

Application of New Media Technology in the Information Teaching of Preschool Education

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Abstract: Educational informatization is an inevitable trend in the development of education. Preschool education information is an important part of education information. In recent years, the national and local governments have shown great attention to the informatization of preschool education, formulating various policies to guide and promote the development of preschool education informatization; all regions have the courage to explore in the process of practicing preschool education informatization and have achieved success certain experience. At present, preschool education informatization has gradually become a focus of attention and focus in the education field. This article aims to study the application of new media technology in pre-school education informatization teaching. Based on the analysis of the characteristics of new media, the advantages of new media technology in pre-school education and the strategies to improve the efficiency of pre-school education informatization application, the questionnaire survey method and statistical analysis method randomly selects kindergarten teachers in S city to do related surveys. The survey results show that the city's kindergarten teachers recognize the positive role of information technology in the teaching process in many ways, and can accept information to assist children in teaching. But there are also areas that need to be improved and improved. Among them, teachers' understanding of information-based teaching is not deep, and the further integration of teaching and information technology needs to be strengthened.

1. Introduction

The rapid development of new media technology has had a profound impact on politics, economy, military, science, education and other fields [1, 2]. At present, in the context of the globalization of educational information technology, countries all over the world have regarded "education informatization and modernization" as one of the key points and contents of education reform in the process of accelerating the promotion of education reform. Our country also attaches great importance to education. Informatization construction, and clarified the development direction of "informatization driving education modernization and realizing the leap-forward development of basic education" [3, 4]. Under such a general background, preschool education has become an important foundation period for school education and lifelong education. In the wave of informatization, you cannot stay out of the situation. The informatization of preschool education has gradually become an inevitable trend in the development of preschool education[5, 6].

New media technology is not just a teaching tool, more often it should be embedded in the content and process of teaching. The research and application of information technology are more carried out in the early stage, using the characteristics and advantages of information technology to create a good educational environment process for young people and children [7, 8]. At present, our country's ongoing basic education information technology application construction work has been widely recognized and highly valued for basic education and social work. Although preschool education is an important part of basic education, it is generally considered to be a weak link, and it is more worthy of our attention [9, 10].

Based on the analysis of the characteristics of new media, the advantages of new media

technology in preschool education and the strategies to improve the efficiency of preschool education informatization application, this paper randomly selects kindergarten teachers in S city to do related surveys through questionnaire survey and statistical analysis. The survey results show that the city's kindergarten teachers recognize the positive role of information technology in the teaching process in many ways, and can accept information to assist children in teaching. But there are also areas that need to be improved and improved. Among them, teachers' understanding of information-based teaching is not deep, and the further integration of teaching and information technology needs to be strengthened.

2. Research on the Application of New Media Technology in Preschool Education Informatization Teaching

2.1 Research Methods

(1) Questionnaire survey method

This article uses questionnaire surveys, interviews and other forms of survey methods, taking a kindergarten in S city as the research object, obtaining actual surveys of the application of teaching informatization in a kindergarten in S city, and conducting questionnaire surveys and detailed interviews with kindergarten teachers and management staff. Obtain first-hand detailed information, collect teachers' views on the application of information technology, and related suggestions and opinions.

(2) Statistical analysis

Use data processing software to screen and classify the collected data, further analyze the collected data, intuitively and effectively reflect the problems that occurred in the interview, and summarize and analyze all aspects of the application of preschool teaching information.

2.2 Features of New Media

(1) Multimedia

Multimedia "means multimedia that represents digital media information, and multiple media collaboratively represent content information, which can be represented by media such as text and audio, or can be represented by media such as images, graphics, videos, and animations." PowerPoint, Word, Flash, etc. that are frequently used by the public are all digital multimedia applications [11-12].

(2) Integration

Digital media is a synthesis of various expression media in a variety of different forms of expression, collectively expressing a certain content, and can concentrate and control the recipients' various expressions of the media according to the needs of communication, so as to be more conducive to obtaining Better communication effect.

2.3 Application Advantages of New Media Technology in Preschool Education

(1) Interactivity and fun

The reason why new media technology can improve the interactivity and interest of teaching is mainly reflected in its profound impact on children's vision and hearing. New media technology can attract children through intuitive images such as pictures, videos, and animations played on the display screen, and enhance children's interest in teaching content by stimulating children's vision. From the auditory point of view, new media technology can play the role of creating atmosphere, cultivating sentiments, and controlling emotions. Combined with visual images, it can also achieve better teaching effects. For example, in the language activity "Tadpoles Becoming Frogs", you can first play the pictures and animations of tadpoles changing to frogs to guide children to recognize tadpoles and frogs, and then play the sounds of frogs so that children can recognize the sounds of frogs; and then cooperate with the children's song "Little Tadpoles, Black Sliding, swinging tails, stretching thin legs, swimming around without stopping"; when the nursery rhyme is over, children can stretch their hands forward, squat forward, jump, and then make a frog call to complete the

teaching task.

