The Integrated Model of Technology and FLASH Multimedia Courseware

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Abstract: Education informatization is an important way of education reform, education informatization is aimed at promoting information technology in education, realizing the information technology and curriculum integration effectively and achieving remarkable results. Only in this way be possible to promote the reform and development of education. In this paper, it discussed the information technology and multimedia courseware FLASH integration, which is in order to be able to find out the ideal teaching model.

Keywords: information technology, curriculum integration, teaching model

1 Introduction

In 21st century, knowledge and information generation, dissemination and application of knowledge-based world economy will account for the dominant position. Information technology are having an extremely far-reaching impact to all aspects of society, the rapid development of information technology has laid a solid foundation for the development of knowledge-based economy. Country’s comprehensive national strength and international competitiveness increasingly depends on the development of education, technology progress and knowledge innovation. Education will play an increasingly prominent role in the course of the economy development. However, education is now faced with a series of challenges, reform is urgent; education informatization is an important way of education reform. Education informatization is to promote the information application in education, which is truly an effective integration with the curriculum and achieving remarkable results, only in this way be possible to promote educational reform and development. Therefore, the education information is the core of information technology and curriculum integration.

2 The Content of Information Technology and Curriculum Integration

The information technology and curriculum integration is a kind of an teaching-learning form, which through the effective integration of information technology in teaching various subjects to create a new type of teaching environment, to dominant position of students to “ independence, exploration and cooperation “ for the feature. Thus, it can activate the students’ initiative, enthusiasm and creativity, so that the traditional teacher-centered structure can be changed fundamentally[1]. The essence and purpose of “Integration” is to change the traditional teaching structure.

Since 1959, the American IBM computer company had developed the first computer-assisted teaching system, the information technology and curriculum integration had been experienced three stages, which are CAI (computer-assisted in structure), CAL (computer-assisted learning), IITC (integration information technology into the curriculum). The application of the information technology and curriculum integration in education is wider and deeper than CAI and CAL, which treat the computer technology as tools and means. However, “integration” does not exclude the CAI. Because whether as the visual presentation aids of breaking the teaching focus or as collaborative communication tools to promote independent learning and cognitive tools, it can be treated as a link or local of the whole process. Therefore, the information technology and curriculum integration emphasize to use...
the information technology to create an information-based teaching environment. The environment should be equipped with many functions, such as creating the situation, thought-provoking, information access, resource sharing, multiple integrations, individual inquiry, collaborative learning and so on. It also support “Dominated-combining” the new education structure and mobilize the students’ initiative, enthusiasm; we have reached our goal that develop the students’ creative and practical ability.

3 The Integrated Model of Information Technology and Flash Multimedia Courseware

The curriculum and teaching process is generally divided into three stages, including the “before class” rehearsal preparation, classroom teaching and the “after school” contact summary. We define the classroom teaching as “curricular stage”, and the “before class” and “after class” stages as “extra-curricular” stage. Therefore, based on the teaching process, we divided the information technology and curriculum integration into the “Extra Model” and “Curriculum Model”.

Flash multimedia courseware is a required course in public to our normal sophomore students. The setting of the course is aimed at enabling students to master the use of Flash animation software, and on this basis, to work independently with educational, scientific, technical, artistic multimedia courseware. Thus we can see that there are two objectives of studying the course. First is to use the Flash animation software skillfully. Second is to learn to design and product the courseware. It is a curriculum which is to develop students’ practical ability and the capacity of use the integrated knowledge. Students learn this course as a basic skill to master in the future employment.

Based on the analysis of the Flash multimedia courseware making process, I have summarized several models of the integration of information technology and the course. Through the appropriate combination of these types of models, the teaching effect will be improved.

3.1 The Integration Mode Which is Consist of Information Technology with Making FLASH Multi-Media Courseware

3.1.1 The multi-media class integration teaching mode

The multi-media classroom is equipped with multi-media computer, projection screen and multi-media accessories form into teaching environment. In this environment, it breakthrough the traditional class limits which teaching depends on telling and writing on the blackboard. The multi-media could emerge words, pictures, audio & video, animation and many kinds of media information in a vivid intuitively way. Making FLASH multi-media courseware is an operational course. In the multi-media class environment, we could intuitively show students the operational course, helping the student easily to understand and memory, these courses consist of 30 credit hours. Moreover, it requires 30 accordingly credit hours to practice on the computer in the class, the course is operated by student’s practicing and teacher’s supervising. The teaching task is fulfilled by demonstration explaining and practical instruction.

According to this mode to teach, we could better show the teacher’s leading place, expressing more information and saving more time. Teacher could express knowledge and supervise the teaching course at the same time. But this kind of communicating between teacher-student and student-student is very few. Although lacking the concentration to the student’s principal part, teacher doesn’t reject the student’s initiative studying, the initiative studying is still in minor place during student’s initiative studying. This mode is not good for students to blaze new trails. So it can only be a course in the integration of the information technology and making FLASH multi-media courseware.

