

The Development of “Graphic Animation” Micro Video Based on the Concept of Micro Learning

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Abstract. Micro teaching video is one of the important micro-learning resources, based on the determined before the video content module, and then to refine the knowledge divide, scripted, designed on the basis of Camtasia Studio is discussed as a development tool, record video, edit video, the output video teaching micro-video of the whole development process.

Introduction

In this era of mobile learning, the rise of micro courses, many schools, educational institutions have invested a lot of manpower and material resources to develop a variety of teaching micro video resources. In recent years, Yale, Harvard and other prestigious world network open class, Massachusetts Institute of Technology course project, national excellent course network video resources fast, continuous development and growth, occupies the mainstream status of open educational resources. However, with the development of the times, some of the drawbacks of these network video resources are gradually revealed, which cannot meet the needs of people's learning. According to the investigation and analysis of relevant scholars, the following problems exist in the traditional network video resources: video teaching time is too long, takes a long time to watch the buffer and download, is not conducive to learners to focus on learning, teaching video file size is too large, is not conducive to the network upload and download. Professor Jiao Jian li has also mentioned: the traditional classroom record type of video resources, does not meet the Internet age people's attention mode, cannot meet the actual needs of the majority of teachers and students. At the same time, due to the reasons for the speed and bandwidth, resulting in a waste of educational resources. In this context, the "micro course" came into being.

At present, the domestic part of the frontline teachers, experts and scholars are based on the micro course of research and practice, but also the emergence of a number of outstanding teaching video resources, such as Foshan, Chinese micro class competition, the National University of micro teaching competitions both the creation of a large number of rich teaching video resources. There are a number of well-known sites have also developed or shared a number of excellent teaching micro video, such as the Net Ease open class Khan Academy micro courses, the National Open Education Resources Library five minutes courses, etc.. However, the existing teaching resources is not a form of micro video, did not have the design and development of a unified standard; in addition, whether the teaching of micro video can meet the needs of the practical application, how to improve the utilization value of the micro teaching video is our concern.

In this paper, before determining the basis of video content module, then refine the segmentation, the knowledge point script design, discusses the Camtasia Studio as a development tool, the whole process of the development of video editor, video output of micro video teaching.

Development Environments and Development Tools

The graphic animation is a type of presentation, the main use of the third way of recording the computer screen using Camtasia Studio screen recording software for micro teaching video production.

Camtasia Studio is a set of screencasts, video editing, video clip making menu, video player for easy video producer recording software for recording video dubbing, add subtitle, landscaping video operations .

Camtasia Studio recording interface and editing interface as shown in Fig. 1.



Figure 1. Finite Camtasia Studio Recording interface

The powerful screen recording function. Camtasia Studio including recording screen and Powerpoint, record screen to be able to record all screen activity. For the recording is also very flexible, we can record full screen or you want a custom Select the desired recording area. In addition to screen recording or video. With many editing functions, like adding tags, titles, icons, sound effects, and other functions. The teaching of plane animation micro videos is Camtasia Studio screen recording feature.

Powerful video playback and video editing functions. Camtasia Studio outside of recording, and video editing and playback. After you import the recorded videos and clips in the timeline, cut away excess unwanted fragments, also Division reorganization video added to the video title, labels, captions, video transition effect. While handling noise filtering of external noise during recording. Camtasia Studio in addition to the software video edit also supports other video editing, supports a variety of formats including AVI, MP4, MPG, MPEG, SWF, WMV, MOV etc . Paper screen recording and keeping to the SWF format, and then import the edited.

Support for multiple output formats. Camtasia Studio will record the video editing is complete we can export videos to MP4, WMV, and MOV, and AVI, and M4V, MP3, RM, CAMV, GIF and other formats of video. In the output video files can be output as the final, supported output format is very comprehensive, including MP4, WMV, AVI, M4V, MP3, GIF, etc. We can output your video further settings, additional output options such as video title, the video size, watermark, etc.