(2) Convenience and operability

From the perspective of teachers, new media technology has stronger convenience and operability. In traditional subject teaching, teaching preparation includes three aspects: material preparation, material matching, and environment creation. The material and material preparation process occupies most of the teacher's time, and if the preparation is not sufficient, it will directly affect the teaching effect. And through the application of multimedia technology in new media technology, accompanied by sound, interspersed story explanation, repeated combination and courseware preservation, greatly enhanced the convenience and operability of teaching.

(3) Circulation and learning

From an educational point of view, new media technology has stronger circulation and learning. With the help of new media technology, the kindergarten is no longer an isolated teaching place, and the teaching content of the kindergarten is no longer fixed and single. Through new media technology, teachers can understand and master the development of kindergarten education in the province, the country and the world, and the teaching content and models can also learn from each other and learn from each other. The circulation of new media technology promotes communication and learning between teachers and teachers and between schools and provides a platform and guidance for the better development of kindergarten education and the cultivation of children's comprehensive quality.

2.4 Strategies to Improve the Efficiency of Preschool Education Informatization Application

(1) Continuously optimize and update traditional teaching methods to deepen the understanding and application of informatization.

Traditional teaching methods were produced under the background of industrial society and have been used in teaching for a long time, forming the inertia of teachers' teaching. However, in an information society, the way of preschool teaching must meet the needs of modern development. Due to the challenges brought by the popularization of information technology to traditional teaching methods, our teachers continue to optimize their own teaching processes and methods on the basis of inheriting and retaining traditional classroom teaching concepts. Efforts should be made to integrate information technology with traditional teaching media, instead of blindly denying or repelling the role of traditional teaching media or the one-sided and extreme use of information technology.

(2) Increase the construction and maintenance of basic hardware facilities

The basic supporting facilities of early childhood education informatization are the foundation and premise for the realization of the requirements of early childhood education informatization, as well as the foundation and premise for training and improving the informatization literacy of preschool teachers in small classes. At present, our country's preschool education has been widely ignored by the society and its parents. Since our country's preschool education is not all within the scope of compulsory education, our country's preschool education and curriculum teaching informatization have always been marginalized. However, if the development of informatization wants to achieve long-term stable development, it needs a group of professional and technical personnel to guide and maintain. Therefore, in order to effectively guarantee the development of kindergarten informatization, increasing support for capital investment is the basic development motivation.

(3) Establish a professional and rich teaching resource library.

An important factor that hinders our kindergarten teachers from using modern new media technology to teach is the insufficient information education resources. If there is no matching information education resources, there will be no good information technology infrastructure, play a role in the actual information teaching and management. In recent years, the number of early childhood education software is relatively small, and there are not many high-quality software. Therefore, if our teachers want to master the skills of informatization in early childhood teaching, they must combine the actual situation of our children and the concept of early childhood education.

Produce high-quality and feasible information-based teaching content. In addition, there is still a big gap in the degree of professionalization and level of information-based education resources compared with developed countries, and there are still many places and spaces that can be improved. The current information-based resources cannot meet the teaching and scientific research needs of teachers in front-line schools. There is also a big gap in the investment and use of software development compared with developed countries such as the United States. So that every child can equitably obtain the corresponding high-quality teaching content, so providing rich teaching resources and self-learning game software for children can further promote the equal development of preschool education.

Judging from the current survey results, the resources of kindergarten education informatization mainly include courseware production material library, teacher's space blog, special learning website and online education resource library. However, due to the psychological characteristics of these children, games have become the most suitable way of learning for them. Games are not only a carrier for teachers to guide children's existence, living habits and learning to learn, but also the most suitable carrier for developing contextual and interactive teaching software. The curriculum and teaching resources of preschool teaching should add interesting game content to the curriculum, and introduce high-quality preschool game software, which can better improve the learning effect of children. This puts forward higher requirements for the construction of children's teaching resources. At present, there are relatively few learning resources specially provided for children.

