

Design and Application of Micro Video Teaching Resources

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Abstract. With the development of education informationization, modern educational technology, which is based on multimedia and network, has become the thrust of teaching. In this paper, the problem of micro video teaching resources is studied. First of all, based on the research of the system, study the analysis in early stage, material processing and analysis, script writing and analysis, recording, post processing and other design steps; Then, design principle from the aspects of content, compatibility, interactivity and other aspects of the research, then, the paper introduces the three modes of micro video teaching resources and the advantages of micro video teaching resources. Finally, design the teaching case according the recording mode of the design steps. The research content of this paper is clear and the method is reliable, and it has important significance to promote the teaching of micro video.

Introduction

According to the China Internet Information Center (CNNIC) released the twenty-ninth China Internet development statistics report shows that the number of network video users to 325000000, accounting for 63.4% of the total Internet users[1]. In twenty-first Century, the human society entered the information age, with the rapid popularization of network technology and multimedia technology, the traditional teaching method can not meet the needs of modern primary and middle school students. It is necessary to introduce modern teaching methods to mobilize the enthusiasm of students, improve the efficiency of classroom teaching, and cultivate students' self-learning ability. Multimedia technology can better demonstrate the effect of the classroom, which requires teachers to master the multimedia technology, on the other hand, we should fully understand the students learning needs, cognitive ability, cognitive style, multimedia technology and teaching process to rationalize the integration, so that students can improve their ability. In the network technology and multimedia technology continues to develop, micro blog, micro channel, micro film and other new media continue to emerge at the same time. Micro video teaching resources also born. Micro video has short, clear theme, strong pertinence, by the majority of teachers and students. The use of micro video teaching resources in the teaching of education, can effectively attract the attention of students, Reinforcement learning interest, improve teaching efficiency, etc.. And micro video production is simple, low cost, convenient for students to learn anytime and anywhere. Micro video teaching resources is the material basis of micro video teaching, the design and application of micro video teaching resources is studied in this paper, to provide guidance for the majority of primary and middle school teachers to make micro video resources.

Micro Video Teaching Resource Design Procedure

Video refers to a series of static images to electric signal to be capturing, recording, processing, storage, delivery and to reproduce the various techniques. Compared with text, pictures, sounds, video with its integration advantages become a mainstream application [2]. With the continuous popularization of the Internet, the Internet to see the video as a normal network.

In essence, the micro video is a video teaching resources. Time is short, the content of knowledge, the image of the image, accurate are the biggest feature of micro video teaching

resources. Micro video teaching resources to meet the fast rhythm of modern society, high pressure and network life style. The design of micro video should be from the perspective of learners, and a comprehensive analysis of learners, according to the knowledge and skills of learners, learning attitude, learning the basic situation and the design of micro video teaching resources. Micro video teaching resources design steps as shown in Fig. 1.

