Practice and Thinking on MOOC Construction of the Basic ComputerCourse

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Abstract

MOOC is a new type of open online teaching model, its emergence for college teaching reform provides a new way of thinking. The university computer foundation is a computer public basic course for college freshmen in colleges and universities. It aims to cultivate students' information technology literacy, improve the level of computer application and the ability of computer to solve problems. On the one hand the number of students there are more courses. Teachers work large, on the other hand, because the basis of different students, teaching content is also difficult to meet the needs of students personalized. This paper uses the theory of educational technology to guide MOOC construction practice from three aspects: guiding ideology, teaching design and curriculum production. Finally, it summarizes the construction experience and provides some reference value and application value for the construction of MOOC in colleges and universities..

Keywords

MOOC, MOOC Construction, Basic Computer, Teaching Reform.

1. Introduction

At present, the general university computer base in our country is ubiquitous. The experimental course is followed by the rhythm of the theoretical course, including Chinese input skills, office software, image processing, animation production, web production, Network foundation, computer hardware foundation , Database applications, computer system architecture, computer security and other aspects of knowledge. But because of limited hours, and now this course is generally based on office software as the main object of teaching, the other side is only slightly taught about, and did not achieve the desired results. Many of the students' knowledge can not be integrated into the experimental classroom is the general problem of the university computer foundation. Ninety percent of the content is necessary to deepen the understanding, digestion and absorption of theoretical knowledge through a large number of experimental operations. The reality is that only part of the content on the machine operation, the other did not have the opportunity to practice. This resulted in the student's understanding of knowledge is not thorough enough, knowledge is not comprehensive enough, not enough system. Students on the level of computer operation uneven, resulting in the arrangement of the course content is relatively unreasonable, can not fully meet the needs of students College students from all over the country high school, and high school across the country due to geographical differences and other reasons, the teacher power is also poor The Some students in the university before the basic operation of the computer has been thoroughly cooked in the heart, and some students even how did not come into contact with the computer, which led to the course of the experimental class there is a big difference. The main problems are: (1) teachers teaching a large amount of work, can not guarantee the quality of teaching. Each semester more classes, teachers of this course group can not afford heavy teaching tasks, students can not be unified requirements, resulting in teaching quality is not high, affecting the teaching effect. (2) a lot of repetitive labor. As a public class, teaching consistent teaching content, teachers are in the repetitive explanation, a waste of teaching resources. (4) learning resources can not fully play a role. Network learning resources are very rich, but the organization, rendering way is relatively backward, the lack of a good learning

platform to support the management of learning resources, can not make good use of these resources, such as fine course video, each video more than 40 minutes, not only download the video Time-consuming and students can not guarantee a long time to watch the video. (5) students learn lack of initiative. The current teaching model lacks the guidance of students' autonomous learning, leading students to learn positive and passive, always blind, negative, passive learning.

Can be required to carry out the basic teaching reform of computer reasons attributed to the following three aspects. First, the content of the course, requiring the basic operation from the computer to industry application innovation. In recent years, the contents of computer operations have been taught in secondary school information technology courses, making the original university computer courses and secondary schools to repeat a lot of content. At the same time, many industry jobs require that it not only be the basic operation of the computer, but in the industry to use innovative computers to improve the competitiveness of the industry. Second, on the computational science of the new aspects of knowledge, the computer basic course as the mathematical and physical status of the basic curriculum, should teach the basic content and methods of computational science[1]. This positioning has been basically recognized by the domestic and international computer education sector. Third, learning methods, the Internet provides a new course of learning and communication methods and ways, while providing a lot of free quality teaching resources. How to use the new learning methods to improve the learning effect is worth exploring new questions.

2. "Computer Foundation" M00C course construction conditions and objectives

2.1 M00C Course Construction Conditions

2.1.1 MOOC needs a mature theory to guide

MOOC involved in the relationship between the various technologies and personnel, as well as the construction of teaching models are very complex, To mature, effective theory for guidance, it may be achieved more ideal results. Holton pointed out: especially,It is worrying that no MOOC operator has hired people who have received instructional instruction, learning science, educational technology, course design training, or other teaching specialists to help them design the course, but rather employ a large number of Programmers and teachers, with a variety of purposes to participate in this open education experiment. At least from the current point of view has not yet found or create a suitable MOOC theory as a guide, especially the lack of MOOC-based teaching design theory and methods, which is very worrying. There is no concrete, mature theoretical guidance of teaching exploration and practice is blind, there is no direction of the existence of great uncertainty.

