Information Technology Education in Primary and Secondary Schools Should Reform in China

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ABSTRACT

The teaching of information technology education has implemented for more than 30 years in China, but the information technology courses exist very serious problems in the practice teaching process. This article from four aspects present the current problems in the information technology in the teaching process, and detail on how to reform it.

The teaching of primary and secondary schools information technology education has implemented for more than 30 years in China, but exactly what results have been achieved in education over the years, the author as a teacher of colleges, surveyed new students and found that new students in master of information technology courses are different, but about the ability to apply the information technology, the majority of them are blank, even they will not operate the basic typesetting the document. This phenomenon against the development targets of information technology education in primary and middle schools, therefore we must reform the primary and secondary school information technology education.

We compared "MSOffice on the national computer rank examination level syllabus (2013)" with "the school information technology curriculum guidelines (trial)" and found that their contents are basically the same. Freshmen attend the national computer rank examination level MSOffice mock exams, students performance is very bad, this indicate that the primary and middle schools information technology courses exist very serious problems in the practice teaching process in China. This situation, not only waste the national resources ,at the same time, but also waste the valuable time for the majority primary and middle schools students, and also kill the autonomous learning habits what are trained from the big data world. Therefore, the primary and middle schools must start from the following four aspects and solve the current problems in information technology education fundamentally.1-4

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1. Rational allocation the faculty

In primary and middle schools, teachers of information technology courses are enough, but the teaching ability and professional of teachers whether achieve the requirements. In the first tier cities, the teacher of information technology education courses is the major of computer science and technology and related professional teachers, but in other areas, the major of most teachers are not relate to computer science and technology, they teaching after the short training, they know few professional knowledge of computer science, not to mention the culture of information technology, in this situation, how to give students a good information technology class, “teacher is the one with high knowledge”, if themselves are not know information technology, they will not accomplish the content of courses in "the syllabus of information technology courses of elementary and middle schools (trial)" what formulate by country.

In order to training the primary and middle schools teachers, the state has formulated the "the elementary and middle school teacher information technology application ability training curriculum standard (Trial Implementation)". From the perspective of teaching content, in the primary and secondary school teachers' information technology application ability training curriculum standard (Trial), “is only for teachers of intensive education, teachers are unable to grasp the cultural connotation of the information technology curriculum of professional knowledge and information technology courses. Minister of the education Ministry Chen Zhili pointed out, we must not make information technology education in accordance with the old ways of learning a subject to speak, to learn, to test". Information technology curriculum has its unique characteristics of subjects, information technology teachers should have a unique grasp for the content of subject. At the same time to the environment of modern information technology to have a correct understanding and to carry out the integration of the modern information technology curriculum content, so as to achieve the student understanding of information technology "cultural internalization". Short term training of teachers can not meet this requirement, students will not master the knowledge of information technology courses and operational capabilities. This phenomenon should be resolves fundamentally, otherwise the primary and secondary school information technology courses teaching is empty.

In Gansu, computer science and technology professional graduate students, to join the ranks of the teachers is very difficult, because when they attend unified exam, it does not distinguish the teaching course, all different major people participate the same exam together, they assume all the primary and secondary courses, which course teachers the school lack, they let the teacher assume the course, which is a great waste of proprietary director, also cannot give full scope to the talents.

According to the Ministry of education statistics, in recent years, the national college graduates, only computer science and technology graduates more than 100 thousand. We have so many talented people, but when all over the department of education in charge of information technology teachers, why they employ the other major teachers to take the information technology courses. After the employed other professional teachers, they give them a short term training, and then make them take the information technology courses, this employ principle is against the teaching rules.
In the national development of the "ten years of educational information development plan (2011-2020)" and "national medium and long term education reform and development plan" pointed out: “To cultivate students' learning ability under the information environment.” “To fit the requirements of information and internationalization, to continue to popularize and improve information technology education, to carry out a variety of ways of information technology applications and create green, safe, civilized application environment. Encourage students use the information to active learning, autonomous learning, cooperative learning; training students to use information technology to learn good habits, development in specialty, improve the quality of learning; enhance students raise a question, problem analysis and problem solving ability under the network environment”. “To speed up the construction of educational information”. “To improve primary and secondary school students per 100 have computer units, equipped with multimedia distance learning facilities for rural primary and secondary schools; building effective sharing, covering all types of education at all levels of the national digital teaching resources library and public service platform”.

Countries have invested a lot of money, if the teachers problem are not completely resolved in primary and middle schools, the primary and middle schools technology will become going through the motions, they just completed the set by the state for the index, it has the little effect for the real education, and also a waste of national resources.

2. ENSURE THE TEACHING COURSES CONTENT

Through the newly enrolled college students survey found that, in primary schools and middle schools, most students playing games and watching a movie in information technology classroom, teachers in the classroom not in accordance with the "primary and secondary school information technology curriculum guidelines (Trial)" into the teaching organizations, schools and the teaching management department not have an effective supervision for the course of information technology, and under the press of senior high school entrance examination and college entrance examination, most schools are essentially gave up the teaching of information technology, only in name but not in fact. In this case, the information technology courses teaching content in the teaching activities become the furnish and decorate.