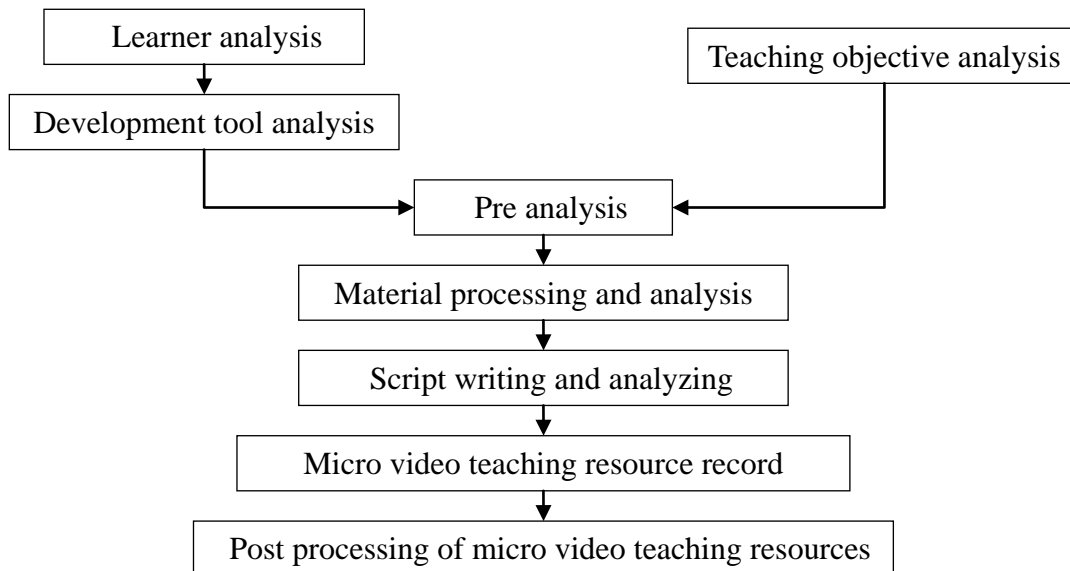


Fig. 1. Micro video teaching resource design steps

The 5 steps of the design of the video teaching resource are analyzed, including the analysis of the 1 steps, the material processing and analysis, the script writing and the analysis, the micro video recording and the micro video teaching resources, including the material processing and analysis and the script writing and analyzing are cycling; In the previous analysis, it is necessary to make an analysis of the learning, development tools and teaching objectives, and it is the basis of designing the micro video teaching resources [3].

Because of the generalization and complexity of information flow, micro video teaching resources can be helpful to the selection and integration of information for learning English. Micro video teaching resources for the purpose of teaching, which includes the picture, text, sound and other factors will effectively promote learners to learn English. Through the micro video platform to learn from the integration of information, to achieve the best learning results. Learning material producers should be based on different knowledge content, flexible grasp of time division, and in every link of the integrated use of audio-visual means and editing techniques, the boring, complex learning content to do simple, artistic, interesting [4]. Such a micro learning video content is tiny, and can make the learners make full use of scattered time to carry out useful learning.

Design Principles of Micro Video Teaching Resources

In the traditional teaching course, students tend to be distracted, and lack of interactive feedback, which is affected by the absorption of knowledge [5]. The mobile learning in micro video learning happens to make up for the defects mentioned above, which is effective and feasible. Using video format, can highlight the fun of learning content. On the basis of the design of the video content, more and more basis to meet the real-time, practical learning needs, design a easy to learn, easy to remember, to stimulate the learning interest of the learning video. Video design needs to meet the following requirements.

Micro video content of the richness, integrity and vivid. When the micro video is 30 seconds to 20 minutes, and the setting of the teaching content needs to meet the students' cognitive level and cognitive law. Although the micro video summary of the various knowledge points, but in order to arouse the students interest in learning knowledge, need to ensure that the contents of a certain vivid

and interesting, in editing video of the material selection to try to choose different types of elements, static and dynamic elements, making the micro video full of interesting. The purpose of the production of micro video is to impart knowledge to students, so it is to ensure the integrity of the teaching process, improve students' learning efficiency.

Compatibility of micro video playing environment. In the era of information technology, in the life is full of a variety of intelligent products, such as smart phones, iPad, iWatch, PC and other [6]. Every kind of electronic products have different types, and types of network video player are too numerous to mention, how to make micro video adaptation most electronic devices? This requires the production of micro video as far as possible to make the interface simple and intuitive, so that learners can clearly see the video, to ensure the convenience of learning operations. In skilled operation of the case study efficiency will gradually improve, learning effect will be more significant.

Interactive video teaching resources. The implementation of micro video teaching resources is to learn, according to the needs of learners, and in the implementation process to collect the feedback of the learners, and the interaction of the learners. Most of the micro video is used for learner autonomy, Learning to use the feedback of the video can be learned to learn about the situation of knowledge points, indirectly help producers understand the content of this video is difficult to meet the requirements of most learners, so as to improve and modify the future. The interactive learning model is based on the attitude of the learners and the principle of the students as the main body.

Micro Video Teaching Resource Record

Analysis in the early stages, attitudes toward the learning of learners, learners' characteristics, development tools and the teaching goal of detailed and meticulous analysis, according to the results of the analysis of the micro video teaching content and process design, according to the teaching contents and the characteristics of the teaching process of micro frequency edit material selection and processing required, do the preparatory work for more than, has begun to carry out micro video recording.

This paper studies the micro video teaching resources is based on the Smith Tech company produced by the screen video and editing a soft set Studio Camtasia, the development environment is able to meet the normal operation of the software environment[7].This software is simple to use, easy to use, from the performance and application are very suitable for the development of micro video teaching resources, so choose this software to perform micro video recording. In addition, you can also use the camera, mobile phones, tablet computers and other video to record.

Micro video recording method is not a single, the recording can be based on the surrounding the hardware facilities to make the appropriate choice. Choose the students the most favorite, the probability of the model, to students as the starting point, around the characteristics of the students to rationalize the design. On the whole, which is divided into three kinds of modes: Khan Academy mode, recorded screen software and PPT mode, screen recording software and electronic whiteboard mode.

