple collection of many types of resources, but also different from the previous "teaching resource pack" concept. It is a structured combination of a certain knowledge point or teaching theme and a meaningful link between teaching resources and teaching activities to form a complete resource application environment. It also has the advantage of an open, generative and dynamic semi-structured framework in which the resource elements can be modified, extended and generated. With the change of teaching needs and resource application environment, the micro-lecture can be dynamically updated [2].

1.2 Problems Exist in the Traditional Marketing Courses

The traditional teaching mode is teachers teach and students learn. The teaching method is still the principle and example mode. Students' initiative and enthusiasm is not fully mobilized. Some teacher may introduce foreign case, but under the influence of traditional teaching method, a case actually only plays the role of an example. In addition, in the teaching process, students generally lack hands-on opportunities, which can't mobilize students' interest in learning. It is difficult to bring the latest marketing concepts, strategies and methods into the classroom. As the current teaching management system emphasizes that teaching and exams must obey the given outline, it is very inappropriate for the strong practical and innovative marketing courses. Using such methods is difficult to cultivate flexible and creative marketing talents.

Marketing is an application-oriented discipline which focuses on students' comprehensive application ability. The development direction of marketing education should be improving application ability while not just be limited to the explanation of basic concepts and theory. It should pay more attention to cultivating students' market research data collection capability as well as the ability to deal with problems efficiently. Especially with the current development of marketing theory, the popularity of new marketing concept, the promotion of international marketing and the constantly improving of marketing environment, the market puts forward high demand for the capacity and

quality of marketers. As students' age is small and social experience is not deep, their application ability needs to be improved. Thus, with the reform of the education system, in order to better meet the social and economic needs for the application-oriented talents, the marketing teaching method must be reformed and innovated [3].

1.3 The Marketing Micro-Lecture Design

The design of marketing micro-lecture can be divided into three parts: before class, in class and after class [4]. Its flow and structure is shown in Fig.1. Only by combining these three aspects together organically, the micro-lecture can play its largest role.
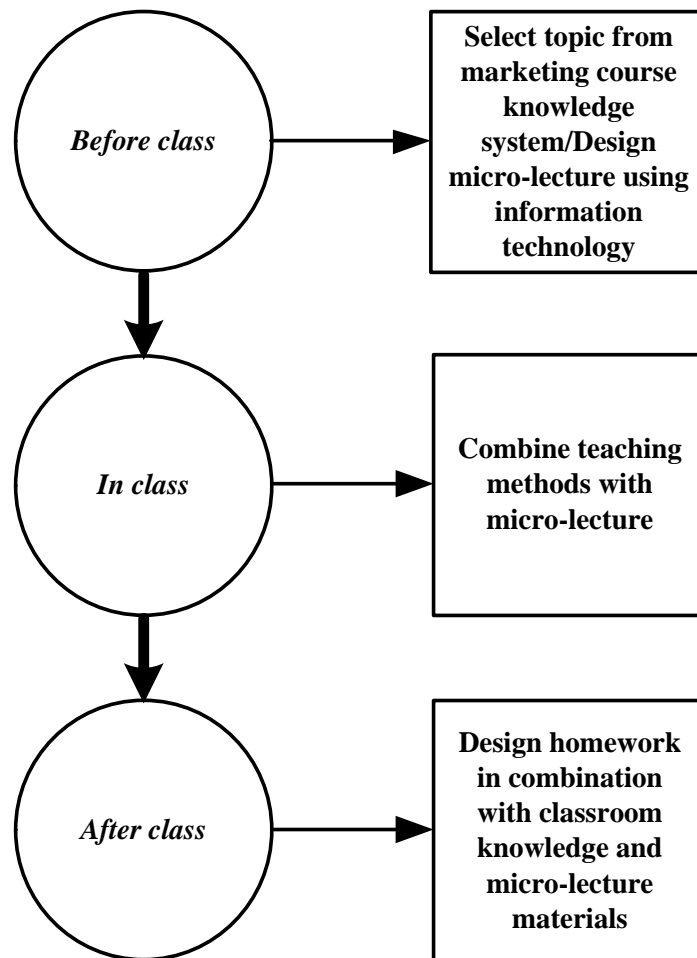
Fig.1 The Flow and Structure of the Micro-Lecture

Topic selection and design of the micro-lecture before class. The instructional design should run through the whole production process of the micro-lecture. Teachers should determine the focus and the main line of the micro-lecture according to the important and difficult teaching points. At the same time, the design of specific activities should be conducive to the use of micro-lecture equipment. In consideration of the subject characteristic of marketing courses, teachers need to select topic for the micro-lecture according to the requirements of marketing course knowledge system. The knowledge system of marketing courses mainly includes related marketing theory, corporate strategy and marketing management, marketing environment analysis, purchase behavior analysis, marketing research and forecasting, target market analysis, market competition strategy and 4P strategy. Teachers can design the micro-lecture based on these knowledge points. The selecting of micro-lecture cases is not aimless, it should be combined with teaching objectives and lesson plans. It is filtering micro-lecture resources according to teaching needs.

Combination of teaching methods with micro-lecture in class. In order to create the right learning environment for micro-lecture, teachers must be very familiar with the video cases before playing and pre-set questions for students. In this way, students can watch the micro-lecture materials with questions. When finish viewing these micro-lecture materials, teachers should question again to allow students to think and discuss. In order to motivate students to discuss and speak, teachers often need to score immediately. At the same time, teachers should give summary and comment after students have expressed their views so that students will deepen their understanding of the knowledge points. When using micro-lecture resources, teachers also need to pay attention to combining other teaching methods to play the maximum effect of the micro-lecture and better accomplish the teaching goals.

Homework design of students in combination with classroom knowledge and micro-lecture materials after class. The marketing is a very practical discipline which is closely connected with reality. After the micro-lecture, teachers need to guide students to apply the acquired knowledge to practice after class. Teachers should allow students to find information in the market to understand its development so as to mobilize the enthusiasm of students to participate sequentially.

2. Conclusions

In information age, the network-based education is pushing forward the reform of traditional teaching methods. The rapid development of modern information technology brings multimedia computer network into classrooms, which has become a new teaching resource. At present, there are many problems exist in domestic marketing classrooms. Micro-lecture, a new teaching method, can solve these problems and improve the quality and efficiency. From development to operation environment, the micro-lecture has obvious advantages in marketing courses. Using different types of micro-lecture resource can not only make teachers' operation more clear, but also enhance students' self-learning ability so as to achieve the purpose of optimizing marketing course teaching.

Acknowledgement

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