2.1.2 MOOC needs high quality teachers

The use of MOOC for teaching reform and teaching activities, requires a lot of skilled use of MOOC teaching teachers, such teachers only reach a considerable proportion, under their leadership, MOOC platform can really promote the deepening of education and teaching reform. And meet the requirements of teachers need to meet the following basic requirements: First, master the teaching design theory and methods to guide micro-courses, micro-video design; Second, the need for network courses and MOOC integrated design capabilities to design Based on the MOOC platform network courses; third is the need to have a strong online education and management capabilities to cope with MOOC proud of large-scale students; four teachers should have enough energy and time to ensure that MOOC education quality ; Five is the need to have a sufficient number of famous university famous brand professor, to play a leading role in demonstration.

2.1.3 MOOC needs the initiative and ability of students to learn

From the current case of MOOC found that the use of MOOC for students to learn a high demand, otherwise, students can not complete the learning task. First of all, the use of MOOC to study the students need to have a strong learning initiative, without this, the use of MOOC learning is out of the question. The famous university students can basically guarantee this, but in many college students with this requirement only a very small number of students. We face the reality is that there are many students a serious lack of learning initiative, the teacher became the learning process of the \"debtor\"

and \"Huang Shiren\". The reasons for lack of learning initiative students are very complex, not through the teaching design, teacher effect, teaching material design can solve. Second, students need to have strong self-learning, self-planning and self-design ability, especially with the learning objectives to develop, select the learning content, learning methods can effectively use the ability, without these capabilities, he can not To achieve the overall grasp of scientific knowledge, can only be saw the trees do not see the forest. Especially in a large number of micro-video in the world, students have to organize a complete knowledge system, so as to form a complete knowledge structure of the ability, otherwise the problem, cognitive load problems will follow.

2.1.4 MOOC needs to be able to accurately evaluate the learning results

Evaluation of learning results in the learning process occupies an important position, there are diagnostic evaluation, formative evaluation and summary evaluation, evaluation activities throughout the study throughout the process. It is a summary of the previous stage of learning activities to determine whether the learning objectives are met, whether the completion of learning tasks, but also to develop the next stage of learning objectives, learning tasks and learning direction. Traditional classroom teaching, learning evaluation is in the textbooks, teachers and students on the basis of the combination of the three teachers to judge, relatively speaking, more accurate and effective. But in the MOOC course, large-scale students so that teachers can not manage. In order to solve this problem, MOOC usually take a simple program - let the students teach each other and judge. [12] This has aroused the concern of many experts, apparently, MOOC itself does not have the ability to evaluate the results of learning, teachers and students because too many can not evaluate, and can be more accurate self-evaluation or evaluation of peer learning results of students Negligible. It can be seen that if the lack of evaluation of learning results of this important link, based on the MOOC learning effect will be greatly reduced.

2.2 "Computer Foundation" M00C Course Construction Objectives

2.2.1 To elaborate teaching design as the fundamental premise

Survey has shown that the vast majority of MOOC teachers believe that, compared to the traditional face-to-face classroom teaching, MOOC teaching teachers need to invest more time and energy for the early planning and process maintenance, especially in the early teaching design often need Teachers put more than the traditional course teaching design 2 to 4 times the time and effort, which MOOC teaching the final quality and effect has a crucial role. On the one hand, MOOC teaching, like any other teaching method, requires teachers to follow the basic laws of effective teaching for systematic teaching design. On the other hand, MOOC teaching is a new type of teaching that is different from any previous teaching method. Way, so the more teachers need to combine MOOC teaching itself with the characteristics and needs of careful and targeted design.

2.2.2 To enhance the MOOC learner's learning input as an important guide

Knowing the MOOC learners as much as possible in order to provide the content of the learner's interest is still an important part of the MOOC learner's learning input. As mentioned earlier, due to the large size of MOOC learners, MOOC teachers can not, as in the traditional teaching context, through knowledge and skills testing, multi-dimensional learning style survey, face-to-face observation and dialogue to all-round, system and in-depth Analysis and understanding of each learner's learning characteristics and needs, generally through the following ways from a more macro-level understanding of the MOOC learner groups; the second aspect to pay attention to learning tasks and activities designed.

