Practice of the Course Integration between Information Technology and Fine Art Education in Normal University

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Abstract. At present, information technology and curriculum integration have entered a deeper level, how to apply information technology to the teaching of various disciplines has become a hot topic in the research of domestic scholars. In this paper, we presented the practice process of information technology integrating with fine art education professional curriculum in normal university, including curriculum design, information retrieval ability training, emotional information and information ethics cultivating, development of autonomous learning, e-learning environment construction and teaching feedback and evaluation mechanism establishment.

Introduction

Since curriculum integration was introduced into China in 1998[1], it has become the research hotspot that how to apply information technology to the subject teaching process, build a digital learning environment for students, cultivate the students' consciousness of using information technology and improve the ability to deal with information technology. As a normal university, student itself is a teacher in the future. Therefore, the task of the curriculum integration in normal college should contain teacher training, environmental construction and professional curriculum integration[2]. While the state-funded fine art teacher education was established in 2007, our college set up a course named "The Application of Information Technology in Fine Art Teaching" as an attempt of the integration of information technology and art education curriculum.

WebQuest which commonly referred to as "research study on special topic" in home is believed to be one of the greatest impact and effective integration of extracurricular teaching mode on a global scale.[3] Due to the tasks of curriculum integration in normal art education include training future teachers and improving students' information literacy, we divided the course into three topics. The first topic is mainly for "future teachers", involving reviewing the basic concepts, main tasks and methods of curriculum integration, introducing the country's relevant policy and the present situation, development trend and comparison of foreign curriculum integration with the domestic one. The main task of the second topic is to enhance information literacy of the students which specifically includes three units. Unit 1 is for student information retrieval and analysis ability training. Unit 2 is the actual need upon binding of student employment which focuses on the preparation process using a variety of software and other related problem solving method. Unit 3 is a transition to the next topic and it also trains students' information literacy in positive emotions and consciousness. The third project is to develop and train the ability of open source software.

The Practice Process of the Course Integration

Cultivating students' acquisition, analysis, processing, and the use of information of knowledge and ability are regarded as the most fundamental goal of information technology curriculum integration[4].

One unit in the second topic is mainly to introduce students to use the major search engines of home and abroad, such as the use of advanced search functions to optimize search results and an accurate search and combinational search in use of subject keywords. Other search services provided by these search engines are also instructed such as image search, material search and academic search. In addition, there are many professional papers and materials in the journals database and the academic dissertation database in the school library and these papers are all free for the students during the study at school. Before learning this course, students' awareness of the use of these materials is not strong and they also do not even know how to use these resources. In this unit, the retrieval methods and skills of using these journals and papers are introduced in detail. In practice, some featured contents, such as articles browse by professional journals in Wanfang Database, are their favorite for students. They think these electronic means can replace paper journals in some kind of degree. Meanwhile, they are free of charge and very convenient.

Cultivating students' active information consciousness and good information morality quality is one of the most important contents in the course of information technology curriculum integration [5]. Based on these considerations, we presented the introduction of the open source operating system and anti-piracy related topics together. anti-piracy campaigns are introduced elaborately into the class which were launched by the operating systems and software design leading enterprises such as Microsoft, Adobe and Autodesk in recent years. By listing some specific cases like the Tomato Garden, Dongguan Dynamic Network and Dazhong insurance and then citing the users and experts comments on these events, we pointed out the harm of piracy and the necessity of software legalization for the students. Taking this opportunity, we recommended an open source operating system, Linux, and open source software to students and shared the main spirit of the open-source culture just like cooperation, co construction and share, especially emphasized the advantages of open source software in cost, security and expansibility.

After the concept of open source, we timely introduced the Linux operating system and the art and design related open-source software, including Gimp, Inkscape, Mypaint, Blender and so on. In the learning process of these software applications, it should pay much attention that we cannot completely rely on the teacher's explanation or the training within the class. On the one hand, the course is only 36 periods totally, so it is impossible to give the thorough, systematical and detailed explanation as full software course. On the other hand, the main aim of learning the software in the curriculum integration course is not to teach students to use the software, but to fully mobilize the students' interest and enthusiasm under the guidance of teachers during the learning process of the software. The students should complete the software learning in the use of internet, books, video and other resources in extra-curricular time. The most important thing of these processes is to develop the students' self-learning ability which is more important than that of using software.

According to the WebQuest theory, it is an important way to improve the learning efficiency by making full use of extra-curricular time and achieving autonomous learning. One of the main methods is task-based learning. The teacher assigns the task to the students in time, so that students can learn with problems and tasks. In our class, after talking about the relevant theoretical knowledge of curriculum integration and information retrieval methods, we arranged the first task, that is, taking curriculum integration as the theme, according to the thesis template provided by the teacher, students need to write the course thesis which include target journal analysis, reference literature review, the innovations of the paper, abstract and so on. This task is not only to consolidate and review the theory of curriculum integration, but also to test the ability of students' information retrieval. Theory of curriculum integration and related papers are far more than what we talked about in the class so that students have to retrieval, filter and process the related articles themselves. The first task of course is theory-based task while the second task is a creative task of fine arts: complete the art and design work by using the open source software mentioned by the teacher. Since the students know little about the open source software before class, the teacher requires them to use software to complete the art work,

so they have to learn more about the software by themselves. After the students complete two tasks, the last two course hours are used for the work report. The process of the work report is not only the inspection and supervision of the former study, but also the process of learning from each other, mutual discussions and comparing with each other. Some student works made by Inkscape and Mypaint are shown in Fig. 1.

Figure 1. Student works made by Inkscape and Mypaint.

Construction of digital learning environment is an important task of curriculum integration, but also an important way to achieve positive interactions between teachers and students and to improve the students' learning efficiency. Making full use of the relatively developed Internet nowadays to build collaborative teaching strategies can often achieve a multiplier effect [6]. We set up a QQ group and a WeChat group for our curriculum so that the teacher can send the recommend books, websites and other auxiliary information to the students by these real-time communication network platform. At the same time, if students have any questions, they can ask the teacher for advice timely. Students usually can also make one-way or multi-way discussion through this network organization which greatly improves the learning efficiency and the learning experience of the students: "The teacher is all around us and I am not a person in combat".

Conclusions and Implications

These are some of our specific attempt at art curriculum integration process. In several years of teaching, through the study of relevant curriculum theory, we have found that there are still the following problems need to be improved.

First, in each semester summer, some of our students will go to rural primary and secondary schools for volunteer activities and all the students will go to practice bases before graduation. In the future of information technology curriculum integration, we should make full use of these practical opportunities so that the students can apply what they have learned in class into practice.

Second, we want to adjust or extend the course hours for the discussion of the course paper. The effect of the current curriculum work report is very good, so we should apply it to other sections. Especially if the information retrieval interaction is discussed and reported, it will form the effective feedback between teachers and students or among students in information retrieval section.

Third, the existing network environment construction is mainly based on the QQ group and other real-time communication platform which has the advantages of real-time, but the disadvantage is that the course related information cannot be effectively accumulated. Later in the course, we can use the BB (blackboard) platform purchased by the teaching office or the open-source Moodle platform to publish the content to the network. Thus, art work of the students and outstanding course papers from so many years can be published on the platform.

Fourth, in the process of theoretical research and the curriculum integration in other disciplines, it has formed a relatively complete curriculum integration theory system, such as the popular TPACK model in foreign countries [7]. How can we absorb the theoretical spirit and apply these theories to the curriculum reform combining with the actual situation of teaching? For example, how to strengthen the teachers in learning and training professional theory of curriculum integration and so on.

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