

# *Preliminary Research on the Integration of Modern Educational Technology and Primary School Teaching*

**Zheng Yan**

*School Of Educational Science, Luoyang Normal University, Luoyang, Henan, 471934, China*

**Keywords:** Modern educational technology, Primary school teaching, Integration

**Abstract:** Modern educational technology effectively integrates modern educational theory with modern science and technology and applies it to education and teaching, which realizes the optimization of teaching theory and teaching practice, and has important practical significance for modern teaching. This paper analyzes the current situation of integration of modern educational technology and primary school teaching, and finds that there are still some problems in the process of integration, such as traditional teachers' lack of understanding of modern educational technology, novice teachers' lack of experience in modern educational technology, and students' uneven digital learning ability. Modern educational technology can be effectively integrated into primary school teaching from four aspects: shortening the distance between textbooks and reality, stimulating students' learning enthusiasm, solving the key points and difficulties in teaching, and improving teaching training mode, so as to enhance students' learning interest, deepen students' understanding and mastery of knowledge and improve teaching efficiency.

## **1. Introduction**

China's modern educational technology originated in the 1920s, which is a system of modern educational means and methods that apply modern educational theory to education and teaching practice, including modern educational media, media teaching method and instructional design. Modern educational technology teaching system is not only a teaching environment and system that can carry out individualized and autonomous learning, but also a teaching environment and system that can form mutual cooperation, integrating sound, text, pictures and images, so that knowledge and information can be presented in various forms. And it has wide coverage, rich content, vivid and attractive image, overcomes the linear defect of traditional teaching knowledge structure, and has the characteristics of multi-form and non-linear structure of information. It conforms to the cognitive law of modern education and fundamentally changes the pattern of teachers, textbooks and students in traditional teaching. What students are no longer faced with is a single boring text textbook and a constant chalk and blackboard classroom. In front of students are the audio and visual textbooks, the multimedia teaching environment and means combining audio and visual integration, and the teaching system using long-distance two-way transmission of the network. All this makes the abstract book knowledge in traditional teaching transformed into a three-dimensional multi-dimensional combination form easy to accept by students, so that the teaching process and

teaching effect achieve the optimal state. In the whole learning process, students make full use of their visual and auditory functions, which has multiple stimulation effects on the brain, thus significantly improving the learning effect and having a far-reaching impact on all fields of primary education.

## **2. Status of Integration of Modern Educational Technology and Primary School Teaching**

With the rapid development of modern science and technology, the development of Internet has accelerated the information flow speed in today's society. The information resources such as journals, papers and patents owned by various media have increased greatly, and the time for people to master knowledge has been shortened continuously. The rapid updating and iteration of all kinds of information has led to the loss of the original value of the knowledge and skills mastered by people. It is very important to keep up with the development trend of the times in primary school teaching. Here is an introduction to the current situation of the integration of modern educational technology and primary school teaching.

### **2.1 Traditional Teachers Lack of Understanding of Modern Educational Technology**

Traditional teachers have been engaged in educational work for many years, and the traditional educational concept has long been deeply rooted. They have become accustomed to the educational method of “a ruler and a book” supporting the whole classroom. The traditional primary education classroom is dominated by teachers, who are based on teaching materials and complete classroom teaching by writing blackboard writing and unilateral knowledge output. The classroom under the traditional education mode is boring and lacks vitality, ignoring the ability to improve classroom efficiency by using external science and technology. The lack of information-based teaching materials and modern educational technology leads students to learn paper knowledge only according to textbooks and teachers' blackboard writing, and they don't know some difficult knowledge thoroughly. Some traditional teachers are older, unable to fully realize the importance of modern educational technology. In addition, they don't have a deep understanding of modern educational technology, can't master and use it skillfully, and can't accurately implement modern educational technology into primary school teaching, which leads to the disconnection between primary school education and modern educational technology at present.

### **2.2 Novice Teachers Lack of Experience of Modern Educational Technology**

Novice teachers have learned and mastered the relevant knowledge of modern educational technology, have a strong level of modern educational technology, and can master and use various modern educational technology teaching methods skillfully. However, due to lack of teaching experience, novice teachers lack interaction with students in the process of applying modern educational technology to primary school teaching, ignoring students' ability to accept new technical means and their mastery and absorption of classroom knowledge. Moreover, novice teachers who have just entered the front line of teaching don't know how to make rational use of their technological advantages when making courseware, and they are eager for success. The courseware they make is either not suitable for classroom teaching, or has too many content elements and lacks key points, which leads to the use of modern educational technology in the teaching process but fails to achieve the expected goal of improving teaching quality.

