Exploration and practice of university physics video resource under resource sharing background

JIANG Hai-li SUN Qiu-hua ZHAO Yan-cheng ZHANG Zhi-lin

Harbin Engineering University, College of science, Heilongjiang, Harbin, 150001

Abstract

Video course is an important part of resource sharing course construction for college. Firstly, this paper analyzed some shortage such as lack of professional filming environment, monotony of the video screen, lack of design of teaching, lack of post-production. Secondly, some improvements were proposed, such as equipment with professional recording and broadcasting classroom, well-designed teaching process, demonstration experiment extensive video teaching, focus on post-production, integration courses feedback seriously. Thus improve the quality of video courses and promote the construction of resource sharing courses.

Keywords: resource sharing; university physics; video course

1. Introduction

October 12, 2011 issued by the Ministry of National Education, the implementation of "views about the construction of national boutique open courses deployment quality video open class and boutique resource sharing course construction. " Boutique resource sharing lesson is college teachers and students for the service principal, while facing the social learners' boutique courses. Currently, the network course is an important manifestation of the boutique resource sharing courses, and video resources are an important part of the online courses.

2. The main problem of the instructional videos

According to incomplete statistics, the construction of a network of many colleges and universities, about 80% of the network course there are instructional videos, but mostly there are several typical and common problems in the existing instructional videos

2.1 Lack of Professional Filming Environment

Video recording places are generally ordinary classroom, there is no special sound-absorbing and soundproofing, ambient noise; ordinary classroom lighting conditions is not enough, the picture is bleak, and the lack of beauty. The lack of professional camera crews are on the process of teaching a full range of shooting, but only with a fixed tripod camera will finish shooting; it is difficult to capture every moment in the classroom. Therefore, the filming environment can not meet the production of high-quality video lessons.

2.2 Monotony of the video screen

Teaching video screen of the video screen is basically only speaker teachers lens, the entire teaching process from start to finish are close-ups of teachers, Teachers is the only scene in the entire program

characters, the mainline figures, instructional videos viewpoint lens, View other changes. Speaker teachers are often faced with the lens, the lack of video recording experience, often the tension in front of the camera, cramped, and the language of instruction is not smooth, the teachers usually taught full of passion, effortless lost should feel normal level is difficult to play, instead countersunk just read the script, scripted, stern dull taught, this lack of exercise modes of teaching, passion and beauty. Regardless of the speaker teachers is how good the teachers, this form of recording will become boring monotonous lectures. When the students for a long time to face the same picture learning, it is easy to lose confidence in the speaker teachers, loss of audio-visual interest to produce tired of reverse psychology, eventually lost its proper value of the video courses.

2.3 The process of teaching the lack of plot design

The teaching process is the process of interaction between teachers and students, the whole process should be included to guide students spontaneously identify problems, ask questions, and eventually learned how to solve the problem of these three aspects. Filming Speaker teachers usually face the camera, the lack of communication between teachers and students, teachers taught entirely a one-way information dissemination process nobody to inspire the passion of teachers teaching teachers taught became a task sex work, the talent of teachers as a result of student feedback is difficult to get cast, it is difficult to restore the real context of the classroom.

2.4 Lack of post-production

Many colleges and universities in order to accelerate the building of video resources, an important part of the post-production processing completely omitted, but the recording process is bound to exist speaker teachers in the face of the lens of the camera because of psychological tension, lack of presence and absence of the mirror before training and other factors such as mistakes, and these mistakes are not treated exactly was presented to the students, can only have a negative impact to the students, to reduce the effect of students' self-learning.

3. Teaching video of improvements measures

3.1 With professional recording and broadcasting classroom

In order to meet the technical requirements of the boutique resource sharing courses and classroom teaching video, I proofread the original recording and broadcasting classroom renovation of the HD automatic recording and broadcasting classroom. The taped classroom after transformation to achieve the HD fully automatic recording courses demand. Recording System hanging wheat harvest tones and a key mode of recorded lessons, teachers are not required to wear or hand-held microphone, without operating the complexity of the control panel. This threw himself into classroom instruction for teachers created good conditions to improve teaching quality. Recording and broadcasting system also uses a flexible multi-channel signal acquisition technology, three seats were taken, the first video camera installed in the rear of the classroom in the main Speaker Lectures video-recorded; cameras installed in teachers in the front, mainly to the performance of the lens of the students in the classroom, shooting students in lectures, answer questions, take notes, etc.; cameras tasks is an absolute record projection content. Three-way signal Teachers lens, student lens, computer screen smart switch, fully automated video quality, the use of three-way camera language change, learners

can prevent visual fatigue and increase the learning effect.

Taped classroom with tricolor Designed as a main light source, respectively laid the main light, sub light, side and top light source to ensure that the content of teachers, students and PPT normal amount of exposure, given the projection screen area darker cloth light. The professional soundproofing installed in the classroom, for the recording of the video courses to create a quiet atmosphere.

3.2 Well-designed teaching process

To create a blooming, charismatic video courses, the need for the teaching aspects of the design.

3.3 Rich video teaching demonstration experiment

Physics is a discipline on an experimental basis, its concepts and laws are summed out on an experimental basis. The physics teaching purpose is to allow students to truly understand and grasp the laws of physics. Develop students' creative thinking ability and practical ability. How to develop students' ability to stimulate the enthusiasm of the students studying physics? Most effective way of teaching content and physical experiments combined. Demonstration experiment can best reflect this combination demonstration experiment is a very important means of teaching physics teaching.

In order to stimulate students' interest in learning, enrich the content of the video courses, demonstration experiments into the classroom, will improve the video courses teaching effect. Construction of the demonstration experiment into the classroom in order to improve the teaching effectiveness of the demonstration experiment should be carried out from the following aspects:

(1) establish demonstration experiment project

(2) demonstrates the design and production of the experimental apparatus

(3) Overall concept and local ideas

(4) Determine the overall design

3.4 Focus on post-production

Good picture editing and effects processing, and some that are not natural speaker teachers lecture process of the editing process, facial expressions, their screen with students listening replacement treatment, but need to retain teachers screen Paralanguage to ensure lectures authenticity and identity. In sound track clips when, for teachers, such as "Well, then, is not" spoken language need to adjust the time line units accurate to the frame, and delete it. The same time, such as students in the classroom discussion, hands, etc., through the lens group then remove some of the unnecessary process and make the picture very smooth visual effect. Finally, design the titles, credits video.

4. Summary

Booming online education to promote the process of resource sharing programs, how to improve the quality of the shared resources, teaching resources efficiently, becomes a common concern in countries in the era of knowledge economy. The optimization of video lessons is an important part of the construction of resource sharing programs. Recording and broadcasting classroom proposed with professional, well-designed teaching process, rich video demonstration experiment teaching, focusing on the post-production and carefully integrated curriculum feedback can effectively improve the quality of video courses, to promote the boutique resource sharing courses construction.

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