# Research and Practice on Multimedia Teaching Mode of Photography Fundamentals Course on SPOC

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#### Abstract

With the advent of the information technology era, multimedia technology is rapidly popularized which brings great changes on people's work and lifestyle. Photography Fundamentals course is based on the development and teaching design of Small Private Online Course (SPOC). The students can complete the learning and understanding of basic knowledge points through multimedia auxiliary teaching platform after class. In class, the students can consolidate the comprehension of photography technologies, and absorb the basic aesthetic knowledge. Thus, a new approach of practical teaching through multimedia deep learning is found.

#### **Keywords**

#### SPOC; Multimedia Teaching; Deep Learning.

### 1. Introduction

Massive Open Online Courses (MOOC), a large scale open online courses, rise with the rapid development of the Internet. The universities at home and abroad successively set up this online learning platform to offer free course which provides more students with the possibility of systematic learning. MOOC draws extensive attention of learners for its diversified tool resources, and free and easy-to-use courses contents. While, MOOC has its own disadvantages. For example, it is difficult to truly form a knowledge system through fragmented learning; it is short of the transmission of tacit knowledge and so on. Therefore, Armando Fox, professor at the University of California, Berkeley, proposed a Small Private Online Course (SPOC). "Small" and "Private" of SPOC is relative to "Massive" and "Open" of MOOC: "Small" refers to the small size of students; the "Private" refers to the setting of restrictive entry condition for the students, and the applicants who meet the requirements can be allowed to SPOC. The teaching mode with many restrictions for learners combines the high-quality teaching resources of MOOC with the advantages of the traditional classroom teaching which ensures the effectiveness and quality of teaching, avoids the unnecessary waste of resources, makes high quality course resources available to people in need. Photography Fundamentals course has 48 credits in total. The traditional teaching is based on theory with problems of boring contents, little practices, and low learning motivation and so on. To solve the problem above, the development and teaching design of Photography Fundamentals course on SPOC have been conducted. The social contact tools, such as WeChat, Weibo, and Bilibili etc., are used as multimedia auxiliary teaching platforms to combine the online and offline learning.

I Necessity of SPOC Multimedia Teaching

(1) Introduction to multimedia teaching. Multimedia is a combination of media functions that carry information, such as images, animation, and sound and so on. In the teaching application, it changed the traditional knowledge's storage, dissemination, and extraction methods and has better interactivity and share-ability. Multimedia teaching works on the basis of multimedia technologies. During the teaching process, according to the traits of teaching targets and objects,

through teaching designs, multimedia information is applied to students which forms reasonable teaching process structure to make students study at the best learning condition.

(2) SPOC multimedia interactive application. Multimedia forms a context of sound, light, shapes, and colors etc., which directly affect the students' visual and auditory organs. It has a strengthening and overall effect. With the rising of the Internet, the convenient and efficient transmission of information greatly improved the teaching effect and students' interest in learning. Combing these social contact tools, such as WeChat, Weibo, and Bilibili which gain popularity among students, multimedia auxiliary teaching platform on SPOC for learning is built.

(3) Necessity of SPOC Multimedia Teaching. Multimedia teaching can change the limited, onesided, and discontinuous photography teaching mode in the past. It can continuously and dynamically display the image-forming principle, formation, and development process to the students; it can also make up the fact that the cameras can only be observed by one person which is difficult to communicate between teachers and students. It reduces the exchange of words and saves time; In traditional photography teaching mode, instructor demonstration is a widely used teaching method which cost the instructors a lot of energy and time. Using multimedia auxiliary photographic teaching mode, share resources and make interactive communication through social contact platforms, such as WeChat, Weibo, and Bilibili and so on. It not only saves time and energy, but also make the instructors devote more energy to teaching which enhances the quality and efficiency of teaching.

## 2. Exploration of SPOC Multimedia Teaching Modes

(1) Online teaching application. The students, before class, watch the multimedia videos released by instructors through the learning platform to complete self-learning, and in the later process of learning, watch the videos through cellphones repeatedly to strengthen their knowledge continuously. If teaching the important contents of symmetrical structural equilibrium in the photographic composition, teachers first introduce the related concepts and types of symmetrical structure equilibrium, intercept a typical part of symmetrical structural equilibrium in Raise the Red Lantern, and draw conclusions through the discussions on WeChat which gives full play to the students' subjectivity, enables them to actively explore and acquire knowledge, and deepens their understanding of knowledge.

(2) Offline teaching application. Multimedia technologies are brought into the photographic teaching system as advanced teaching media to optimize photographic teaching. If teaching focal length, teachers use the inquiry method. The students watch the videos of different focal lengths on the social contact platforms in class to experience different visual perception. The multimedia auxiliary teaching objects are achieved by combining the various teaching methods to optimize instructions.

# 3. Advantages of Multimedia Teaching Methods

#### (1) Imagination cultivation and interest stimulation in learning

Psychology tells us: "Interest is people's selective attitude to things, and is psychological tendency to actively know somethings or attend some activities. It is the key motivation for students to actively acquire knowledge and form skills." The traditional teaching mode is single, reduces the learning interest of students. The multimedia auxiliary teaching can greatly mobilize the initiative and participation of students' learning, making the instructions vivid. If teaching the photographic functions, teachers selectively collect typical photographic pictures, make a short recording by post- production editing methods, and display it in class. Then let

the students summarize the photographic functions to mobilize the students' learning interest in photography and remember the teaching contents.

(2) Teachers use multimedia to teach, and provide the intuitive images and special expressions of things to enhance students' perceptual understanding. On this base, teachers analyze, compare, and ratiocinate fundamental principles which break through the difficulties of theoretical knowledge in teaching. The aperture adjustment, shutter adjustment, and depth of field adjustment labels on the camera lens are small and dense which is difficult for students to see clearly. It is impossible to hand our one camera lens for each students and it wastes time to take turns to watch them. Only by dictation of teachers, the students can have no perceptual knowledge. It is hard to achieve the ideal teaching effect. Therefore, in class, the student can clearly watch videos with explanations and adjustments through the big screen, and have a deep impression on them.

(3) Process demonstration visually and skill's cultivation and mastery

The photographic teaching is very practical and emphasizes the strengthening of skills. The so called "strengthening of skills" refers to highlight the characteristics of photographic skills, and emphasize the basic training to make students master the basic skills and techniques. It is the key part of the photographic teaching and the basic requirement of photographic practise teaching. The students can only master the basic skills and techniques by repeated training. Therefore, the demonstration breaks through operation difficulties for students to master the key part of skills and techniques. While in real teaching, due to the objects or teaching aids for demonstrations are small, the students can hardly observe the overall process of demonstrations which influences teaching effect. The multimedia videos can visually display the whole process of skills' operations. The key part of practical operations are displayed by freeze-frame and close-up shots which is easy for students to grasp the technical essentials. In the actual teaching process, the using operations of cameras are photographed with digital video cameras, and the details are enlarged by close-up and wide-angle lenses. Teachers guide the students to practice in freeze-frame and replay functions. The students are allowed to observe and practice and after training, they can better master the basic operation techniques of cameras.

### 4. Conclusion

The deep combination of the SPOC multimedia teaching and the traditional photographic teaching is conductive to students to forming a broad and forward-looking horizon. The development trend of contemporary photography can be understood. The knowledge structure of teachers and learners can be significantly improved to enhance the quality of basic photographic teaching.

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