(4) Try to combine theory and practice in teacher training

In the end, the level of teaching effect is mainly determined by the teacher. Not only must we pay attention to the mastery of students and teachers from the technical level, but also enable students to clearly understand the relationship between new scientific media technology and education classrooms. Regardless of whether we are the management of the administrative department of higher education or information technology workers, we must implement information technology training in place, so that our front-line teaching workers can also clearly understand that their professional knowledge and technology are in reality. In the training of teaching, we especially need to pay attention to that teachers use game technology to bring children's information technology to teaching, so that we can truly make teachers and children's information technology become children's learning. The part of the environment and the environment becomes an organic part of children's learning and participation in games, so that we can truly realize the organic integration of children's information and knowledge, and finally achieve the organic combination of information technology and kindergarten education courses, assisting teachers to effectively tap high-quality teaching Resources.

3. Experiment

3.1 Research Purpose

Based on the understanding and research on the application of basic education informatization in our country, this paper selects a kindergarten in S city to investigate the current situation of the application of preschool teaching information technology. Comprehensive analysis of the actual situation of preschool teaching informatization through a variety of research methods, focusing on the relevant effects of preschool teaching informatization applications, and related solutions and methods, to provide theoretical and practical basis for the promotion of preschool teaching informatization in S City. Promote the construction of preschool education informatization in S City, and further raise the research results to an operational level within the scope of possible, so as to provide scientific reference for the application of preschool education informatization in other regions.

3.2 Design of the Questionnaire

The survey randomly selected 60 teachers from City S, and recovered 57 questionnaires, with a recovery rate of 95%. Among the 57 teachers surveyed, 3 were male teachers, accounting for 5.3%;

54 were female teachers, accounting for 94.7%. You can see the kindergarten teachers. This situation is consistent with the actual situation of kindergarten teachers. Therefore, the survey data has a certain degree of credibility. Teachers' grades are basically evenly distributed in large, middle and small classes. Avoid the deviation of the sample information technology application due to the difference of the class.

In the survey, kindergarten teachers basically have a bachelor's degree, which shows that the level of preschool education teachers is higher. Among teachers, 59.6% have a bachelor's degree and 29.8% have a junior college degree, which shows that pre-school teacher education has been significantly improved. The teaching age of teachers is concentrated in 5 to 15 years, and the majority are middle-aged teachers. Although the level of teachers' educational background is not significantly related to teachers' teaching ability and information literacy, there is still a certain gap between teachers with high academic qualifications and teachers with low academic qualifications in the understanding and application of teaching theory and teaching technology. In terms of the time that teachers have been exposed to computers, most teachers are more than 4 years old, indicating that teachers are already familiar with the environment of teaching information.

3.3 Reliability Test of the Questionnaire

In order to test the reliability and stability of the questionnaire, the variance of the questionnaire results was first calculated, and then the reliability of the returned questionnaire was tested by the method of "half-half reliability" test. Using formula (1) to calculate the reliability coefficient, the correlation coefficient of the questionnaire is $r=0.883$. According to the theories and methods of modern scientific research, when the reliability of a test reaches 0.80 or more, it can be regarded as a test with higher reliability. The test results confirm that the questionnaire is reliable.

$$S^2 = \frac{(M-x_1)^2 + (M-x_2)^2 + (M-x_3)^2 + \dots + (M-x_n)^2}{n} \quad (1)$$

$$r = 1 - \frac{S^2(1 - r_1)}{S_n^2} \quad (2)$$

$$r = \frac{2r_{ban}}{1+r_{ban}} \quad (3)$$

4. Discussion

4.1 The Primary Level of New Media Technology Application

As a teaching aid. At the elementary level, information technology methods help teachers conduct demonstrative lectures, make use of multimedia functions, fully mobilize children's sensory channels, and allow children to receive teaching information to the greatest extent. The use of informatization teaching time per day by preschool teachers is shown in Table 1:

Table 1. Use informational teaching time

	Teachers
Less than 1 hour	11.70%
One to two hours	27.90%
Two to four hours	49.80%
More than four hours	10.60%

It can be seen from Figure 1 that from the time of using informatization teaching in one day, 10.6% of the time is more than 4 hours, half of the time is 2 to 4 hours, 27.9% for one to two hours, and 11.7 for less than one hour. It shows that teachers can use information technology. Teachers use information technology mainly for playing video materials, displaying teaching content and communicating with parents after class.