Software easy to operate. Camtasia Studio software interface is very simple and easy to use software, users without professional training, do not need professional editing and computer knowledge can master its powerful features. And there are a lot of Camtasia Studio free video tutorials for learning by the users reference.

The economics of software. Camtasia Studio for PC configuration requirements, simple and convenient, the required memory, simple operation. There are several versions of free download, almost without any teaching micro-economic costs can make videos. In China's micro-lesson online version of Camtasia Studio software free download.

Video Recording

The teaching of plane animation produced mainly according to the teaching of micro-video design and script editing using Camtasia Studio screen recording software and Adobe FLASH CS6.0 software recorded within 10 minutes of the micro-teaching video.

The teaching of plane animation micro video recording in this study are the most important steps to do the preparatory work, maintain a quiet recording environment is particularly important.

Micro teaching video length: <10 min

Micro teaching video format: MP4

Micro teaching video size: 5M

The teaching time, micro-video format and size meet the learner's needs, not only can students using computers to watch, learn, and can also be downloaded to the mobile phone, Ipad and other mobile devices, the use of "fragmentation" of learning.

Micro Teaching Video Production Notes

As the micro-instruction video designers must take a strict attitude, so teaching should pay attention to in design of micro-video production details, the author lists you want to pay attention to the details:

- (1) When the video recording of the micro-teaching, mouse mind can't shake.
- (2) The overall interface is clean, has nothing to do things off the background and font color to match.
- (3) Recording environment to keep quiet to avoid too much noise and teaching micro-video quality.
- (4) Demonstration operation, mouse not moving too fast.
- (5) The expression should be clear, logical explanation.
- (6) Selection of background music properly, to avoid interference with the learner's attention.
- (7) A knowledge teaching of a micro-video, logically linked to the independent and time control in less than 10 minutes.
- (8) Key points marked in clear text.
- (9) In order to have the right to ask questions.
- (10) The procedure step by step and cannot be easily skipped.
- (11) In micro-teaching video finally, should have a simple summary.

Video Editing and Output

(1) Video Editing and Landscaping

Early teaching micro-save recorded in AVI format videos, import into Camtasia Studio editor to do some processing, make the video more perfect and beautiful. In order to make the learners in the learning process easy to understand and learn. Based on the ellipse tool uses as an example
Case study: the ellipse tool using micro teaching video editing

High Material Import

Open Camtasia Studio software, file select Import media

High import title material and special effects settings

Heading to characterize the teaching topics of micro-video, micro-video about the design and development of short, direct cut to the Chase, targeted requirements "to disconnect the video clip video and audio links to better edit" and secondly, to be inserted between title and body special

effect, enhanced video interesting. "Excessive effect-select Edit-transitions-identifying" unified by COBE LOTATE transitions in this micro-video mode.

Add Comments. In editing, mainly striking comments have been added, especially manipulation shortcut keys, press Ctrl: draw a circle.

Press Alt: from Center to draw an ellipse around.

According to Ctrl+Alt: draws a circle around the Center.

High Zoom Effect. In some steps of the operation, in particular on the specific version of the operation, the author of the video portion of the local amplification, so that learners can see more clearly on certain details, such as in the selection of tools and key settings.

High Noise Reduction. Environment to keep quiet to avoid too much noise of the recording and teaching impact video quality, the teaching of micro-video recording time after 10 o'clock in the evening, the environment was relatively quiet during the day. Camtasia Studio also has sound effects editor, can eliminate the background noise as well as optimized speech, and other functions.

(2) Video Output

Prior to the video output, you should preview and check the video is complete, whether it meets the requirements, to the wrong place, you can still return to an editor to modify and improve. Final teaching micro-video output for publishing, teaching micro video hosting platform, we need to use and meet the hardware requirements to select an appropriate video output format, as well as some additional video output settings. According to demand the teaching of plane animation micro video output format MP4 in the build of the Flash option in the wizard, set the frame rate parameter is 6 (8 or more can guarantee coherence in video), each w key frame (the smaller the number, larger files and 80% (video in MP4 format in order to ensure its clarity and quality as set in 80%).

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