

Research on the Design of Micro Teaching Video based on Situation Creation

Tang Xiangning^{1, a}, Lu Nanfang^{2, b} and Yang Qianru^{3, c}

¹ Institute of Educational science and technology, Nanjing University of Posts and Communications, Jiangsu Nanjing, China

^{2,3} Institute of Foreign Language, Nanjing University of Posts and Communications, Jiangsu Nanjing, China

^atangxn@njupt.edu.cn, ^b1554022471@qq.com, ^c1350705134@qq.com

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Abstract. With the coming of micro-era, micro teaching video has already become the main medium and carrier which helps to reform the traditional classroom teaching mode and promote the micro learning mode. Compared with the traditional classroom teaching record, micro teaching video has distinct characteristics in roles of teachers and students, learning time length, learning content, form of communication, resource composition, research and development orientation, teaching feedback, and so on. Conforming to informationalized instructional design style which emphasizes situation creation, this paper takes *Psychological Health of College Students* as an example to explain Content design, media design and usability design of micro teaching video.

Introduction

With the coming of micro-era, micro teaching video has already become the main medium and carrier which helps to reform the traditional classroom teaching mode and promote the micro learning mode.

Micro learning was first proposed in 2004 by an Austrian learning research expert, Martin Lindner, and was formulated as a new kind of learning in the new media ecosystem, based on the micro content and the micro media. Micro learning is small in capacity, short in time, student-centered and values the creation of learning situation, resource and activity.

Micro teaching video is a kind of resource which supports micro learning that is developed on the basis of digital learning. It takes single knowledge point as basis in Segmentation, has both brevity of its time and content integrity, enables learner to obtain the best autonomous learning effect by informationalized instructional design based on the learner's cognitive load.

Characteristics of Micro Teaching Video

Compared with traditional classroom teaching record, micro teaching video has distinct characteristics as below:

Roles of teachers and students. Teacher can play as the main role in the video, or use the form of voice-over narration. At this time, students can change their role from passively accepting knowledge, answering question and finishing homework to active learning, group learning and personalized learning.

Learning time length. According to cognitive characteristics and learning law of students, micro teaching video is no longer than 20 minutes and usually lasts 5-10minutes, which is different from traditional class which usually lasts 45 minutes.

Learning content. Micro teaching video is problem gathering and topic prominent mainly to highlight a certain knowledge point and simplify contents. In relation to its size, the total capacity of micro teaching video and supporting auxiliary resources is dozens of gigabytes.

Communication form. Because of its small capacity and brevity of time, the video format is streaming media format which supports online play (including mp4, wmv, flv and so on). So it can be downloaded to the terminal device, such as computers, mobile phones, mp4 and so on, to make mobile learning and ubiquitous learning possible.

Resource composition. The selection of teaching content generally requires prominent theme, definite direction, relative integrity. Micro teaching video integrates instructional design, multimedia material and courseware, teaching reflection, students' feedback, subject expert's comments and other related teaching resources. Teachers and students can easily realize the learning of high-order thinking ability such as tacit knowledge, implicit knowledge in the real, concrete, typical case scenarios. At the same time, students can improve their teaching concept, skills, style of imitation, migration and promotion.

Research and development orientation. Micro teaching content makes everyone become a developer of video. The purpose of research and development of video is to tightly tie up the teaching content, teaching objectives, teaching means, is "for teaching, in teaching, through teaching" rather than to verify and deduce the theory. So R & D content must be the problem teacher is familiar with, interest in and able to solve.

Teaching feedback. Due to rehearsal of teaching without students before class in a short time, teachers can obtain the comments and feedback in time with immediacy and objectivity.

the Design of Micro Teaching Video based on Creation of Situation

More and more practice and research show that production of micro teaching video is not just a technology development process, but also a creative work supported by advanced educational theory, under the guidance of fine creative instructional design approach. The ultimate determining factor is "people" (teacher). Video works without teacher's meticulous instructional design, at most, can only be regarded as a gorgeous but useless exquisite "video courseware". It is not the interception of the traditional whole class, not indoctrination lecture with the head picture of teacher mainly in video not considering the cognitive and learning rules of students.