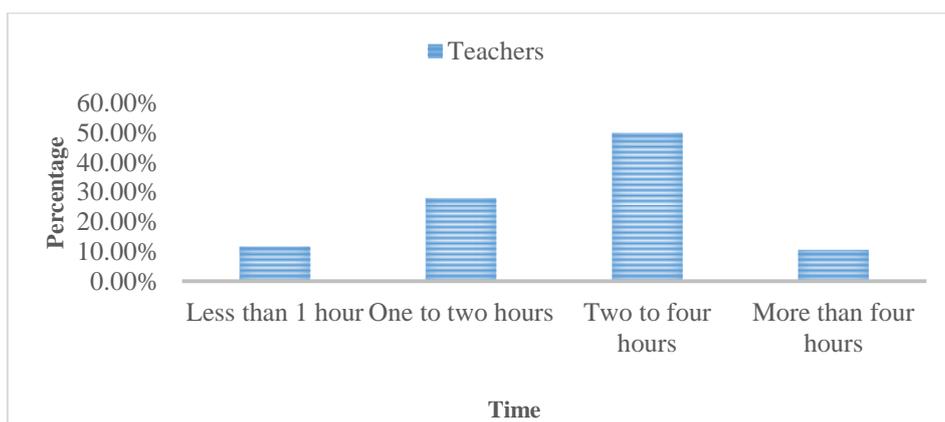


Figure 1. Use informational teaching time

4.2 Advanced Level of New Media Technology Level

Realize the integration of technology and curriculum. New media technology and teaching courses are mutually infiltrated, integrated, and actively adapted, so that the technology can transmit appropriate teaching information, and multimedia and other technologies themselves can be used as teaching resources to cultivate children's digital knowledge and skills. Through interviews, we can know that the level of information technology and teaching integration of preschool teachers in City S is still at the primary level. The specific situation is shown in Table 2:

Table 2. What are the factors affecting the integration of multimedia technology and teaching

	Teachers
The implementation effect is not obvious	36.80%
Tedious course preparation	26.40%
Has a certain effect on teaching	19.20%
Course preparation takes up more time	17.60%

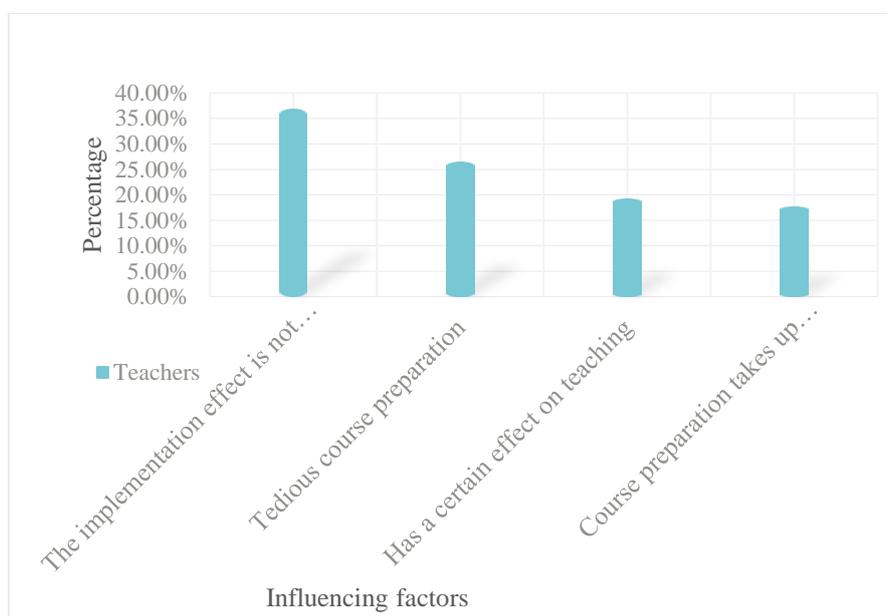


Figure 2. What are the factors affecting the integration of multimedia technology and teaching

It can be seen from Figure 2 that when asked "what are the factors that affect the integration of information technology and teaching", 36.8% of the teachers think that information technology does not play a significant role in curriculum design and implementation, and it has no effect on children's actual teaching; 26.3% of teachers think that the teacher's information technology course preparation is more cumbersome; 17.5% of the teachers think that the course preparation takes up more time and is not proficient in relevant information technology knowledge and skills. The

above-mentioned factors lead to insufficient application of teacher teaching informatization. Therefore, pre-school teachers need a good teaching integration of the external environment, and also need to improve their own information teaching technology and ability.

5. Conclusions

With the development and popularization of mobile Internet and new media technology, as well as the requirements of society and the country for the process and development of education informatization, new media technology has been widely used and researched in the field of teaching. The pre-school education period is at the beginning of education. Due to the lack of teacher resources, and it is not within the scope of compulsory education, it is also a weak link. The specific implementation and management of pre-school teaching informatization has not been able to fully obtain social and social cooperation. The country attaches great importance accordingly, so we still need to further explore the specific implementation of pre-school teaching informatization.

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