Original Research Article

Research on the Deep Integration of Information Technology and Primary School Mathematics Teaching

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Abstract: In the 21st century, with the development of information technology, the education sector has gradually integrated information technology with subject teaching to promote students' learning efficiency. The introduction of information technology into the classroom by primary school mathematics teachers can make abstract mathematics knowledge more tangible, thus enabling students to understand and master knowledge more quickly. Nowadays, information-based teaching has become an inevitable trend. In this paper, the deep integration of information technology and primary school mathematics teaching is studied in order to improve the level of primary school mathematics teaching.

Keywords: Information Technology; Primary School Mathematics; Teaching Integration

1. Introduction

Information technology, as a modern teaching tool with high efficiency, can encourage students to keep interest in knowledge all the time in the process of learning. At the same time, it can fully mobilize students' subjective initiative in learning, and has the function of cultivating students' innovative consciousness and exploring spirit. For teachers, information technology is a good teaching assistant, which can make classroom efficiency get twice the result with half the effort. Combining information technology with primary school mathematics teaching is not only the only way for education development, but also the ideal goal for scientific development. Primary school mathematics teachers should give full play to the advantages of information technology in teaching, so that students can gain more benefits in class.

2. Significance of introducing information technology into primary school mathematics classroom

teaching

As far as the development of education and teaching is concerned, in order to meet the needs of social development, the educational circles constantly update and reform the educational methods and means. With the development of information technology and social economy, many excellent teaching tools have emerged in the education sector. More and more educators introduce information technology into classroom teaching, and use colorful pictures and interesting dynamic effects to mobilize classroom atmosphere and enrich classroom content, so as to promote teaching quality. And information technology has lived up to expectations, meeting the needs of education development in the new era from multiple angles.

2.1 To stimulate students' interest in learning

Mathematics has always been an abstract and logical subject among all the subjects in primary education and teaching, and it is a little difficult for students to

learn. Some educators, who are good at using new teaching tools, intelligently use information technology to make students understand the abstract and logical knowledge content of primary school mathematics more clearly and deeply by means of picture display and dynamic effect evolution. The rich colors and simulated sound effects in information technology can attract students' senses, and then guide them to enter the learning state as soon as possible, and they are willing to immerse themselves in such an interesting learning environment. Therefore, students' interest in learning is aroused, and teachers are more labor-saving in class.

In the traditional classroom, only a piece of chalk and a blackboard are used to carry out teaching activities. In the teaching process, teachers often draw their own pictures, and copy their own questions and so on, while students will spend some time waiting. The effective time of a class is very limited, and the time of copying questions and drawing pictures delays the teaching efficiency even more. During this time, not only teachers need to work harder, but also students will easily be distracted. Therefore, compared with traditional teaching methods, using information technology to teach is more beneficial to both teachers and students.

2.2 To optimize classroom teaching content

In the process of primary school mathematics teaching activities, teachers can show students more mathematics teaching forms with the help of information technology, and enrich classroom content and help teaching efficiency through various forms of expression. With the help of information technology demonstration, students will be more intuitive about concrete and visualized things, and will be able to connect what they have learned with real life more naturally, thus making up for some shortcomings in the traditional teaching mode. For some difficult or difficult knowledge content, information technology can completely assist teachers and make it easier to understand. Teachers will get twice the result with half the effort.

In traditional teaching, teachers are particularly laborious in explaining graphics knowledge. However, with the assistant of information technology, teachers can explain graphics problems to students more intuitively, emphasize the key points and difficulties in knowledge content, and use the saved classroom time to expand more knowledge and enrich learning resources for students.

2.3 To promote the increase of interactivity

In the traditional teaching mode, the classroom is a relatively static existence. In the classroom, teachers usually keep students in a state of "listening to lectures". When necessary, they ask individual students to stand up and answer questions to test the classroom effect and promote the classroom progress. However, in this way, teachers often find some students habitually, but most students will not be taken care of. Therefore, many students do not participate in the in-depth promotion of classroom knowledge, but teachers do not realize it. With the blessing of information technology, teachers can use such interaction to create a relatively active learning atmosphere. In such a learning environment, students can increase their interaction with teachers and classmates, and then find their own problems in learning. They can cooperate with classmates to learn, and learn from each other.

3. The organic integration of primary school mathematics teaching and information technology

According to the previous discussion, we can know that the integration of information technology and subject teaching is of great benefit to the development of education. As an important tool subject, primary school mathematics has always been paid great attention to, and new teaching methods should be actively integrated to promote students' learning efficiency.

3.1 The organic integration of teaching material content and information technology

Primary school is the enlightenment stage for students to learn mathematics. In this period, because students are generally younger and primary schools are compulsory education, the teaching contents in mathematics classes often come from the syllabus or the textbooks uniformly selected by schools, and the difficulty is acceptable to the average level of primary school students' learning ability. But because of this, the teaching content of primary school mathematics will have some limitations. At present, the teaching content of primary school mathematics is difficult to keep up with the pace

of social development, and can hardly reflect the development characteristics of the present era. Therefore, primary school mathematics teachers should actively use the auxiliary role of modern information technology, organically integrate teaching content with it, expand teaching materials in life, break the limitations in mathematics textbooks, and narrow the distance between primary school students and mathematics. In this way, not only can modern science and technology play a role in the field of education, but also the classroom teaching content of primary school mathematics can be enriched, thus arousing students' learning enthusiasm and eliminating students' resistance to mathematics.