### **2.3 Students Rely Too Much on Electronic Products**

With the continuous development of electronic information technology, more and more learning softwares are born. Some of these softwares can learn knowledge, while others can search for difficult problems, which brings convenience to students' study and life, but also brings many troubles. Primary school students are still young, have not yet formed a complete moral system, and have poor self-control ability. They may search and copy the answers directly on the answer software of electronic products in order to save time, which goes against the original intention of doing the questions, blindly pursues the speed of doing the questions, and enjoys their success. Students' active thinking and active learning ability decline, which is not conducive to students' academic development. The popularity and use of electronic devices not only bring convenience to people's lives, but also bring inconvenience to people. Besides all kinds of learning software, there are also many game entertainment software in electronic devices. Pupils are at the age of fun, so it is difficult to resist the temptation of electronic devices, and students' digital learning ability is uneven.

### **3. Method of Integration of Modern Educational Technology and Primary School Teaching**

Affected by the development of Internet technology and mobile terminal equipment, the traditional social work and learning mode has undergone tremendous changes, and electronic information technology has far-reaching significance in promoting the efficiency improvement, mode change and business integration of social enterprises. At present, primary schools have also introduced media information technology one after another, seeking mode innovation and path exploration in educational concepts, teaching methods and teaching means. According to the requirements of curriculum and syllabus, primary school teachers will use multimedia courseware, Internet education platform and mobile Internet application to strengthen systematic theoretical training and practical guidance for students, breaking through the time and space constraints of the original classroom teaching mode. Major technological changes will inevitably lead to changes in teaching mode. With the development and popularization of modern educational technology, the drawbacks of traditional teaching gradually appear. How to effectively integrate modern educational technology into primary school teaching has become the focus of primary school education at present. The following is a discussion on the integration methods of modern educational technology and primary school teaching.

#### **3.1 Shorten the Distance between Textbooks and Reality**

Teachers bring students into the teaching content of teaching materials through modern educational technology, and shorten the realistic distance of teaching materials. Although the textbooks used in traditional teaching contain some pictures, because the knowledge of textbooks is static, it is difficult for students to understand and master teachers' one-way knowledge transfer. Teachers introduce modern educational technology into primary school teaching, which can visualize and concretize the knowledge in books, deepen students' understanding ability of knowledge and improve teaching quality. For example, when learning the text "clap your hands", teachers prepare pictures of animals such as peacocks, geese and eagles in the text on multimedia equipment, and play the audio of the text at the same time, showing animal pictures in turn according to the audio playing order, guiding students to read the text rhythmically following the audio. "You shoot one, I shoot one, and keep in mind that animals should be protected. You shoot two, I shoot two, peacock and golden pheasant are partners. You shoot three, ... ". Students can deepen their understanding of the article through the audio of the text, and understand the characteristics of various animals by watching animal pictures. The double experience of sight and hearing not only deepens their understanding of songs, bears, cats and other words in the text, but

also can distinguish animal species according to the characteristics of different animals and expand their knowledge.

### **3.2 Stimulate Students' Learning Enthusiasm**

Teachers enrich teaching contents and innovate teaching methods through modern educational technology to stimulate students' learning enthusiasm. Teachers make full use of the advantages of modern educational technology, present the contents of teaching materials in the form of sounds, words, images, etc., and seize students' attention, so as to naturally introduce topics and improve students' interest in learning classroom knowledge. For example, when learning the text “Little Tadpoles Looking for Mom”, teachers can play the animated video of “Little Tadpoles Looking for Mom” found on the Internet at the beginning of the class, first of all, to attract students' interest in learning the growth process of small tadpoles, so as to naturally start learning the textbook text. After the study, the teacher can divide the students into several groups, in which the students play the roles of tadpoles, carp, tortoise and frog mother in the text, and carry out scenario simulation according to the text content to deepen students' understanding of the text content. The best groups are selected among different groups, and the best individuals are selected in each group to stimulate students' sense of competition. After the play, the teacher put pictures of tadpoles in different growth stages on the multimedia equipment, instructed the students to sort the pictures according to the text content, and retelled the story of tadpoles looking for their mothers.