Information technology courses as a practice courses, with the situation of our country raise the project-driven plan for many years, the primary and middle schools also is the form of traditional teaching, teachers speak, and the students listen, this way simply can not achieve the teaching goals. "Ten years of educational information development plan" point out: under the information environment, the ability of students autonomic study should have a comprehensive improve, make students have a will to study use information technology and have the ability to use the information technology discover, analyze and solve the problem. How to trained the will of students study use the information technology? How to make students have ability to use the information technology to discover, analysis and solve the problems?

Students only learn information technology course content, mastered the information technology knowledge, be familiar with the use of information technology as a tool, to
be interested in using information technology for learning. If students do not use the Internet, how students gain knowledge from the Internet? Therefore, the school must be strictly in accordance with the "information technology curriculum guidelines (trial) "to information technology classroom teaching for students to master course content and complete projects, so as to achieve the goal. Following in junior high school information technology curriculum module, for example, that junior high school students should understand a basic method for word processing.

Module three is divided into two parts: one is a text editor, modify; the second is layout design. When teaching this part, first demonstrates to students a Word document what the teacher has finished, so that students have a perceptual knowledge, and teachers according to the teaching content of the lecture, let the student take the task class. And module content, edit the main text of the text input, this knowledge, combined with module b, let students choose their favorite Chinese input method, his compositions were entered, while emphasizing the correct fingering. Most of the students are using pinyin input method text entry, this student is very easy to learn. As for the modifications of the text, the main content text operations such as select, copy, move, delete, these actions the teacher demonstrates, students keep up with the action. For the layout of design teaching content, mainly in the "font" and "paragraph" two-part demo, when you are all finished, students produce a rational cognitive. Through the study of this module, students are able to input about what you're writing and editing, which would achieve the objective of this module. Therefore, the information technology course content, teacher according to the "school information technology curriculum guidelines (trial)" provides that the character content of the teachers and students of the University, so as to maximize the teaching task.

3. IMPROVING STUDENTS' PRACTICAL ABILITIES

"On speeding up the construction of school information technology curriculum guidelines" stated: "Ministry of Education decided to speed up construction of school information technology courses, are important measures to promote information technology education. Information technology curricula should take into account students ' intellectual development and knowledge with different age and emotional needs. Elementary school, middle school and high school teaching and learning content should have its own specific goals and reflect the emphases of the various phases. Each stage should pay attention to training students in the use of information technology to the ability to learn and explore, the spirit of innovation". "Education information ten years development planning (2011-2020)" point out: under "information environment situation, students' independent learning capacity have full upgrade, the capacity of using information technology discover, analysis and solution problem"; "full-time compulsory education information technology courses standard" and "the elementary and middle schools computer courses guide platform" for requirements in primary school stage, "established on computer of perceptual, when using information technology, they can learn cooperation with others, learned using and age development match of multimedia resources for learning." "To carry out direct and independent learning, and develop personal hobbies and interests." the junior should "learn how to
use multimedia tools and related equipment and technology resources to support learning other courses, collaborating with others or to solve problems related with the course and complete a variety of tasks." "Learn the basic operations of computers, train information processing abilities of students." So as to enable students to master basic operating concept and the application of information, knowledge and practical abilities.

Thus it can be seen, in the information technology education in primary and secondary schools, to master the basic operations, knowledge and concepts and the application of information ability in practice is very important. Information technology course is based on the operations-oriented characteristics, in the process of teaching, students should learn how to operate, rather than letting students know the knowledge, which is very important. Therefore, in the course of teaching, student operated, I think, "project-driven" in the course of information technology should get a better utilized. During the course, it should be planned with a teaching assignment, design the content to enable students to complete projects, so as to achieve the goal.

How to design good content, it has a great relative with whether can motivate students interest in learning. Teachers according to the students' age and geographical features, combined with other disciplines arrange the teaching contents, fully mobilize the initiative of students, students under the teacher's guidance, initiative to complete the lesson, be sure to take the classroom to students, make students led the class. Of course, this require teachers prepare lessons carefully, making full use of local students characteristics, develop a detailed and complete content.

4. GUARANTEE THE QUALITY OF TEACHING AND ASSESSMENT OF STUDENTS' ABILITY

Through my new random surveys of college students and found that they didn't grasp the basic contents of the course of information technology, basic fingering is wrong. Therefore, in the information technology learning in primary and secondary schools, there is no learning under the guidance of teachers, only arranged this course on the schedule, but there is no normal classroom teaching. There are quite a few students reflect, in the school information technology curriculum class, students are playing games or watching cartoons, this phenomenon actually exists, I have learned that in some good teaching conditions primary and secondary schools, this phenomenon is also true.

How to put an end to this phenomenon is a more difficult question. There are many reasons, but the particularly important aspect is not monitoring the quality of teaching, which schools, teachers and students on this course are not taken seriously. Schools in order to finish the checks arranged this course, teachers complete the teaching task is only to walk though, students want relax and play in this class, so that form from current forms of teaching. But this way serious waste the resources, at the same time, let the students lost its self-study tools, more important is to get some students interested in information technology lost opportunities for early learning of information technology.

Therefore, the necessary quality control of teaching effect of the course of information technology is essential. Education authority or school teaching should formulate quality control measures, is mainly based on the full-time compulsory education curriculum
standard of information technology, allow students to complete the operations stipulated therein. Monitoring of the quality of teaching not to focus on memorizing knowledge, only actions of the Student Union on the line, and students should be aware of relevant laws and regulations.

REFERENCES