Research on the Ideological Education of College Students based on Multimedia Technology and Cloud Service Platform

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Abstract
The development of modern information technology, especially the Internet and multimedia technology, has a great influence on the contemporary college students. In this paper, the authors research the ideological education of college students based on multimedia technology and cloud service platform. In the course of college ideological and political teaching, teachers can use the multimedia technology to explain the political thought more directly. At the same time, the internet has an important impact on contemporary students, and teachers can communicate with college students through the network more effectively, and timely understanding of the students' ideological status. Therefore, the extensive application of multimedia in the ideological and political course in university has become an important symbol of the development of educational modernization.

Key words: Cloud service platform, Multimedia technology, Ideological education, College students

1. INTRODUCTION

With the rapid development of the times and the continuous progress of society, the teaching concept of higher education is undergoing great changes with each passing day. In many modern education researchers and teaching ideas, have gradually reached a consensus, that is in the daily teaching process, the teaching practice of the multimedia technology and the specific subjects fully combined (Jian-hua, 2012; Krstev, 2014). Specific to the ideological and political education of college students in this course, the introduction of multimedia technology into everyday teaching practice, has become one of the main trends of Ideological and political education in Colleges and universities (Sabella, 2010). In the face of the new trend of the development of today's colleges and universities ideological and political educators must have a correct understanding of the basic characteristics and rules of multimedia technology and the ideological and political education, give full play to highlight the advantages of multimedia technology in teaching (Mastroleo, 2010; Huang, 2013), new ideas and methods to further explore the application of multimedia technology in college students' Ideological and political education as well as new ways make, thinking and exploration should be to enhance the effect of Ideological and political education.

In modern college students political classroom, teachers in order to get rid of the boring classroom atmosphere, in the classroom began more and more use of multimedia technology. The multimedia technology into the new curriculum teaching, on the one hand to create a situation for college students, to stimulate students interest in learning, have a rigid stiff classroom to add a lot of anger(Zhang, 2012). On the other hand, the correct use of multimedia in college students' Ideological and political education, not only to provide a wide range of learning resources for students, expand the students knowledge but, in the process of multimedia teaching, the focus of Ideological and political teaching in university is outstanding, can effectively resolve the problem for students, improve students' learning efficiency(Dai, 2012). Through the understanding of the characters in the multimedia video, it is more likely to cause the students to think about the subject of this class. The purpose of Ideological and political education in universities is to improve the students' Ideological and political level through the interpretation of the teaching materials. Therefore, the extensive application of multimedia in the ideological and political course in university has become an important symbol of the modern development of Ideological and political education.

2. MULTIMEDIA CLOUD COMPUTING

In today's colleges and universities teaching practice process, the introduction of multimedia technology to college students ideological and political education, breaking the traditional teaching mode of a single, boring way of teaching. In the multimedia teaching, the professional teachers no longer only rely on to explain the main teaching methods, but consciously through text, pictures, video, sound and other ways to spread knowledge and information (Khansa, 2015). This teaching method can fully mobilize students' auditory and visual, to change the traditional mode of education to a certain extent, in the process of teaching, interactive learning between the
subjects for the construction of knowledge meaning plays a key role. Cloud computing teaching emphasis on collaborative learning based on a variety of convenient means to provide information exchange, for example, discussing the education system in the region, whether in the classroom or teacher after class, can view and participate in the discussion between students and answer their questions, and promote the development of students’ thinking ability and wisdom of the senior group.

Cloud computing service platform provides the technical feasibility and guarantee for the construction of teaching environment, teachers and students can use the platform to customize the teaching situation, to carry out cooperative learning, to build a personal learning process. In the traditional classroom teaching, the source of the information is very limited, and it is difficult to construct the learning. With the development of network technology, the type of education resource is more and more abundant, and the quantity is increasing rapidly. Cloud computing can be independent of network education resources effectively integrate the scattered, and provide a convenient way to access and make full use of resources; secondly, cloud storage provides security almost unlimited storage capacity and no danger of anything going wrong, teachers and students can save a lot of learning resources and stable security in the cloud side, no the storage device to U disk, hard disk, no need to worry about the virus infection; finally, provides a convenient tool for teaching network teaching environment based on cloud computing. Teachers can access all available teaching resources, fully personalized computing software, storage, security and other elements provided by cloud teaching environment, effective teaching support of teachers, to provide convenience for students’ learning.

