The problems and optimization strategies of primary education informatization development

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Abstract: *Education informatization is the development trend of education in the new era, which promotes the development of primary education in China. However, in primary school teaching, teachers do not apply information technology to daily teaching, which leads to the information knowledge accepted by students is inconsistent with actual life. Therefore, in order to better adapt to the development requirements of the information age, teachers should update their own concepts, apply information technology to daily teaching, and cultivate students' ability to solve problems with information technology. On this basis, we will continue to improve students' understanding and understanding of information technology, and then improve students' learning interest and learning efficiency.*

Keywords: *Primary School Education; Education informatization; Educational development*

1. Introduction

With the development of modern science and technology, the combination of information technology and teaching field is more closely, which has become the most concerned hot topic in the field of contemporary education [1]. The application of information technology in primary education can significantly improve the comprehensive literacy of primary school teachers and pupils, so that primary school teachers can better complete their teaching work [2-3]. However, due to the influence of traditional education concept and teaching mode, there are many problems in primary school informatization construction, such as emphasizing construction over application, lack of hardware support, etc., which greatly limit the improvement of informatization development level. Therefore, in order to solve the above problems, this paper studies the development problems and optimization strategies of primary education informatization.

2. Significance and value of primary education informatization

In recent years, with China's increasing investment in the field of education, the informatization level of primary education has been rapidly improved. At the same time, the government has also formulated relevant policies to strongly support and encourage teachers to carry out training in information technology. It can be seen that the informatization of primary education is an inevitable trend of the development of national education policies and an inevitable requirement of the progress of the times. In this context, primary school teaching methods have been further improved and innovated. The combination of information technology and primary education can not only optimize the teaching mode, but also realize the sharing of teaching resources. Therefore, in the process of promoting the development of information technology in primary education, we need to effectively change the traditional and backward teaching concepts and teaching models, increase the investment in modern information technology and actively explore efficient and feasible information technology application methods to improve the quality and efficiency of education.

After the application of modern information technology in primary education, it can give full play to its own advantages and characteristics. At the same time, it can concretize and visualize abstract knowledge. Create a new learning environment and learning atmosphere for primary school students; it is also helpful for students to effectively absorb, understand and master new knowledge. Primary school students are in the stage of thinking development, and information can visualize abstract concepts, simplify complex problems, and help students establish a complete knowledge system. Therefore, information technology can help students better understand and master the relevant

knowledge content.

The primary school teaching stage is an important period to cultivate the comprehensive ability of primary school students. Therefore, teachers should take this opportunity to continuously improve the traditional teaching mode and teaching methods. However, in current practice, most teachers still use traditional teaching methods or blackboard writing to carry out classroom teaching. Such teaching method is not only conducive to improving classroom efficiency, helping students master knowledge content, but also increasing the burden of teachers. When assisted by information technology, primary school students can actively participate in the classroom, which can not only deepen students' understanding and mastery of classroom content, but also enable teachers to better teach students according to their aptitude to improve students' comprehensive ability; In addition, it can also timely understand the learning situation of students and adjust and optimize the teaching methods accordingly. It can be seen that information technology is of great significance and value in primary education.

3. Specific methods of primary education informatization

The application of information technology in primary education makes teaching more efficient. Through information technology, primary school teachers can make classroom teaching more interesting and improve teaching quality. For example, when teachers are learning the chapter of "reading", if they teach students in the traditional teaching method, it will make students feel boring. If they use information technology to assist teaching, they can effectively improve teaching efficiency. For example, when teachers learn the chapter "Spelling English Words", it will be boring and inefficient to teach students through traditional methods.With the help of information technology, students are more interested in learning and better understand and remember words. Therefore, the development path of primary education informatization should be developed on the premise of practical application. In order to make primary education informatization more advantageous and efficient, we must take the following measures:

3.1. Make reasonable planning for the construction of elementary school education information infrastructure

In primary school teaching, teachers should use information technology to enrich the classroom and improve students' interest in learning. In the teaching process, teachers can use multimedia technology to display the pictures, words, videos, etc. in the textbooks, which can stimulate students' enthusiasm and interest in learning. We know that the construction of primary education information infrastructure is a long-term work. It involves multiple departments and regions. In order to make the informatization of primary education develop better, we must do a good job in relevant planning and top-level design. For example, for some economically underdeveloped areas, we can use some local characteristic resources to provide assistance for the informatization of primary education, so that it has more advantages in the development process; For some regions with superior economic conditions, foreign advanced technology and equipment can be appropriately introduced to make them more advantageous in the process of development; Relevant resources and technologies can also be used to provide training and communication opportunities for teachers.In the planning process, we must fully consider the actual local conditions, rather than blindly carry out relevant construction work. In addition, we should draw up a long-term and detailed development plan and implement it strictly. In the planning process should be the primary education information construction work and the overall development of the school together. Only in this way can we ensure the integration of primary education informationization and school development.

