

The Present Situation and Strategies of the Professional Development of Information Technology Teachers

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Abstract: With the deepening of the reform of basic education curriculum and the rapid development of basic education informatization, primary and secondary school curriculum began to explore the direction of cultivating students' information technology skills, to study the integration of information technology and subject courses, and to gradually realize the transformation of information technology teaching methods, students' learning methods, teacher-student interaction methods, and to enhance the level of teachers' professional development. This article will analyze the information technology teacher professional development direction from the following several aspects.

1. Introduction

With the promotion of basic education informatization and the deepening of a new round of curriculum reform, the status of information technology education in primary and secondary schools has gradually become important. Information technology education is pushed to a new height. Information technology teachers, as direct practitioners of information technology education, act as teaching tasks to cultivate students' information literacy and promote students' all-round development. The professional teaching literacy of information technology teachers directly affects the failure and success of information technology education. Therefore, this paper mainly studies the current situation of the domestic information technology teacher industry, and discusses the direction of professional development of the industry.

2. The Information Age Environment, it Brings New Challenges and Opportunities for the Professional Development of Information Technology Teachers

2.1. Background of it Teachers

As early as 1984 Comrade Deng Xiaoping pointed out : " the popularity of computers to start with dolls ." The decision of the CPC Central Committee and the State Council on deepening educational reform and comprehensively promoting quality-oriented education points out that "computer operation and information technology education are popularized in high schools and qualified junior and primary schools ." In order to further implement Comrade Deng Xiaoping's guiding ideology of "three faces ", implement the spirit of the Fifth Plenary session of the 15th CPC Central Committee, deepen educational reform, comprehensively promote quality education, and train high-quality talents and workers with innovative spirit and practical ability, the Ministry of Education has decided to open information technology courses in primary and secondary schools throughout the country.

On November 14, 2000, the Ministry of Education issued the "Guidelines for Information Technology Courses in Primary and Secondary Schools (Trial Implementation)". The main tasks of the information technology courses in primary and secondary schools are to cultivate students' interest and awareness in information technology, to enable students to understand and master the

basic knowledge and skills of information technology, and to understand the profound impact of the development and application of information technology on human daily life and science and technology. Through information technology courses, students have the ability to obtain information, transmit information, process information and apply information, educate students to correctly understand and understand cultural, ethical and social issues related to information technology, and use information technology responsibly; cultivate students' good information literacy, use information technology as a means to support lifelong learning and cooperative learning, and lay the necessary foundation for adapting to the learning, work and life of the information society. The circular explicitly requires the timing of information technology courses in primary and secondary schools, as well as the inclusion of information technology courses in graduation examination subjects in secondary schools. The examination is graded. Where conditions exist, the education sector may organize pilot work on the level examination of information technology. When conditions are ripe, they may also be considered as subjects for the general college entrance examination[1].

The opening of information technology courses in primary and secondary schools is both a challenge and an opportunity for information technology teachers. Information technology teachers are not only the pioneers of information technology teaching, but also the important propagandists of popularizing information technology education, and also the bridge to the success of information technology education.



Figure 1 Status of information technology classes

2.2. Status of Information Technology Teachers

Information technology courses, as a necessary means to popularize information technology education in China, have been widely opened in primary and secondary schools all over the country. The main task of information technology course is to cultivate students' information literacy, so that students can master the basic knowledge of modern information technology and have modern information technology skills. In today's society, it has become a necessary skill to use information technology, and professional education courses are very necessary.

In the face of the current era of rapid development of information, information technology teachers in the actual teaching, to grasp the part of information literacy teaching, always feel that there are certain obstacles, feel that the amount of knowledge in this area is too small, relatively empty and dry difficult to grasp, so now all countries are carrying out the corresponding teacher training work to cope with the changes of the times. From the international experience, there are three main forms of teaching summarized, namely online training, distance learning and face-to-face communication, which are mainly taught by universities and training institutions. China as a developing country, this training is more important, learn from international experience, should take its essence, discard its dross, according to the national conditions, design a socialist road with Chinese characteristics education and training model. Our country has a vast territory and different regional education and teaching cultures. It is necessary to select effective training methods, compile training methods in line with local characteristics, combine online teaching with field-to-face teaching, attach importance to the exchange between teachers and students before training, set

up a network-based communication platform, and improve the professional knowledge, professional skills and professional accomplishment of information technology teachers in the teaching process.