Suppose there are n tasks share m computing resources, The final solution to the problem of resource allocation is a non negative n * m matrix.

$$\sum_{m=1}^{M} \phi_m = 1, \quad 0 \leq \phi_m \leq 1$$  \hspace{1cm} (1)

F means cloud service QoS evaluation in the process of interaction:
\[ f^{(i)} j = f(x_i, x_j, s, t) = \sum_{m=1}^{M} \phi_m Q_m(x_{ij}) \]

So it can be expressed as:

\[
\mu(k) = \begin{cases} 
1, & k = d \\
\mu(k-1) - \mu(k)\frac{1}{d}, & 1 \leq k \leq d
\end{cases}
\]

Reliability evaluation of multiple interactions:

\[ C_m(x_i, x_j, s, t) = \sum_{k=1}^{h} \frac{1}{d} \mu(k) C^{\prime}_{ij} \]

When there are multiple tasks with negative global utility losses, in fairness to the goal, it should be selected with the task of minimizing the overall effectiveness of the loss of resource allocation, using the weighted average:

\[ C_i(x_i, x_j, s, t) = \sum_{j=1}^{m} \sum_{i=1}^{n} \eta_{ij} C_m(x_i, x_j, s, t) \]

Multimedia teaching environment is a kind of teaching environment which uses various kinds of multimedia teaching equipment and modern educational technology. The Cloud Computing Assisted Instruction in cloud computing environment, the use of cloud computing platform to build a personalized teaching environment, to assist teachers in teaching and students’ learning, promote exchanges between teachers and students, improve teaching quality. Under the cloud computing environment, most of the teaching elements have realized the digitization of information, teachers can stay at home to understand the teaching environment, complete the teaching task.

**Figure 3** Cloud computing aided teaching

Cloud computing can easily realize the data between different devices and application sharing, it is for the user terminal equipment requirements are very low, as long as there is a computer with internet access, the Internet or mobile phone can obtain needed resources and services. In the cloud environment, teaching activities are not limited by time and space, teachers can be in the home, office or travel in the field can be ready for the teaching work, teaching process, teaching activities in the multimedia classroom, can call the data and resources in classroom teaching, also can be the implementation of the experimental teaching in computer laboratory; students can download the teacher in the dormitory, computer lab or library before the lawn in the lectures, homework, course test.

### 3. Multimedia Technology in the Ideological and Political Education

#### 3.1 Characteristics of Multimedia Teaching

In daily life, people often referred to by the multimedia technology, which is based on computer system and the Internet, the use of text, images, sound, video and other elements, exchange and dissemination of information. In the context of the present era, technology has been widely used in various aspects of human life, such as in the industry, business, education, entertainment, engineering design and scientific research in the
fields, everywhere we can see the universal application of multimedia technology. Specific to the application of this technology in the field of education is very common, the use of multimedia technology has brought profound changes to the concept of education, to promote the rapid development and continuous improvement of the levels of education in china. Multimedia technology set text, graphics, images, video images, animation and audio and other media to carry information in one, as early as in 1990s has been developed. With the continuous development of modern information technology, multimedia teaching and traditional teaching has gradually emerged in conflict and confrontation, which is the inevitable result of their original intention of this is different.

- **Overcome the shortcomings of traditional teaching methods:** The application of modern multimedia technology in the classroom of Ideological and political theory, not only provides a quick and convenient condition for the teaching of Ideological and political course, but also greatly improves the teaching effect of political theory course. In the contemporary society, the change of political thought can be said a thousand li a day of Ideological and political course teaching, the traditional way and content obviously cannot keep up with the new era of change, and in the process of middle school students thinking has undergone tremendous changes, modern students love to question and challenge to the traditional things, so popular. For a long time the type teaching method cannot be widely used, especially in the ideological and political education course. Provides a platform for multimedia teaching is good for the teaching of these courses, can make teaching become boring interesting, and through the dissemination of the contents of film and television, animation, pictures, music and other forms, to this kind of teaching brings new vitality. Multimedia can reappear, simulation, create relevant scenarios, and can freely switch transition and, make the teaching more comprehensive and creative. The multimedia teaching in the teaching of the ideological and political theory course can enhance the teaching effect with its image and intuition.