For example, when learning the lesson "Stability of Triangles", the teacher can divide the students into groups and let them explore the stability of triangles. First of all, teachers should explain to students why triangles are widely used in life. Secondly, let students show the triangle stable structure diagram designed by themselves through multimedia, let students feel the difference between their own design structure and others' design structure, so that students can better understand and master knowledge. Finally, the teacher can arrange a small teacher for each group to help students solve problems. This not only improves students' enthusiasm and initiative in learning, but also improves learning efficiency.

3.2. Strengthen the construction of education informatization talent team and establish a good education informatization working mechanism

For primary education, the construction of teachers is particularly important, so schools should strengthen the training and management of teachers. First of all, schools should reasonably plan the development direction and specific plans of information technology, so as to provide necessary financial support for teachers and constantly improve the level of teachers' information technology. We should cultivate and introduce high quality education information talents, improve the professional quality of teachers. In order to better carry out informationization work, schools should continuously increase the capital investment in teacher training, improve teachers' comprehensive ability and information literacy, so that teachers can better carry out educational informationization teaching activities. At the same time, the school should also establish an incentive mechanism, so that teachers can contribute their own strength for the school to better carry out the information education work.

Secondly, schools should also provide targeted training for teachers at different levels and with different educational backgrounds. For example, primary school teachers can carry out training from the application ability of information technology, basic knowledge and skills of information technology, multimedia courseware production and other aspects; Middle school teachers can carry out training from the aspects of learning network platform operation specifications, learning website management regulations, etc; Universities and graduate students can carry out training from university curriculum design and practical operation, university micro-class production and other aspects. Schools should strengthen the management of teachers. For teachers engaged in education informatization, they need to have rich teaching experience and practical ability.Therefore, schools should provide teachers with training and learning opportunities so that they can acquire knowledge from practice and apply it to daily teaching. Finally, schools should take the development of informationization as an opportunity to actively hire excellent informationized education experts and scholars to provide suggestions for the development of primary education. Therefore, schools can actively organize and carry out campus informatization construction and information technology teaching and discussion activities, in order to promote the continuous improvement of information technology application level. In addition, it is necessary to strengthen the training and guidance of teachers' practical ability and innovative ability.

3.3. Student-centered, teaching activities as the carrier, give full play to the advantages of information technology in primary school teaching

The application of information technology in primary school education should be student-centered and take teaching activities as the carrier to give full play to the advantages of information technology in primary school teaching. First of all, information technology can help teachers solve the key and difficult points of teaching and facilitate teachers' interpretation of teaching content. Secondly, information technology can be used to make abstract and difficult knowledge vivid and interesting. For example, when learning the chapter of "botany", teachers can use multimedia to play some pictures or videos with strong visual effects and shock, so that students can intuitively feel the colorful plant world. Finally, teachers use information technology to create a virtual laboratory for students to observe and study plants in the laboratory. For example, when learning the chapter "Water", teachers can play some videos or pictures about water first, and then play some interesting experiments or games through multimedia.

3.4. Optimize classroom design based on pupils' cognitive characteristics

In order to realize the promotion of information literacy, it is necessary to improve students' application ability and knowledge level in information technology. In the process of students' learning, teachers should guide students to explore independently and learn cooperatively, which can avoid students from relying too much on teachers' explanation, and thus help students to better improve their information literacy. On this basis, teachers should actively organize some student-oriented activities, and carry out regular assessment and evaluation. For example, organize students to carry out activities such as "information technology practice" and "Network security guard" to help students establish information security awareness and improve their application ability of information technology through practical actions.