Khan academy mode. Tools and software: recording software, writing board, microphone, drawing tools. Method: the teaching process is explained and demonstrated by the handwriting board and drawing tools. Process Description: the first step, for micro video theme, a detailed teaching design; The second step, the use of the handwriting board and drawing tools, the teaching process to demonstrate the third step. Record the teaching process through the screen recording software and voice; the fourth step, you can edit and beautify the necessary.

Record screen software and PPT mode. Tools and software: computer headset, that is included with the microphone, video recording software, PPT software method: the PPT presentation screen recording, supplemented by audio and subtitles. Process Description: according to the subject of media material, production of PPT courseware; second step, on the computer screen to open the video recording software and teaching PPT, began recording, the coach side to explain; the third step, the recording of the video after the completion of the necessary processing and landscaping.

Record screen software and electronic whiteboard mode. In the electronic whiteboard writing process or diagram, using the recording tool to capture the whiteboard pen on the electronic whiteboard operation. This is consistent with the teacher's writing habits, and positioning accuracy, writing fluency, writing out the word is also more beautiful [8].

Each model has its own characteristics, and it also has its own shortcomings. Khan Academy mode using the tool is relatively abundant, scene painting can attract the attention of students, easier to focus students' attention, but because the operation process is relatively complex, a waste of time; screen recording software and PPT model is also used to explain the presentation side to side, the visualized teaching process, so that the students can understand, but the needs of teaching proficiency PowerPoint software; Record screen software and electronic whiteboard mode is close to the traditional teaching methods, students are more easy to adapt and accept, but the enthusiasm of the students to mobilize and attract students attention is not as good as the above two models, and this model of the teaching of writing skills.

Advantage of Micro Video Teaching Resources

Micro video teaching resources for learners to not subject to time and space constraints, learning at any time and anywhere. Micro video teaching has become a mainstream means of modern education, compared with other learning methods, video learning has a unique advantage [9]. The birth of micro video teaching resources, with a shorter time to meet the learning requirements of the learners, to meet the needs of the era of fragmentation. The advantages of micro video teaching resources are as follows.

Image of learning content. Vivid image of the content is the biggest advantage of micro video teaching resources. The traditional way of learning English is through the written form, it is easy to cause the students to get bored, micro video will be boring written knowledge image, specific, easy to understand, easy to remember.

Diversification of learning resources. In many websites, micro video teaching resources is rich, content diversity. Micro video teaching resources based on the individual knowledge points to design, to provide learners with the learning needs of targeted. The same knowledge points can also be carried out without the design, the learners choose according to their own knowledge base, and gradually improve.

Learning time privatization. In the post modern society, knowledge explosive growth, and the use of the time to learn from the fragmentation of people gradually increased. Learners can be based on their own personal factors for micro video teaching resources to choose to learn anytime, anywhere.

The design of micro video teaching resources should take into account the characteristics of the learners, from the point of view of the micro knowledge, so that learners can be in a short time, a gradual learning. At the same time, because of the strong learning content in the video, designers should consider the time control and the arrangement of the knowledge structure, so that micro video learning becomes an effective way of informal learning.

Micro Video Teaching Resource Design Case

The People Education Edition seventh grade "English" volumes the sixth unit of knowledge "How's the weather?" pattern as the design object developed a micro video clips.

Short film. The short film is about 5 minutes, including the introduction, the new award and the summary of the link. In order to explain the way to show the way PPT, through the first play of the students learn the sentence patterns to import new sentence patterns, a gradual introduction of new knowledge, in the short film will be summarized in the last part of the content, to strengthen students' memory and understanding.

Teaching effect. Use information technology means making PPT presentation to attract students to the eye, increase students' learning interest, increase students' confidence, get rid of the traditional teaching make students to rote learning, improve their learning efficiency.

Existing problems. The effect of classroom teaching is obvious, the students' learning efficiency is obviously improved, but it is difficult to use the effect of micro video in the preview and after class review. The students' ability to learn independently.

Solution method. Teachers need to allocate sufficient time to test the students' learning effect, which can be detected by asking questions, group conversations and practice questions. Reasonable use of micro video for English learning, you can choose to be in the classroom before, or after class.

Conclusion

The content of the micro video covers a wide range of video forms, which usually covers micro film, documentary film, DV film, video clips, advertising clips, etc.[10]. Micro video teaching resources is to promote teachers' teaching and students learning English, a learning tool, in the use of micro video teaching can not completely abandon the traditional teaching methods, the two need to combine the organic, reasonable collocation. The design of the content, time and structure of the micro video should be strictly based on the students' foundation, learning situation and cognitive law. Although micro video has been widely used in the teaching, there are still some problems, need to make more in-depth research, to increase the application range of micro video.

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