The Micro Design of Micro-Lecture

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Abstract—This paper on the introduction of the concept, significance and application of Micro-Lecture model, based on the proposed micro course design should stick to flip the classroom education connotation and the characteristics of micro class resources, fully grasp and use micro class design series micro strategies, including: micro perspective of topic selection, design of micro class content refinement, micro courseware making, micro video lesson teaching, form a complete set of basic strategies, such as learning resources environment to achieve micro class to implement class teaching.

Keywords—Micro-Lecture; flipped classroom; design strategy

I. INTRODUCTION

Micro-Lecture, is also known as Micro course, refers to the video as the main media for ten minutes time to recording the teacher's lecture for a certain knowledge point, including activities of teaching and learning. Compared with the previous lesson teaching video or video courses, the length of Micro-Lecture video is shorter, paying more attention to the integrity of segmentation knowledge. From the perspectives of curriculum, Micro-Lecture is a video media of the curriculum resource package, micro video is micro main body of Micro-Lecture. Combined with the "micro" resource characteristics of Micro-Lecture, the paper mainly discusses the design strategy of micro perspective of topic selection, the design of content , explanation and learning resources.

II. Design and Development of Micro-Lecture

A. Micro Perspective of Micro-Lecture Topic

In general, the lesson topic selection should follow the micro subject, micro strategy, the application of micro basic train of thought, and the micro perspective of Micro-Lecture make organic combination of the following three.

- Design of fine small theme or series micro theme. A Micro-Lecture at 5-10 minutes explaining thoroughly, generally only suitable for teaching a knowledge, topic selection need fine knowledge, can avoid generalizations. For a single Micro-Lecture topic selection, it is better to choose the key points and difficulties in the knowledge structure or problems in-depth analysis, to help students to understand. Common theme is small, precise micro class, such as series of "basic knowledge of primary school Chinese class", " the little match girl" preview video ", "the understanding of the quadrilateral" and so on. With micro class promotion, people found that only depending on a single lesson to learn is not easy to form a knowledge system. In order to overcome the "fragments" scattered, series micro class began to emerge. For primary and secondary schools, for example, the language lesson topic selection, main content of the traditional Chinese teaching can be decomposed into independent and several related class module.

- Micro design to stimulate students interest in learning strategies. According to the different method of teaching or learning, micro class can show the teaching model, project, practice, discussion, demonstration and so on the many kinds of forms. Thus, the choice of the micro class theme has close relationship with the application of learning strategies, learning strategies and even sometimes can determine the effectiveness of the micro class topics. For example, "the secret of poetry appreciation of poems", "Chinese calligraphy" person, "English now with past comparison", "English proper nouns anecdotal stories such as" micro class topics are recommended.

- The design of selected topic should consider the micro application of micro class. Different application mode means that different design ideas. Micro-Lecture is to use 5-10 minutes time to explain a very fragmented knowledge points, the examination site, examples, homework assignments, or a micro video teaching experience, make good micro class may use in the classroom, but more likely is the student came home in the Internet, mobile phones, tablets, or micro environments, such as digital television used independently. The Flipped Classroom mode is a new model of micro class to change the traditional classroom teaching, micro subject should fully use The Flipped Classroom teaching idea, the micro class theme positioning auxiliary material for students after class, for example, may be considered as pre-course reading materials or project homework after class, and so on

B. The Design of Content and Explanation of Micro-Lecture

Teachers determines the theme of Micro-Lecture requires careful planning and preparation of micro class production of Powerpoint lecture.

- The design of learning content. In the design of micro course content, it should pay attention to analyzing the related knowledge and scientific treatment, to make them more accords with the cognitive law of teaching and students' learning characteristics. The large volume of micro class is not a normal classroom teaching, should as far as possible the knowledge according to certain logic is divided into several small knowledge, content organization way should be conducive to deep thinking and learning. Especially the choice of knowledge should be fine, it is impossible to section 45 minutes to enrich teaching content in a micro class a few minutes.

- The design of activities of teaching and learning. Micro class although short, but also should have the similar import, teaching knowledge and summarized the integrity of the teaching process, like a feature films should be opening, plot, the basic structure of the end, to build the complete the learning process. In particular, the design of class teaching should pay attention to the important questions.

- Striving to innovate of flipped classroom. The emergence of micro video lesson makes micro production lower the threshold. Whatever the small classes, teachers should pay attention to avoid moving type classroom teaching, must be in the design and interpretation of the ideas on the subject as far as possible reflects the micro the distinctive features of "flip" classroom lessons. That is to say, no matter how the micro course design is exquisite, the need to consider how to combine all flip the video of the concept of the classroom building of students' autonomous learning resources, make the lesson change class inside and outside the classroom learning curriculum resources, otherwise it is a good micro class is only traditional courseware of video image. For example, in the primary school Chinese class "" the little match girl" preview video ", in addition to the reading way to lead the learners to read fairy tales, and guide the learners in reading your thinking, so as to promote students more flexible and personalized autonomous learning.

III. The Developing Strategy Of Micro-Lecture Courseware

A. Reasonable Design the Content of Courseware

It is important that making full use of the theory of cognitive learning and the teaching design, according to the demand of the teaching contents and teaching objectives. And organizing information resources effectively and providing the appropriate amount of information is helpful to the breakthrough teaching difficulty, to expand students' vision, to make the students through multiple sensory organs to obtain relevant information. In making micro courseware, reasonable arrangement of the amount of information can improve the efficiency of teaching information transmission, enhance the vitality and creativity of teaching. On the basic structure of the courseware, lesson shall have a micro cover and the end section, content of text. In order to avoid information redundancy, generally adopt the method of no more than six levels of headings or directory page display content points, generally the page for 10 minutes of Micro-Lecture PPT should not exceed 20 pages.

B. Having Visual Aesthetic Feeling

A good micro courseware can not only stimulate students' interest in learning, and achieve good teaching effect, and can make people feast for the eyes. The high quality of micro courseware is beautiful content and form of perfect and unified. Micro teaching courseware, should pay attention to the presentation of elaborate design teaching information, at the same time the design of text should consider aesthetic multimedia display, rich graphics, useful animation and video, PPT production should be concise and easy, thus improving the effect of classroom teaching.

C. The Imply of Static and Dynamic Images

Dynamic picture can make the courseware excellent moving and static images can give people more space for thinking, so in the design of micro courseware piece should pay attention to let and the static and dynamic images, on the basis of the organic combination of images using PPT courseware animation function problem for leading teaching situation, otherwise depressing production may make the viewer to lose interest in learning. For example, in the micro math class, on the one hand, should consider how to display dynamic deductive process of arithmetic.On the other hand, teachers should pay attention to important information using mark stressed for strengthening.

D. Easy to Operate the Micro Courseware

In order to facilitate teaching, micro courseware should be as far as possible simple, flexible, and reliable operation, easy control of teachers and students. Moral set clear in the interface menus of courseware, buttons and ICONS, best support mouse is wellcome. It is important to avoid complex keyboard operation, avoid too much interaction level.

In conclusion, the design and development of Micro-Lecture should be carefully grasp these basic method which include "subject of micro perspective", "design of micro content" "explanation of strategy", "making the courseware", "micro video recording" and "form a complete set of micro resources". The method of design for micro teaching elements in Micro-Lecture, can effectively stimulate students' interest in learning, cultivate their ability of autonomous learning, improve their learning effect.

Acknowledgment

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