3.1.2 Multi-Media Net Classroom Integration Teaching Mode

The multi-media classroom generally has board cast teaching, screen supervising, screen record & re-
ply, documents downloading, electronic raising hands, electronic teaching whip and many other functions. In the integration mode of the multi-media classroom, the teacher’s explaining demonstration is separated with student’s operation into two divided course. It’s not good for the question’s response and solving. In the multi-media net classroom integration teaching mode this problem could be solved better. Students could ask their questions any time they want by raising electronic hand. In the environment of multi-media net classroom, teacher can not only teaching through boarding cast to show the students demonstration and make the students watch and operate at the same time, but also individually guide some students who ask questions by raising electronic hand; students could also communicate with each other through communicating function. So the multi-media net classroom integration teaching mode has the feature of general multi-media room, it can also make use of Internet connecting function and source share function to offer student a nice cooperation and communicating way.

The multi-media net classroom integration teaching mode has the features of scene of blazing new trails, expanding the studying source, offering cognizing tools, offering communicating environment and offering researching environment. So in this mode of teaching, teachers could still be reflected the teachers’ dominant places. Meanwhile it could also reflected the students’ principal part.

3.1.3 Inquiry Model of Teaching

Inquiry Learning is a mode of teaching which can help students achieve curriculum standards about cognitive objectives and moral objects from contemplating, making a thorough inquiry initiatively and cooperation and interflowing through the relevant knowledge points of instructional objectives\(^2\). Under this kind of mode of teaching, teachers create the circumstances and raise questions first. Then students experience tasks and cooperate and interflow based on the problem analysis and they finally accomplish the pedagogical tasks.

Inquiry Model of Teaching not only reflects students’ main status well, but also to FALSH courseware curriculum, the premise of accomplishing the Inquiry Learning is to have the basic skill of operating flash and fundamental theoretical direction of courseware design and fabrication. Therefore, this kind of mode is appropriate for later study of courseware curriculum. During the process, teachers should express their leading roles to observe and direct the students. Only by this way can they insure the learning effect of Inquiry Learning.

3.2 Extracurricular Integrated Mode of Information Technology and FALSH Courseware

3.2.1 Investigative Model of Teaching

Investigative Learning generally means students designate a real issue independently to study under the guidance of the teachers’. They obtain knowledge initiatively during the process of the study, and they finally solve the practical problems\(^3\). In this mode, students are the presenters of the problems. They choose issues independently according to their interests. At the same time, students analyze problems, put forward solution and put into effect and then solve the problems independently. Teachers play roles of mentors and riggers in the procedure of problem shooting. Aiming at FALSH courseware curriculum, Investigative Model of Teaching requires students to have good rationale and technical operation skills. Therefore, learners can only use this curriculum based on the sufficient study of the curriculum while they choose the matters after class and complete the courseware.

3.2.2 Just-in-Time Teaching

Just-in-Time Teaching is often translated into timely teaching. It appeared as a model of teaching at the end of last century in American universities. As computer technique and network techniques are developing, this model of teaching is gradually used in more and more elementary and secondary schools.
Just-in-Time Teaching is set up on network learning tasks and active participation classroom environment. Taking hour and economic aspect into account, I don’t select to construct website to finish the course but use Tencent QQ which is familiar with teachers and students directly. From QQ group forum function, teachers arrange learning tasks at any time, supervise students’ discuss about the subject. To guarantee the feedback timeliness in the meantime, teachers and students arrange the specific time to discuss online. Picture 1 is a case of discuss between teachers and students.

![Figure 1. Just-in-Time Teaching](image)

4 Conclusions

Information technology and curriculum integration stresses to create an informationized academic environment. As for environment, it is an aggregate of resource and implement. We hope each learner can deepen his and others’ understand through the learning ecology which devotes to the environment we create.

In the process of the integration of information technology and FALSH authorware curriculum, we really not use a sole model but use different mode according to different section and need to reach the optimization of integration effect. For this reason, during the practice of information technology and subject curriculum integration, teachers should be on top of various kinds of information technology. They should also choose one or more combinations of model of teaching on the basis of the need of each different course, the characteristics of the teachers, features of the students and the actual conditions of school education. Teachers choose one or more combinations of model of teaching to make a huge promoted effect of information technology and transformation of education by means of high-quality teaching design to achieve high-quality curriculum integration. Information technology and curriculum integration emphasizes creating an informationized academic environment. Meanwhile, environment is an aggregate of resource and implement. We hope each learner can deepen his and others’ understand through the learning ecology which devotes to the environment we create.

References