### **3.3 Solve the Key Points and Difficulties in Teaching**

Teachers rationally arrange teaching contents through modern educational technology, teach according to teaching objectives and teaching plans, and solve teaching emphases and difficulties. Primary school education is the initial stage of students' early education. In primary school teaching, some teaching contents are not easy for students to understand and master, which are generally the basic knowledge that students must master and often appear in examinations. Teachers should arrange teaching time and teaching forms reasonably according to students' specific mastery of knowledge, so as to help students master the key points and difficulties of teaching and improve classroom efficiency. For example, in primary school mathematics teaching, the addition, subtraction, multiplication and division of numbers is the focus of teaching. When teaching the addition and subtraction of numbers within 20, taking 8 plus 9 as an example, the numbers can be brought into specific situations. “The little white rabbit has 8 carrots and the little black rabbit has 9 carrots, so how many radishes do they have?” Simple numerical calculation is boring and inconvenient for students to enter the learning state. Inserting the cartoon of rabbit pulling radish into multimedia can not only attract students' interest in learning, but also deepen students' understanding of the addition and subtraction of numbers within 20.

### **3.4 Improve the Teaching Training Mode**

Teachers change the traditional teaching mode through modern educational technology. Traditional classroom teaching takes teachers as the main body, teachers unilaterally instill knowledge into students, lacking classroom interaction, and teaching is mainly based on blackboard, chalk, text materials and teaching AIDS, supplemented by workbooks and exercises after class. The teaching method is single, the teaching mode is boring, and it is easy to solidify students' problem-solving methods, while the application of modern educational technology can liberate students' thinking. Teachers use modern educational media such as slides, televisions, video display stands and multimedia computers to change the traditional teaching and training mode, change

questions, arrange targeted training for different students, and teach students in accordance with their aptitude.

#### 4. Summary

This paper explores the integration methods of modern educational technology and primary school teaching, and finds that there are still some problems in the process of integrating modern educational technology with primary school teaching, such as traditional teachers' lack of understanding of modern educational technology, novice teachers' lack of experience in modern educational technology and students' uneven digital learning ability. Suggestions are put forward for the effective integration of modern educational technology into primary school teaching from four aspects: shortening the distance between textbooks and reality, stimulating students' learning enthusiasm, solving the key points and difficulties in teaching, and improving teaching training mode. In primary school teaching, teachers use modern educational technology to vividly display the contents of teaching materials in front of students, and visualize and concretize the abstract knowledge through both visual and auditory experiences, so as to stimulate students' interest in learning and promote students' ability of independent thinking and learning. Modern educational technology is used to bring students into teaching materials, shorten the distance between students and teaching materials, strengthen students' understanding of teaching materials and master classroom knowledge, improve classroom teaching efficiency, and provide guarantee for students' primary education.

#### References

- [1] LI.HUANG, QIN.HUANG. *The Research on the Teaching Resource Database's Construction of "Modern Educational Technology" Course Teaching*[J]. *Applied Mechanics and Materials*,2013,2700(825):2842-2845.
- [2] MARTIN SKUTIL, MARTINA MANENOVA, ZUZANA GIECIOVA. *Interactive whiteboard as a didactic tool on the 1st level of primary school*[C]. //Recent Researches in Education.:WSEAS Press, 2011:105-110.
- [3] HAOYANG YU. *Solutions on Obstacles of Applying Educational Technologies in Chinese Primary and Middle School English Classrooms*[C]. //Proceedings of the 2019 International Conference on Education Science and Economic Development (ICESED 2019).Paris, France:Atlantis Press, 2020.
- [4] ZARANIS NICHOLAS. *The use of Information and Communication Technologies in the first grade of primary school for teaching rectangles based in Realistic Mathematics Education*[C]. //4th International conference on information, intelligence, systems and applications: IISA 2013, Piraeus, Greece, 10-12 July 2013.:Institute of Electrical and Electronic Engineers, 2013:327-332.
- [5] REIS, ROSA, ESCUDEIRO, PAULA. *Educational software to enhance English language teaching in primary school*[C]. //2011 International Conference on Information Technology Based Higher Education and Training.:IEEE, 2011:1-4.
- [6] MAIMUN AQSHA LUBIS, RAMLEE MUSTAPHA, ISMAIL SUARDI WEKKE, et al. *Educational Technology on Teaching and Learning Of Islamic Education in Brunei Darussalam*[C]. //Advanced Educational Technologies.:World Scientific and Engineering Academy and Society (WSEAS), 2008:402-410.