Design of Micro class based on Blending Learning Mode
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Abstract. Through the analysis and comparison of Blending Learning and the concept of micro class concept, characteristic. It puts forward the new concept of micro class Blending based on Learning. According to the design pattern of Blending learning teaching process, it elaborates the micro teaching design composition and principle, basic form, elements and activity characteristics of micro class design on network platform. According to the role of teachers and students in the teaching process of Blending learning, the video recording of micro class classification, focuses on the analysis of the design of teaching classes and demonstration class micro class, and micro class video recording technology application. The use of multimedia learning theory, expounds the design principle of micro courseware.

Introduction

The rapid development of network technology, multimedia technology and mobile technology and other modern information technology will promote the innovation of education and teaching idea and mode, from epistemology to constructivism, from "Teacher centered" to "learner centered" to "leading the one body". The White main learn from multimedia aided teaching to E-learning and then to the information technology and the curriculum teaching Blending Learning depth fusion. Micro class, it is the product of modern education technology and modern education thought and promotes each other. However, micro class design, development and application of many problems still need further research and discussion.

Blending Learning with micro class

He Kekang points out that the so-called Blending Learning is to play a leading role of teachers' guidance, inspiration, control of teaching process, and fully embodies the learners as active learning process, the main body of the enthusiasm and creativity, that is "leading the one one body" teaching mode. In the form of expression, is the interactive Web technology based on teachers and learners, is remote and face to face, is complementary, combining traditional and modern optimization is combined with a variety of teaching methods and teaching techniques. A strategy of nature of Blending Learning refers to the comprehensive use of different learning theories, techniques and methods and different application methods to implement teaching. Blending Learning is emphasized in the appropriate time to ask appropriate learning techniques to achieve the best learning objectives.

Characteristics of micro class on blending learning

The so-called micro class is to explain a knowledge point as the goal, to short online video as the form of expression, the organic combination of various teaching factors including body". Micro class has the following characteristics, as fig1:
The micro class and its essence is "course". That is, a complete teaching activities. The teacher is through the design of micro class. It constructs the learners' White main learning environment, learning and active learning, constructing knowledge meaning. The micro class is based on the network technology, multimedia technology and mobile technology as the support. The teaching process is organized, a dynamic application environment to complete the teaching and learning activities. Micro class is based on the blending learning the "dominant main body" teaching mode.

The second characteristic is the "micro". Micro class refers to the short time around a certain knowledge point. It asks inside (key, difficult and doubtful as teaching etc.). A teaching embodied in the teaching activities (such as guiding learners knowledge meaning construction, the teacher's comment, multimedia knowledge of a particular visual design, virtual reality display etc. For teaching and learning activities, the micro lesson objectives clear, prominent theme, contents.

The core micro presentation is online teaching video. Micro class video is not equal to the classroom record, or micro video (Teaching fragments), not the "teacher teaching resource". Micro class video integration of classroom teaching design (including lesson plan or plan), teaching materials and courseware, teaching reflection, learner feedback multiple information evaluation and subject teacher’s interactive comment. It is semi structured the real situation of "micro teaching environment". Micro class video in a short time, the format is generally support network online streaming media format, other resources. File size is only ten children overall trillion to ten trillion, which can be flexible and convenient to download them to save to a variety of multimedia digital terminal equipment, such as notebook computers, mobile phones, MP4, iPod etc.

The classification of three micro classes

Many factors influence the classroom teaching by teaching thought, teaching mode, teaching objective, teachers, learners, teaching content, teaching media, teaching method and so on. Therefore, teaching has the characteristics of complexity, uncertainty and art etc. Classification is also complex according to different dimensions and different, name and type of class types, just as the following figure 2:

According to the micro class classification and design character. Micro class types are outstanding teachers, outstanding dominant class of learners in class and the teachers and students, interaction. The role of teachers and students is the deciding factor of the teaching mode, teaching
process, teachers and students status will be along with the teaching activities and change.

**According to the micro class classification and design.** Blending design pattern of learning teaching process is divided into pre analysis, resource development and activity design and teaching evaluation design four stages. Therefore, according to the Blending Learning process model, micro class type feedback for early analysis, classroom teaching, class and online learning evaluation. Similar to according to the main part of classroom teaching (process) to classification, such as the prepare lessons before class, lead-in of new lesson, exercises to consolidate the class, summary development class etc.

**According to the micro class classification and design of recording technology.** Type micro class is mainly classroom record type and screen recording class. The complete process of classroom record type micro class is to use multiple cameras in real time display of the classroom teaching activities. The type can be applied to the various teaching activities, especially the experimental guidance, demonstration, case analysis and demonstration class, or learner centered performance, display etc. Application of classroom record technology mainly in the traditional film production technology based on automatic recording and playing technology based two classes. Making recording technique based on the traditional film and television, need the hardware equipment and environment layout, professional photography personnel and post production and release personnel.

**Principles and design of micro courseware based on blending learning**

Micro course is the core of the micro video, micro courseware is an important part of the micro video. PPT is common, easy to use, easy to learn and multi-media courseware. Therefore, the PPT design is a key link in micro class design, PPT design are always the "learner centered", that is, to analyze the learners' cognitive characteristics according to the characteristics of the subject, starting from the learner's perspective, careful selection and organization of media, a leading role but also can reflect the teacher.

**Space-time proximity principle.** It refers to a content of multiple characterization of information organization and presentation should as far as possible to maintain the proximity in time and space, namely to appear at the same time, reduce the operation.

**The principle of consistency.** The interface design and the interactive operation to maintain the overall style is unified, standard interface elements, it is best to use conventional label, icon to describe the selection and task, make learners according to various power appearance can clearly identify the learning software can. On different interface shape, position and function of the same properties of the elements to be consistent, the use of a unified, clear, concise interface structure. Remove has nothing to do with the teaching content of information presentation.

**The principle of double channel.** It refers to the information block, try to make "the block of information" includes "visual representation + auditory representation", instead of "visual representation + visual representation" or "auditory representation + auditory representation of information structure.

**Nakedness principles.** It refers to the use of markers (Application of caption, font size, color changes, the arrow icon, line drawing, the hyperlink Technology) will focus on the task of learning difficulties, and the critical point of marked.

**Conclusions**

Blended learning provides a new perspective for the teaching reform in Colleges and universities. Blended learning needs careful activity curriculum design, reasonable and orderly course successful implementation process. The diver versification of the activities of evaluation methods cannot do without the teacher great energy input, the policy support, also depends on the students' autonomous learning level etc.
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