In many students' minds, mathematics is a rather boring subject, and some of them are "too highbrow to be popular", but the rich living mathematics materials will make students realize the delicate connection between mathematics and life. Primary school teachers need to pay more attention to collecting living materials and using information technology teaching methods to increase students' interest in learning mathematics knowledge and realize the effectiveness of teaching.

For example, when teachers explain "divisor" and "dividend", they can play a short video of "get-together" to divide fruits, so that everyone can feel that mathematics is closely related to life in a happy atmosphere. When we share fruits with our classmates, we actually use division. When teachers use information technology to give examples of division in life, students will understand the concepts of "divisor" and "dividend" more thoroughly, and then they will be easier to master the basic knowledge of division and lay a good foundation for future study.

3.2 The organic integration of teaching forms and information technology

In the traditional teaching method, it is normal to add a piece of chalk to a blackboard. However, this teaching method is easy to affect students' learning efficiency and students tend to be distracted while waiting for teachers to write blackboard writing. At the same time, chalk teaching will have a certain impact on teachers' lung health. Moreover, the blackboard writing on the blackboard is not conducive to repeated use, and teachers have to transcribe the blackboard writing every time they give a lecture, which causes teachers to waste a lot of energy here. With the development of the times, more and more campuses have popularized multimedia equipment, so teachers can prepare lessons in advance and prepare courseware blackboard writing before class. The new courseware blackboard writing is different from the traditional blackboard writing. In contrast, the new courseware blackboard writing is richer in color and more changeable in style. At the same time, various pictures, animation, music and other elements can be added to make the classroom more interesting and vivid, thus arousing students' interest in learning mathematics knowledge. In addition, the use of information technology to project blackboard writing can effectively reduce the generation of chalk dust, which is more beneficial to the health of teachers and students in the front row. Intelligent screen projection can also save the time of blackboard writing, so that teachers can demonstrate more interesting pictures or videos related to mathematics knowledge for students in the saved time, and enrich the classroom content.

Information technology can assist teachers to carry out various interesting activities and transfer the teaching subject to students. In the process of participating in interesting activities, students can not only get physical and mental pleasure, but also gain mathematical knowledge. In this process, students' learning enthusiasm is stronger and their learning efficiency will be improved. Teachers can add some extended knowledge when designing teaching programs, so that students can be further promoted in richer learning materials.

3.3 The organic integration of teaching methods and information technology

The traditional teaching method of "the teacher dominates the classroom" has long been unable to meet the development requirements of the new generation of young children's education. In the past, the teaching methods were single and boring, so it was difficult for students to arouse their initiative in the "one-word" environment. In addition, in the traditional classroom, students lack the process of active exploration, and the communication with classmates is limited. However, the information technology teaching method can make up for the above shortcomings. With the help of information technology, the classroom will become more open and autonomous, and students can also increase cooperation.

For example, when teachers explain the "scale and size comparison" course, they can show students dynamic courseware with the help of information technology in class according to the actual situation of students, so that students can be interested in the course content under the sensory stimulation of sound effects and pictures. After that, the teacher plays short videos of relatively large size to the students through information technology. In this process, the teacher can select nodes, interrupt the video playing, set questions, and let the students discuss in small groups to discuss the answers that have not yet been revealed in the short videos. In the process of discussion, students will play their own initiative to explore and think, find the answer to the question in the form of cooperation, and finally the primary school mathematics teacher will reveal the correct answer, and comment on the ideas of each group, so that students can know where they are right, where they are wrong, and how to correct them in the future. This kind of classroom breaks through the closure and silence of "the teacher dominates the classroom", and makes the classroom atmosphere active. The active personality of primary school students will encourage them to take the initiative to participate in learning activities, and teachers' education and teaching work will get twice the result with half the effort.

4. Conclusion

In a word, the organic integration of information technology and primary school mathematics classroom will add more vitality to the primary school mathematics classroom, make students more interested in mathematics knowledge, and improve students' learning efficiency. At the same time, the introduction of information technology will enrich the classroom content, improve the quality and efficiency of mathematics teaching, and contribute to the development of mathematics teaching.

References

1. Yang G. Research on the development direction of primary school physical education teaching mode under the background of informatization (in Chinese). Primary School Teaching Research 2019; (7): 45–46.
2. Li L. The application of informatization teaching in the physical education of rural primary school—Taking Lanzhou three counties as an example [Master's thesis]. Lanzhou: Northwest Normal University 2018.
3. Zhang X. Research on the application of information technology in primary school mathematics teaching (in Chinese). Renwen Zhi You 2019; (2): 232.