

# Research on the Strategies of Primary School Teachers' Information Technology Application Ability Under the Background of Education Informatization 2.0

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**Abstract:** In the context of Education Informatization 2.0, this paper uses Hanzhong City as an example to investigate and analyze the information technology application ability of elementary school teachers. It finds problems and proposes corresponding improvement strategies. It is hoped that it can be used as a reference for the improvement of information technology application ability of primary school teachers.

**Key words:** education informatization 2.0, primary school teachers, information technology application ability, promotion strategy

## 1. The Necessity of Paying Attention to Primary School Teachers' Information Technology Application Ability Under the Background of Education Informatization 2.0

The education informationization enters the 2.0 stage, has formed the information technology and the education teaching depth fusion idea. Primary school students have poor autonomous learning ability, and most of them need teachers' supervision. It is the general trend to make up for the deficiency of traditional teaching by using modern information technology. Teachers should use the educational information platform to analyze and improve the problems in the traditional classroom, establish the educational awareness of informatization, improve the application ability of information technology, and give full play to the advantages of informatization teaching.

#### 2. Analysis of Primary School Teachers' Information Technology Application Ability

In this study, Hanzhong City is taken as an example to conduct a systematic study on the information technology application ability of primary school teachers in Hanzhong City. The questionnaire was issued for half a month, with a total of 230 copies. The effective number of respondents was 208, and the effective rate was 90.4 %.

### 2.1 Teachers Have Certain Technical Literacy, But the Awareness of Technical Resources Application Is Weak

Approximately half of teachers use interactive whiteboard teaching, and very few use electronic schoolbags,

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touch-on machines and other media. This is a traditional instrumental thinking that teachers see information technology tools only as a tool to assist or even replace teaching.

### 2.2 Teachers Have Certain Planning and Preparation Capabilities, But the Design of Digital Education Resources Is Not Perfect

When using information technology to teach primary school students, teachers always use the same courseware as book knowledge, and the relevant knowledge is less expanded. The courseware resources are single, and the design of digital education resources is insufficient to support classroom teaching. In addition, 53.7% of teachers believe that the hardware equipment of the school should be improved so that teachers can apply information technology to teaching on this basis.

### 2.3 Teachers Have Certain Organizational Management Skills, But Information Technology Teaching Is Not Mature Enough

Some teachers cannot independently solve emergencies in the classroom. Pupils are eager to try computer equipment. As the information technology discipline, although the number of computers is more than the number of students in class, but there are several computers due to not timely processing failure, long time idle, will not be able to operate normally. The same is true of other subjects using information technology teaching.

### 2.4 Teachers Have Certain Evaluation and Diagnosis Methods, But the Ability of Information Technology Evaluation Is Limited

1.89 percent of teachers believe that the choice of evaluation tools is limited to resources provided by schools (e.g., student development registers, transcripts) and that teachers' ability to use information technology for evaluation is not high. In the face of new evaluation tools and evaluation software, some teachers do not understand its use, and it will be a bit difficult to operate, resulting in the evaluation results not very optimistic.

### 2.5 Teachers Have Certain Learning and Development Goals, But the Traditional Application of Information Tools

The courseware made by teachers is basically simple pictures and words. If there is no interaction between teachers and students, it is difficult to reflect the student-centered teaching concept. Such a classroom will inevitably lead to low teaching quality. This is due to the lack of teachers' own information literacy, lack of information knowledge and information awareness, and ignore the importance of the integration of subject curriculum content and information technology.

### 3. Strategies for Improving Primary School Teachers' Information Technology Application Ability Under the Background of Education Informatization 2.0

As educators, how to start from the dimension of information technology application ability standard, reasonably optimize and make up for teaching loopholes, and promote the improvement of primary school teachers' information technology ability on the basis of suitable teaching content is an urgent problem to be considered and solved.

#### 3.1 Application of Information Technology Resources to Improve Teachers' Technical Literacy

The school should start with the most basic teaching media used by teachers, hold the competition of information technology teaching, classify teachers' technology and give excellent teachers' honor certificates. In

the competition, teachers will have a certain understanding of their technical level, will also learn from excellent teachers, interest in information technology, imperceptibly improve their technical literacy.

#### 3.2 Using Internet Teaching Resources to Improve Teachers' Planning and Preparation Ability

First of all, improve the hardware equipment to ensure that teachers and students can effectively use in the classroom. Secondly, before teaching, teachers should analyze the learning characteristics of the teaching objects and select the teaching methods suitable for students. For some key and difficult teaching knowledge that are difficult to solve by traditional teaching methods, they should use Internet search and information technology to show them, so as to facilitate students' learning.

#### 3.3 Regular School-based Training to Improve Teachers' Organization and Management Skills

Schools should regularly carry out targeted school-based training of modern information technology according to the actual situation of the school and the specific requirements of primary school students' learning content. At the beginning of the training, teachers should learn online, and then experts and relevant technical personnel should be arranged for centralized training of teachers. Corresponding constraint mechanisms should also be formulated during training, including training objectives, evaluation system, reward and punishment methods.

### 3.4 Improving Teachers' Evaluation and Diagnosis Ability by Using Informationized Network Evaluation Mechanism

On the one hand, schools should regularly update and optimize teachers' network evaluation system. For example, electronic portfolio system, performance management system, etc. On the other hand, schools should pay more attention to teachers who are not proficient in such systems, help them and encourage teachers to actively practice. At the same time, teachers should not only pay attention to the result evaluation, but also pay attention to the process evaluation of students.

### 3.5 Establishing a Platform for Teachers' Learning and Communication to Realize Teachers' Learning and Development

Through the Internet to establish a teacher learning exchange platform, regular communication with information technology experts, listen to the advice of predecessors. In addition, the school can establish a teaching resource database on its website to encourage teachers to upload their excellent educational resources to the website and update them in time. The remaining teachers can independently enter the website for learning and continuously improve teachers' teaching ability.

#### 4. Summarizing

In short, in the era of educational informatization 2.0, educators should understand the nature of education from the thinking level to the action level, change the key to education, continuously improve their own information technology application ability, and realize the harmonious coexistence of knowledge rationality and technical rationality.

#### References

Shi Wang Qi (2018). "Teaching structure reform in the era of educational informatization 2.0", *Educational Informatization in China*, No. 22, pp. 6–9.

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Liu Geping, Yu Liang, Gong Chaohua and Wu Haiyan (2018). "Research on the elements and functions of 'Internet + education' from the perspective of educational informatization 2.0", *Research on e-Education*, Vol. 39, No. 9, pp. 37–42, 74.