Situation creation means that applying specific teaching method in the teaching process, creating situation that fits with knowledge and study material learners must get, or visually present study material to them. It will mobilize learner's enthusiasm to participate in learning activities. This is not only a kind of suggestion making teaching "be designed according to situation" or "related to the situation closely", but a kind of theory about the nature of human knowledge. The important characteristic of study in situational learning is participation, value of which, for learner and community, is to become a member of this community. Let's take *Psychological Health of College Students* as an example to explain instructional design of micro teaching video.

Content Design

The selection of teaching contents. It reflects what kind of content the micro teaching video is to focus on or transfer to learner. Teaching content should be knowledge students can not understand through self-study, with greater teaching value and relatively brief and complete. If necessary, teacher may launch appropriate processing, modification and reorganization of teaching content, to make the teaching content more streamlined and complete, teaching target aggregative and single, teaching strategies diversified, to make it more suitable for micro teaching video to present. For example, the emphasis of subject *Sex and Love* is *Interpretation of Lovelorn*, which has important theoretical significance and practical value in guiding the right way in love and handling the incident of lovelorn effectively.

Micro process of teaching contents. On the basis of selected teaching content, micro processing should then be carried out. According to the characteristics of the length and size of micro teaching video, the course is divided into different teaching process: setting context, content presentation, teaching interaction and summary evaluation. Teacher showing to the students the film clip of *Love Is Not Blind* is not to focus on the wonderful story plot and dialogue, but to import in practical problems in film clips, to stimulate students' interest in learning, to produce cognitive conflict. After explaining the important concepts and theories, teacher puts forward some problems, step by step, evokes the aftertaste of the story, discussions, guides the analysis. Finally, it comes back to the initial problem situation with further complement related content analysis, emphasizing the perspective on the

positive side of the problem, echoing with the beginning, giving students a complete cognitive process. It allows learner to watch the micro teaching video both immersive and touched, triggering synchronous thinking. As is shown in table 1.

Table 1: Instructional design of micro teaching video *Interpretation of Lovelorn*

Main process	Teaching contents	Teaching method
Creating problem situation producing cognitive conflict	Leading question: Does a lovelorn person have the right to be sad?	Showing the clip of <i>Love is Not Blind</i> which presents the boss's attitude of contempt for Xiaoxian who is out of love
Explaining knowledge points	<i>Zeigarnik Effect</i> Psychological influence of lovelorn	Playing poetry and pictures reflecting lifelong love of Jin Yuelin for Lin Whei-yin Showing a clip of video from <i>The Bathhouse Men</i> about Yinjing who catches mental block after holding back lovelorn tears Organizing role-playing activity about 5 emotional stages of being deprived of dependence after being lost in love
Inspiring inquiry Guiding analysis	Question 1: How to release bad mood after failure in love? Analysis : The more you depress upset and resentment, the more melancholy you feel. For example, KTV is an ideal place to vent due to the characteristics of the environment suitable for crying, conveying feelings by singing.	Interviewing students for their real views
	Question 2: How many methods do you have to distract your attention successfully? Analysis: There are two kinds of transfer, one is of environment, the other is of feelings. The role of social support, such as friends and family, should not be ignored.	Interviewing students for their real views
	Question 3: Is it a bad thing for you to suffer from failure in love? Analysis: The key to judge a relationship is not to see whether the two are still together, but the feeling quality. There are two important mental tasks in the relationship: Do you really know more about your own needs? Do you know how to love others?	Interviewing students for their real views Playing the animated cartoon <i>the Relationship between Self-demand, Circle of Friend and Lovers</i> Playing the movie clips from <i>Love is Not Blind</i> which helps to answer the question "Is their breakup just because of Lu Ran's cheating?"
Overview summary	The reason why lovelorn becomes the most difficult psychological pain to treat, just because too many people do not really want to come out from that broken heart.	Reviewing initial part of the video
Assigning homework	Homework: Finding out 10 advantages of lovelorn Requirement: Take following sentence pattern as template, write 10 sentences listing the benefits of lovelorn I lost my love, that's why I got _____.	