- **To provide strong support for ideological and Political Education:** If the multimedia teaching is used properly, it will be a new and more practical teaching tool. The shortcomings of the traditional blackboard is not vivid enough, in the ideological education in the university classroom, teachers can through the video playback, picture switching, sound collocation, meet the students' needs of visual and auditory. Multimedia technology to get rid of the traditional textbooks of two-dimensional space static, dull and tasteless shortcomings, three-dimensional space through the courseware vividly the relevant content of the course in front of students. For example, the University Ideological and political teachers in the curriculum to students transfer some legal consciousness, many teachers will use the multimedia technology to give students play a video or movie crime cases, one can stimulate students' interest, to avoid the university classroom boring and because of the political situation and do not listen carefully happen, improve the students' attention, and through the playback of multimedia video, more transparent and intuitive on the political class to convey the idea of students than the traditional teaching style.
Figure 5 The virtual classroom

3.2 The application of multimedia technology in the ideological and Political Education

In the daily teaching practice of College Students’ Ideological and political practice, it is the inevitable requirement and important trend of the modern higher education development. This approach reflects our contemporary university education of the times, regularity and innovative features to a certain extent, has become the modern ideological and political education in Colleges and universities of China further closer to the reality, one of the way of life, to attract students to reflect the most direct. Active and flexible use of multimedia technology, take the reform of Ideological and political education mode and method, to create a very novel, effective and adapt to the new mode of Ideological and political teaching characteristics of modern information communication. In addition, the proper application of multimedia technology in the daily teaching process, interactive, intuitive and rich helps to increase the teaching process, is conducive to cultivating students' interest in learning, active classroom atmosphere effectively, so as to enhance the practical teaching effect when the generation of Ideological and political in a certain sense.

High quality talent for the future of a country and the nation, there is no doubt an irreplaceable important role and significance. Thus, training and transporting solid professional knowledge, ideological and political quality, high innovation ability outstanding talents, has become the most important goal of our policy in today's various colleges running and daily teaching. In the whole education structure of college students, ideological and political education plays an important role. The so-called ideological and political education of college students, refers to the students in Colleges and universities in the daily teaching of the system, the unity of the ideological and political, values and other aspects of education. To further accelerate the development of the ideological and political education, is helpful to enhance all-round comprehensive quality of college students, cultivate excellent reserve forces for the cause of socialism construction, plays an important role and practical significance.

Under the new situation, with the change and development of human civilization and the progress of the time, people's ideas, beliefs and values and behavior have changed significantly while also showing turn the world upside down, very complex character. At the same time, the college students' ideological values are becoming more and more complicated and changeable, showing the distinctive characteristics of the weak stability of low and high plasticity, the external environment facing coping ability. Therefore, the ideological and political education has become the indispensable teaching in Institutions of higher learning, this is because of the ideological and political education on the shaping of contemporary college students correct world outlook, outlook on life and values, cultivate patriotism and sense of social responsibility, there are ten important practical significance.

4. THE DEVELOPMENT OF MULTIMEDIA TEACHING IN COLLEGE IDEOLOGICAL AND POLITICAL EDUCATION

4.1 The combination of multimedia teaching and traditional teaching mode

For teachers, there is no universal teaching media, relying too much on the advantages of multimedia teaching, instead of making the teaching process. In the new curriculum reform, the current role of teachers in teaching is an auxiliary teaching guide, teachers in the classroom multimedia teaching to give full play to the leading role. Multimedia is a very powerful tool for teaching in teaching practice for many years also received
good results, teachers in the teaching of multimedia has many advantages to play out one by one, to achieve the best teaching effect. But in the teaching should not depend too much on multimedia teaching mode, otherwise it will allow a partial of the dead, the obvious advantages of multimedia forms, but also has its own limitations, the teachers should grasp the good, to achieve the complementary effect. Classroom, after all, is the classroom, after all, the class is a student, the purpose of learning is to apply. Therefore, the teaching of teachers to use multimedia teaching means, but also to combine the traditional teaching methods, cannot be contrary to the original intention of the teaching, have a bad effect.