The design of traditional classroom teaching mode is based on the basic assumptions of teachers, students and textbooks, and students are passive recipients. This traditional teaching mode is mainly reflected in the teaching materials taught by teachers, and the knowledge learned by students comes

from teachers. This teaching mode can enable teachers to fully understand students' knowledge level and ability level, and formulate corresponding teaching objectives according to their knowledge level and ability level, which determines that their classroom design is also teacher-centered. However, the application of information technology in classroom teaching can make students become active and targeted learners, and at the same time can stimulate students' interest and enthusiasm in learning. Therefore, we should actively use information technology to promote the transformation of teachers' role from "teaching textbooks" to "teaching with textbooks" in the traditional sense; Promote students to change from passive receivers to active learners and inquiry activists; Make students change from knowledge memory to thinking discoverer and problem solver.

3.5. Strengthen information construction, enhance teachers' information literacy, and clarify information teaching objectives

The development of primary education informatization needs the joint efforts of schools and teachers. Schools should strengthen the cultivation of teachers' awareness of education informatization, and also strengthen the training of teachers' educational technology, so that they can realize the importance of education informatization in improving teaching quality and improving students' comprehensive literacy. At the same time, the school should train teachers in various ways so that they can master rich information technology knowledge and learn to use information technology to present teaching content to students in a more intuitive and vivid way. In addition, the school should strengthen the investment in information construction funds to ensure that each classroom is equipped with multimedia equipment and teaching software and various hardware facilities.At the same time, we should improve the construction of teaching staff and increase its proportion in information construction. In addition, teachers should also strengthen their own knowledge reserves and improve their educational literacy by reading relevant books and watching teaching videos. In addition, teachers should also use multimedia equipment to show students a variety of resources and content in the teaching process, so that students can be interested in learning consciously.

In primary education, teachers are the guide of students and the guide of students on the way to study. Only teachers have their own excellent skills, in order to cultivate high quality students. Therefore, in order to cultivate high quality primary school students, teachers should have high information literacy. First of all, in daily teaching, teachers should master information knowledge and technology methods; Secondly, it should have a rich and wide range of knowledge: information technology content, computer applications, network resources, multimedia courseware design; Finally, relevant policies, regulations and norms should be mastered. Only by constantly improving themselves can teachers effectively apply information technology to daily teaching.

When teachers lead students to learn, they should ensure that their explanations are clear and consistent with the use in real life. In addition, more students should be organized to participate in the competitions organized by the school, and the results of the competitions should be timely published in the class group for everyone to learn from. When carrying out information-based teaching, teachers should clarify the objectives of information-based teaching and students' learning objectives, such as cultivating students' ability to use information technology to solve life problems. First of all, teachers should use information technology to introduce some commonly used APP software to students. In class, teachers can group students and guide students to operate independently. In this process, teachers should pay attention to protecting students' privacy.Secondly, teachers can contact with parents, the situation of children's learning timely feedback to parents. Parents can also check their children's learning situation through mobile APP to know their children's learning environment at home. Finally, they can communicate with their children and learn about their school and family conditions [2]. Through the above methods to clarify the information teaching objectives can better make information technology into the teaching to maintain the normal progress of daily teaching activities.

To sum up, there are many problems and challenges in the development of primary education informatization in the new era. In order to better promote the development of primary education in China, we should also actively change traditional concepts and thinking patterns. On this basis, the teaching methods and strategies are constantly updated to promote primary school teachers to change their role orientation, apply information technology to daily teaching, help students better grasp the learning content and knowledge, and improve their comprehensive quality.

4. Conclusion

With the continuous development of information technology in primary education, teachers should update their own ideas, apply information technology to daily teaching, and constantly improve students' learning interest and efficiency. Primary school is a key period for students to cultivate their interest in learning and improve their comprehensive quality. Education informationization provides students with a learning platform and convenient conditions, which can cultivate students' autonomous learning ability and lifelong learning awareness. But there are still many problems and deficiencies to be solved in practical teaching. For example, teachers lack information technology knowledge, which makes it difficult for teachers to explain knowledge points in textbooks to students; Teachers cannot provide a good information technology environment; No good information technology platform, etc.For this reason, the author believes that teachers should strengthen their own information teaching ability and information literacy ability. At the same time, we should constantly improve our level of using information technology in teaching design in the classroom to provide students with a better teaching environment and platform. We should also actively introduce network resources and other multimedia teaching equipment to better serve the classroom and students.

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