Media Design

The final form of representation of micro teaching video is determined by media design, whose advantages and disadvantages directly determine the quality of micro teaching video. The following two aspects must be considered in media design: seeking the relevant context as the dependable part for the content of the statement, using the multimedia technology to enrich the presentation of content. This requires the scene, events, characters in the knowledge point concrete processing in accordance with the teaching content, so as to decide which media elements can be adopted to form video material. The carrier of teaching contents and materials mainly includes text, graphics, image, audio, animation and video, and each carrier has its own unique characteristics and is good at the performance of different types of teaching content.

Audio is a procedural information, in the analysis of *Zeigarnik Effect* when playing poetry and pictures reflecting lifelong love of Jin Yuelin for Lin Wheiyin, sweet music, zhu jun's poetry readings and teacher's interpretation have certain situational and infectious power, which has effect of explaining the picture, foiling atmosphere, etc.

Video records the real world in the combination of sound and image, can completely characterize learning content, show the details of things, make it easier for learners to understand and to internalize the knowledge. In the production of *concealment of psychological problems*, with analysis of the cause of death of Jobs by Glenn Alexander, through the montage editing of the film clips from *Pirates of Silicon Valley*, the psychological problems caused by the growth experience in Job's life can be highlighted.

Animation, the simulation of the movement, change of things, is conducive to the description of the movement, change of things. The animation after creative design is more vivid and interesting, which is conducive to stimulating learners' interest and enthusiasm. Therefore, self-made flash animation presents the relatively difficult knowledge of *the Relationship between Self-demand*, *Circle of Friend and Lovers* in a vivid and dynamic way, which is easier to obtain the identity of the learner.

Usability Design

In China, Gu Xiaoqing originally came up with research on usability design. Usability design stems from the research results of the field of design, refers to process and methods of emotional experience design of web-based products the enterprise provide to customers. As online teaching video, micro teaching video needs to meet the needs of online learners positive emotional experience for achieving learning goal, completing learning task. Especially in information age when digital educational resource is abundant, we must improve the awareness of attaching importance to usability designing from the students' perspective, if we want to increase the application of micro teaching video.

Situational teaching activities should be ingeniously designed to create a good learning situation. For example, at the beginning of *Interpretation of Lovelorn*, the clip of *Love is Not Blind* which presents the boss's attitude of contempt for Xiaoxian who is out of love is chosen to construct a real situation which brings visual and auditory impact, which is fascinating and paves the way for the following questions and interpretation. Students' role play is organized to vividly present 5 emotional stages of being deprived of dependence after being lost in love: anger, denial, compromise, long periods of depression and acceptance. Free discussion is issued to enumerates the methods to release bad mood, distract attention after failure in love and whether lovelorn is a bad thing for individual, so as to cause active thinking.

Emphasis should be laid on the specialty and artistry of teacher's explanation. According to the teaching needs, teacher should try to reach the goal of language to be coherent, appropriate and fluent with the appropriate speed to avoid catch phrase. Besides that, teaching strategies is stressed, too. It is necessary to make teaching to be a combination of basic quality, such as being scientific, educational and practical, and generality of common art, such as performability, emotionality, aestheticism and so on. For example, on the scene of searching the deep-root reasons for sequela of lovelorn in the teaching video *Interpretation of Lovelorn*, the teacher smells maple leaves, then turns

around with elegant bearing, which gives full play to the important function of improving students' attention and enhancing students' self confidence.

Conclusions

According to the characteristics of college students' learning, micro teaching video which conforms to informationalized instructional design style which emphasizes situation creation, combines the pictures, cases, film clips with vivid interpretation, organizes role playing, interviews the learners for real views, on the basis of which guides to in-depth analysis, promotes the students' theoretical and cognitive level. Interspersed animation is taken advantage to visually illustrate the content. The video's artistic expression and situational infection can attract learners, promote their memory , arouse their internal learning motivation.

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