With the rapid development of the times and the continuous progress of society, the teaching concept of higher education is changing with each passing day. Thus, in the ideological and political education of teachers and researchers must, from the current practice of Ideological and political education, according to the new situation and new problems emerged in the process of daily teaching, renew the teaching concept, timely application of the modern multimedia teaching methods. At the same time, the ideological and political education of college students to actively explore the ideological and political education of the distinctive characteristics and basic rules, and constantly strive to improve and innovate teaching methods.

4.2 Strengthen the communication between teachers and students, innovative teaching forms

The university classroom especially needs the multimedia to carry on the supplementary teaching. In the course of teaching, we should strengthen the emotional interaction between teachers and students. In many universities, teachers in multimedia teaching, often just like a movie, the teacher in the play, the students into the audience, during playback of multimedia courseware is often only a point according to the playback order and not to leave any students thought of interaction time. In this way, teachers and students cannot reach the emotional exchange and communication. In the process of College Ideological and political education, in order to strengthen the classroom interaction, to make students really become the protagonist of the classroom.

As is known to all, the new, scientific and reasonable teaching mode is the key to the success of the teaching practice. Therefore, in the process of applying multimedia to college students' Ideological and political education, it is necessary to innovate the teaching methods and methods in order to achieve the ideal educational effect. In the practice teaching process, through the use of various kinds of rich and colorful pictures, sound, video, text, and other kinds of multimedia technology elements. At the same time, should fully take the "interactive" classroom communication mode, active classroom atmosphere, so as to fully arouse students' learning interest and participation passion, let the students to improve their ideological consciousness and political quality in the process of actively participate in classroom, students will be widely attracted to teaching practice, so as to help to achieve the ideal teaching effect.

4.3 Strengthen the cultivation of teachers' basic knowledge of computer

The teacher through multimedia let students form a correct way of thinking, to stimulate interest in learning, the correct and reasonable use of multimedia, for some easily confused knowledge, play multimedia vivid role play an important role in the teaching, timely use of multimedia system to strengthen the knowledge for knowledge, some involved the repeated difficulties the demonstration, and ultimately achieve the best teaching results. In the multimedia teaching of College Ideological and political education, teachers' mastery of multimedia technology often determines the ability of teachers to control the multimedia teaching. In the modern multimedia teaching requirements, the school should not only strengthen the construction of multimedia and network hardware and software, but also to strengthen the cultivation of university teachers encourage teachers to teaching multimedia courseware development and use.
Adequate hardware support and strong software support is the most important factor to promote the application of multimedia technology in the ideological and political education in Colleges and universities. This shows that all kinds of colleges and universities should increase the human, material, financial resources and other aspects of the ideological and political education of college students in the input of multimedia teaching. On the one hand, the scientific and reasonable configuration of multimedia teaching facilities, fully tap the potential of multimedia teaching, and strive to achieve the ideological and political teaching and illustrated audio-visual taste. On the other hand, increase the training and construction of College Students' Ideological and political teachers, and strive to cultivate a group of high professional literacy, but also has a certain knowledge of computer and multimedia technology and the ideological and political teachers.

5. CONCLUSIONS

The development of modern science and technology, especially the rapid development of information communication, Internet, multimedia TV network technology has greatly influenced the contemporary college students. It has greatly changed the students learning, living habits and the way of communication with the outside environment, the present college students' ideological trend many new features, so as to put forward many new challenges in the new era of Ideological and political education of College students. At the same time, as a result of high technology means to ensure that the information is very timely and unlimited abundance, it provides a new way for the ideological and political work in the new era. Therefore, the ideological and political education workers should actively learn and master modern science and technology, and it is successfully applied to the field of Ideological and political education work, improve the technological content of the ideological and political education, ideological and political education work to rise from a simple didactic tradition for modern science and technology means. In the information age, the information flow is big, the education for the analysis, judgment, decision-making time is more and more short, the education effect is more and more depends on the highly development of the information technology and the educational level of knowledge.

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