

# Research and Discussion on Teachers' Adaptability in Modern Information Technology Education

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**ABSTRACT.** *The rapid development of modern information technology has broken the limitation of time and space. It is infiltrating into the field of education at an alarming rate, which has brought about profound changes in education. The rapid development of modern information technology is a double-edged sword, which enables teachers to have the conditions and basis for using modern information technology. In the process of modern teaching, teachers should learn to use the network and give full play to the potential advantages of the network in education, so that the future of education will be full of hope and vitality.*

**KEYWORDS:** *Modern information technology; Teachers; multimedia; Network; Classroom teaching*

## 1. Introduction

The invention of computers in the 1940s was a major advancement in information technology[1]. As a tool for information processing, computers have advantages in information storage, communication, and communication that are unmatched by other media technologies. In the 1990s, the comprehensive application of multimedia with computer as the main body and the combination of computer and network technology that promoted the popularization and development of educational media, and since then, modern educational media have been involved in teaching. Nowadays, advanced media technology is no longer merely an assistant of education technology or teaching method, but involves in classroom teaching comprehensively from the aspects of learning content and learning mode[2].

## 2. Training ideas to improve teachers' ability to apply modern information technology

With the vigorous development of contemporary network education, it has become an important social problem to continuously improve the ability of teachers to use modern information technology to adapt to the new classroom teaching[3].

This realistic demand calls for strengthening the training of teachers. Here “training” means not only cultivating and training teachers in skills, but also guiding them to use the methods they have learned to engage in educational and teaching activities so as to improve the quality of education and teaching[4,5].

### ***2.1 Formulating medium-term and long-term plans for teacher training***

The training of teachers in the application of modern information technology should change with the acceleration of the development of modern information technology. The development and changes of modern information technology constantly inject new content, which puts forward different requirements for the content selection, methods and organizational forms of teacher training. Before the start of training, different learning plans should be formulated according to the cognitive level, experience background and learning desire of different groups of teachers. Training should be carried out step by step in stages, medium and long-term teacher training plans should be formulated and implemented in accordance with the key points of the plans, so that teachers can realize the organic combination of modern information technology and classroom teaching through training.

### ***2.2 Promote the integration of modern information technology and teaching in various disciplines through training***

In the training process, teachers should be helped to use modern information technology to design the overall classroom teaching and reasonable arrangement of time and content. According to the different needs of teachers, the training should solve the confusion in the classroom teaching application of teachers, and guide the teachers to complete the integration of modern information technology and various subjects through effective classroom teaching design, so that classroom teaching in the context of information technology reflects different characteristics.

### ***2.3 Actively explore participatory training methods***

In order to guide teachers to realize the integration of modern information technology and teaching of various subjects, participatory training should be adopted for teacher training. Through the study of teaching examples, teachers are organized to communicate and discuss, and constantly modify and improve the process of teaching activities. Case study is an important part of training. It is a process of teacher interaction, cooperation and exchange, and sharing experience. At the same time, it is also a process of raising questions, collecting and collating information and conducting teaching inquiries. Through this link, we can realize the purpose of inspiration, mutual assistance, exchange and sharing.

### **3. Measures to improve teachers' information literacy**

#### ***3.1 Teachers should have the quality and ability of teaching design***

Modern information technology education mainly consists of teachers, students and curriculum resources. Modern information technology is widely used in teaching, which requires teachers to have basic network and application of multimedia teaching ability, have a strong ability to organize and design teaching, and effectively coordinate the three relationships in curriculum design, so that teachers, students and curriculum resources complement each other. In teaching design, teachers should make full use of modern information technology and information resources according to the teaching content. Teachers should learn to arrange each element and link in the teaching process scientifically and manage and utilize teaching resources effectively. In this way, students can find effective learning resources in the multifarious learning materials and develop their ability of independent learning and exploration.

#### ***3.2 Teachers should have the consciousness of continuous learning and innovation***

Teachers should have a high degree of professionalism and a sense of self-renewal. In the environment of modern information technology, teachers should constantly improve their innovation ability, demonstrate themselves in teaching, and motivate students to actively and effectively study independently, cooperatively, explore and creatively with their own creative thinking and consciousness of innovation. In this way, students can be guided to learn to think critically, be good at asking challenging and valuable questions, and learn to use learning resources to solve problems from multiple dimensions.

#### ***3.3 Teachers should have a sense of unity and cooperation***

Under the condition of modern information technology, teaching activity is a complicated systematic project, which needs teachers' all-round cooperation and exploration. Schools should advocate teachers to change the past single subject research thinking, advocate the multi-subject teacher group research thinking. Teachers should develop a sense of teamwork, learn from each other, study together, exchange and share, and promote the formation and development of modern information technology education research environment, so as to achieve effective sharing of high-quality educational resources.

#### **4. The problems that teachers should pay attention to in information construction teaching**

##### ***4.1 Teachers should choose appropriate teaching content and carefully design the teaching***

Network teaching environment is not suitable for all teaching contents, so classroom teaching is still the main teaching method. In classroom teaching, teachers and students, students directly communicate with each other, through exploring and experiencing in real situations, students' learning efficiency will become higher. Therefore, it is an important link for teachers to choose suitable teaching content and design teaching according to students' actual level.

The network has the characteristics of large amount of information, wide source and strong reality, which is especially suitable for the teaching content connected with the social reality. However, most of these contents are not the key points and difficulties that students can get through general reading. Geography, history and other contents in social sciences are suitable for this kind of network environment teaching. For example, in the course of explaining the history research course "Nanjing Massacre", teachers can not only show students the factual records, but also enable students to browse the virtual Memorial Hall of Nanjing Massacre to deepen their personal experience of this historical event by using the network environment teaching.

##### ***4.2 Teachers should prepare well before class, understand, process and publish teaching resources based on network environment***

In addition to teaching design, teachers need to spend a lot of energy publishing course resources website before class. The school can organize teachers to design curriculum resources in groups, build and release them with the technical support of technicians, so as to achieve the goal of facilitating students to use. In the teaching process, teachers must manage the course resources of network environment teaching, delete the resources that do not meet the teaching requirements, and supplement some resources related to teaching.

##### ***4.3 Strengthen the organization and management of the teaching process to give play to the leading role of teachers in the teaching process***

When organizing students to carry out network teaching, teachers should focus on students' learning. Teachers play a leading role in network teaching, but this leading role is only guidance. In addition to giving necessary lectures, the main tasks of teachers are to guide students to "learn what", "how to learn", "what problems need to be solved", "key and difficult points in learning and problems that students may have", and guide students to summarize and consolidate what they have learned.

## 5. Conclusion

In short, as teachers use more modern information technology in the teaching of various subjects, the classroom teaching process will present a new look. At the same time, with the improvement of teachers' application of modern information technology, students' information literacy will also step up to a new level.

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