

# Exploring the Integration of Primary School Mathematics and Multi-disciplinary under the Support of Information Technology

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**Abstract:** The new curriculum reform concept clearly states that primary school mathematics subjects should enable students to improve their ability to apply what they have learned, and play the role of the subject in educating people. Teachers should not only pay attention to the teaching of mathematical knowledge, but also pay attention to the connection between mathematical knowledge and other subjects, and with the continuous development of information technology, the teaching mode of each subject is constantly innovating. Mathematical knowledge itself has the characteristics of being boring and difficult to understand. With the help of information technology, it can effectively improve students' interest in learning and help students quickly master mathematical knowledge. Compared with the traditional teaching mode, it can give full play to the advantages of information technology and realize the knowledge and situation. combined with each other. The author of this paper elaborates on the specific strategies of how to integrate primary school mathematics with other subjects under the support of information technology from different perspectives, hoping to bring help to relevant teachers.

**Keywords:** Information technology; Primary school mathematics; Multidisciplinary integration

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Disciplinary integration is the main idea in the new curriculum reform. In the curriculum reform, it is emphasized that each discipline should establish a relationship and cannot exist independently, so that students can feel the overall appearance of knowledge. With the help of subject integration, a new knowledge system can be derived, and it is a booster to improve students' learning effect. Teachers should stand in the perspective of philosophy, feel the connection between mathematical knowledge and humanities, and be good at using various teaching resources in the classroom to enrich students' learning experience. It can be seen that to do a good job of subject integration requires the continuous efforts and continuous learning of teachers, so that results can be achieved in practice.

## 1. Positive significance of primary school mathematics and multidisciplinary integration under the support of information technology

The so-called subject integration refers to the integration of the connection between all subject knowledge from the perspective of student development, allowing students to explore knowledge and life experience, as well as the mutual promotion between this subject and other subjects. In this way, students can learn more comprehensively and diversely, and can effectively improve their knowledge reserve and extensive ability to analyze problems. The knowledge architecture constructed in the mind is also more systematic and comprehensive. In addition to teaching students the necessary support, the integration between disciplines can also play a role in educating students, exercise students' thinking, and cultivate students' sound personality. Information technology has many advantages, for example, it can intuitively show students mathematical knowledge such as pictures and videos. Or adding some musical elements to students can make students more relaxed physically and mentally and better accept knowledge. Compared with the boring learning form of traditional teaching mode, students will learn knowledge more easily, and the atmosphere of the whole classroom will become more relaxed and lively<sup>[1]</sup>.

## 2. The advantages of primary school mathematics and multidisciplinary integration under the support of information technology

### 2.1 Make knowledge more vivid and simple

The better integration of mathematical knowledge and information technology depends on teachers' correct and appropriate use of multimedia to improve students' interest in mathematics learning. With the help of multimedia technology, many difficult-to-understand mathematical knowledge can be simplified, allowing students to follow the guidance of multimedia to accept and understand knowledge step by step<sup>[2]</sup>.

### 2.2 Make knowledge full of literature and interest

Although there are a large number of calculation problems in mathematics knowledge, some mathematics and literature are also closely related. When encountering this kind of mathematics knowledge, teachers can improve students' understanding ability as the main purpose, make the language richer and more interesting, and let students Feel the novelty of the math classroom. For example, when learning the side view of graphics, teachers can use multimedia to show the surrounding mountains for students, and then use ancient poems to import "Lands and peaks are seen horizontally, and the distance is different." These two sentences can make students imagine The true face of Mount Lu, and then teachers use this introduction theme to stimulate students' desire to learn new knowledge.

### **3. Specific measures for the integration of primary school mathematics and multidisciplinary under the support of information technology**

#### **3.1 Integration of mathematics and information technology**

In the concept of quality education, it is clearly stated that teachers of various disciplines should not only focus on knowledge in the teaching process, but also improve students' core literacy, change students' learning methods, and improve learning efficiency. Practice has proved that by combining mathematical knowledge with information technology, students have more abundant resources for learning mathematics and more diverse methods. Many students can feel the fun of learning mathematical knowledge in different learning methods, and with the help of multimedia, teachers' Teaching has also become easier. The teaching level of teachers is also constantly improving<sup>[3]</sup>.

#### **3.2 Combining mathematical knowledge and language knowledge**

Mathematical knowledge can effectively cultivate students' thinking ability. Students should develop the habit of thinking about problems from multiple perspectives, so as to promote their comprehensive literacy. When teaching mathematics knowledge, teachers can use multimedia to show students how to think from multiple perspectives on different problems. , so that students can broaden their mathematical thinking.

#### **3.3 Combining with art**

Primary school students are lively, active and full of curiosity. They often cannot concentrate for a long time in class. Teachers can use information technology to draw out teaching content through pictures and texts, stimulate students' interest in learning mathematics, and guide students to observe and explore. In this way, the effect of classroom teaching can be improved.

#### **3.4 Combine with music**

Music can bring people a different emotional experience. In mathematics teaching, teachers can also skillfully integrate mathematics and music courses, which can make students feel the fun of mathematics, reduce the difficulty of mathematics learning, and improve students' self-confidence. For example, in the teaching of "counting and counting", because students have basically mastered the order of numbers, some students may not concentrate very well when they review again. At this time, teachers can use the music content to say: "The numbers in mathematics are also beating notes, and they all sing. Let's see what sounds 1, 2, 3...will make?" Hearing this, students can Have a strong interest in learning and continue to pay attention to the teacher's every move. Then teachers continue to use information technology to play digital songs for students, so that students can understand the relationship between numbers and notes, and I believe that students will be intoxicated in the ocean of music.

### **4. Suggestions on the integration of primary school mathematics and multidisciplinary under the support of information technology**

#### **4.1 Pay attention to tap the potential of students**

No matter how effective and beautiful the integration of subjects is, when using information technology for integration, teachers should not only pay attention to the design effect of courseware, but also pay attention to the language guidance of teachers in the classroom. It cannot be said that only using information technology can reduce teachers' work. On the contrary, teachers should make knowledge more thorough and tap students' potential, so that students' mathematical talents can be brought into play, and students can love mathematics more and love learning more.

#### **4.2 Pay attention to the proper combination**

Regardless of the integration of mathematics knowledge and any subject, it is to improve the classroom effect and improve the learning efficiency of students. Therefore, when teachers set the key points of mutual integration between subjects, they must be targeted and avoid excessive use of exquisite courseware or more music, which will not only improve learning efficiency, but also make students' thinking suffer. External things attract, when learning knowledge, can not concentrate, thus affecting the learning effect.

### **5. Summarize**

To sum up, as a primary school mathematics teacher, first of all, we should realize the importance of realizing multi-disciplinary integration with the help of information technology in the classroom. Secondly, teachers should also focus on how to achieve teaching goals and improve students' mathematical ability, so as to build a free and open classroom for students from the perspective of students, and truly cultivate a large number of mathematical talents for the country.

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