Figure 2 Trends in contemporary information technology developments

2.3. Objectives and Characteristics of Teacher Professional Development in the Information Age

In the information age, education is pushed to the network data, no matter the teacher's professional accomplishment, teaching method, teacher's role, or the teaching environment facilities, the form and quantity of information resources have changed. Therefore, the professional development of information technology teachers has a clear characteristics of the times. In the information age, teachers' professional knowledge, skills and attitudes are more demanding. In the information age, the direction of information technology teachers' professional development must be : (1) using information technology for autonomous learning and cooperative communication ; (2) applying information technology to carry out effective teaching and academic research ; (3) using information technology to provide students with space for exercise and personality development.

In the information age, the professional development of information technology teachers has new characteristics, the most prominent characteristics are information and diversification. Whether it is information teaching or teaching courseware design, it presents teachers' professional knowledge, skills and literacy characteristics. In the 21st century student-centered teaching methods, teachers should be the guide of learning, researchers, designers and developers of high-quality resources. Information technology is also an indispensable tool to help teachers learn from experience, learn efficiently, broaden their horizons and share resources[2].

3. The Information Age Environment, the Information Technology Teacher Specialized Development

3.1. Teacher Training Should be Tailored to Local Conditions and Within the Means

In response to the call of the State, information technology education in primary and secondary schools is being implemented in all parts of the country, and teachers who teach information technology are being trained in order to enhance the professionalization of information technology teachers. Because of the different economic forms in all regions of the country, there is also a certain gap in the level of information technology between teachers and students, training should be conducted in accordance with their aptitude before the implementation of the training.

3.2. Professional Development in Classroom Teaching Practice

Classroom teaching is the main place for teachers to exert their professional knowledge, which promotes the development of students and also promotes the development of teachers. In the new curriculum teaching, the biggest change of teachers is to examine, analyze and solve their practical problems in teaching practice with the eyes of researchers, to promote teaching with problems, and

to strive to practice "to create a dynamic new classroom with wisdom ". After class, we should reflect deeply on our teaching methods, teaching strategies, teaching behavior, teaching process and its results, reflect on the success of this class, and then change our teaching methods and make our students understand the principles of it easily through some interesting teaching activities[3].

3.3. Take the Essence of Interaction and Make it Worse

IT teachers have the most direct interactive communication platform - the Internet. Information technology teachers can interact with information technology experts and peers across regions through the Internet. Through equal and honest professional exchanges with peers, exchanges, inquiry, learn from each other, learn from each other, there are places to remind each other, so as to encourage and share experience. To participate in the most direct, multi-level and multi-channel learning and communication activities, information technology teachers can be able to do without leaving home to receive advanced education ideas, education methods training. It is a shortcut for IT teachers to get professional development[3].



Figure 3 Current areas of information technology

4. Summary

At present, the work of information technology teachers is not only complicated but also large, which makes many information technology teachers have poor professional identity and work enthusiasm is hit. Schools and education departments should actively promote the status of information technology teachers, clear job responsibilities, and improve the management system of teachers. Conditional schools can outsource work such as information technology equipment and facilities maintenance, so that information technology teachers can focus on teaching work and stimulate the internal development needs and desires of information technology teachers.

In the 21st century, an era of Internet prevalence, especially people's contact information are closely dependent on the Internet. The curriculum of information technology should be popularized in an all-round way, and the specialization of information technology teachers should be strengthened and improved to conform to the development of the times, to break the traditional teaching mode and to develop a comprehensive, integral and continuous teaching mode, which involves many complicated factors in the process. Our information technology teachers should also develop the habit of being good at analyzing and examining various factors, learn and formulate their own development plans and gradually embark on the road of self-development. The implementation of the new curriculum is glowing with the passion of teachers, exploring the potential of teachers, but also creating a team of high-quality teachers, our information technology teachers in the practice of the new curriculum reform has also undergone historic changes, we believe that each teacher in this change will find their own strength to find their place and make their own voice[4].

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References

- [1] Outline of Information Technology Curriculum for Primary and Secondary Schools (Trial Implementation). World of Library and Information in Primary and Secondary Schools, no. 1, pp. 5-6,10, 2017.
- [2] Xie, Haigang. A study on information technology for the professional development of teachers. Urban tutor: First half month, no. 6, pp. 272-273, 2017.
- [3] Chi, Xinhai. A probe into the Professional Development of Information Technology Teachers. Education of the Times, no. 2, pp. 88-88,89, 2019.
- [4] Chi, Xinhai. A probe into the Professional Development of Information Technology Teachers. Education of the Times, no. 2, pp. 88-88,89, 2019.