Pay attention to MOOC assignments. Although MOOC teachers can not check the learners' assignments one by one as in the traditional teaching context, they should still attach great importance to the function of the job for checking, consolidating and promoting learning. MOOC teachers should be fully aware that the job itself is not for the difficult learners, nor to separate the level of the learners, but to promote learners to review, reflect, think, extract, apply the content, for learners and learning Depth interaction between content to provide an opportunity. In the placement of the work to pay special attention to how to provide some inspiration, controversial issues, do not have to pursue a

unified standard answer, but also to provide learners with comprehensive knowledge of the situation to solve the problem. For the learners can take the MOOC platform comes with the evaluation system or peer evaluation, to facilitate the learners get some feedback. Followed by individualized learning services and support.

3. The Making of MOOC

The selection and determination of the real situation in the preparation phase not only provide the real experimental place for the teaching, but also provide the reference for the design of the subfamily manuscript.

Implementing phase:

1) Teaching design. Based on the context of the operating class MOOC its main purpose for teaching, so the teaching design stage is essential. The teaching design mainly includes the contents of learners' analysis, learning needs analysis, teaching goal analysis, teaching content analysis, teaching method selection and application of these five aspects.

2) sub-lens script design. Sub-Script script is a blueprint and the basis of the production, is the use of video materials on the text of the language of the process of re-creation. MOOC course teaching content is mainly in the form of micro-video, constitute a micro-video screen language is the basic unit of the lens, so the sub-script script design is good or bad, directly affect the teaching effect. Sub-Script script design mainly includes the selection and determination of characters, shooting methods, shooting content, King, time. Table 1 is the multimedia chapter of the sub-manuscript.

Table 1. Three Scheme comparing

Numble	Shooting scale	Shooting method	Main content	Captions
0		Packaging animation		
1	Pending Near - special Special - in In the near	Push push Track; make a tracking shot Screen	Sunny campus Roadside, several female students are surrounded with beauty camera self-timer.A boy went to another boy next to lean to view Boys are fighting with others in a fierce expression package	Now young people are more and more like to take pictures, especially self-timer, we also like to use such a tool (such as PS beauty camera beauty show show) to become more handsome and beautiful, these tools in the end what magic? Let's take a look at the odds of image processing.
2	near		Teachers appear (or with the appropriate video)	In this information explosion, the information society, the face of complex information, people in order to quickly and effectively to absorb and exchange, more and more attention to graphics, image use and processing. So what is the image?

3) video capture. Video is the film of the contents of the script will be truly converted into a picture can be presented in front of people's video, the quality of the screen can affect the quality of learning. Video shooting involves the adjustment of white balance, composition, camera direction, camera angle, camera settings and so on.

4) post-editing techniques and techniques. Post-Editing is a sub-picture group together to form a complete teaching video, presented in front of the learners. Late editing techniques and techniques

mainly use the montage editing techniques, consider the lens conversion mode, the late voice and other content.

5) exercises and design of learning resources and design. Exercises are a means of testing students' learning outcomes and learning evaluation, as well as the consolidation of what they have learned. For online open MOOC courses, exercises can also be a way for learners to learn to track.

6) the design and production of learning resources. Any course of study can not be separated from the support of learning resources, a variety of learning resources can allow learners from a comprehensive understanding of the knowledge content, to achieve the best learning results.

4. Conclusion

MOOC construction process by educational technology expert, speaker teachers, curriculum producer and production team visits analysis found that: First, the guiding ideology, from the perspective of teachers and students to analyze and illustrate some key issues MOOC construction: MOOC demand and positioning, the main part of the construction of the MOOC, this course use effect; Second, design courses, MOOC designed for teachers put forward higher requirements, teachers need to have some basic design concept of teaching through relevant training, the teaching experience with the Internet technology, and reflects a certain interaction effects in course design, at the same time, teams of teachers also need to choose the course scene with style, finish writing the script, the whole process will take some time, we need teams of teachers to actively participate in curriculum design . Finally, the course production, the first is the production team and the role of coordination between teachers, the production team do not understand the teaching content, the teacher team do not know how to shoot production technology, the two need to learn from each other in the process of learning, mutual coordination ; The second is the MOOC teaching and the traditional form of teaching changes to teachers put forward new challenges.

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