

Design and implementation of kindergarten information management system under the background of Internet

Xinchen Ke

Emilio Aguinaldo College, Manila, Philippines

Jienan Wu*

Deyang Vocational College of Technology and Trade, Sichuan, Deyang 618300, China

*Corresponding author

Abstract: With the development and application of the "double reduction" policy becoming more and more mature, and with the continuous advancement of Information Technology 2.0, we are making full use of information technology to promote the reform of kindergarten education and improve the quality of kindergarten running, it has become an important way to make full use of the advantages of information technology and adapt to the new trend of teaching reform. In order to improve the quality of kindergarten teaching, management and education, it is necessary to take the advantage of the application of Internet technology as the basis, and design a stable function and smooth interface kindergarten information management system, improving the quality of preschool education. Through the analysis of the background of the design of the kindergarten information management system under the internet background, this paper puts forward the system design ideas and implementation path.

Key words: Internet; Kindergarten; informationization; management system; design; implementation

Internet education ecology has become the only way for the high-quality development of Education Informationization and the way to promote the integration of information technology in the whole process of education and teaching. Make full use of effective information technology, promote the park-based teaching and research, expand the integration of teachers teaching information technology practice research, to promote teachers to carry out information and teaching in-depth integration of research so as to help improve the quality of kindergarten.

1. THE DESIGN BACKGROUND OF KINDERGARTEN INFORMATION MANAGEMENT SYSTEM UNDER THE BACKGROUND OF INTERNET

AI technology, Internet + , big data and Internet of things technology are deeply applied to preschool education industry to realize intelligent management of kindergarten, comprehensive management and control of industry information, and traceability of teaching management and supervision, promoting the rapid development of industry informatization. Through the management system, it can help the head to improve the management efficiency and reduce the operating cost, and through the management and implementation system, it can improve the teaching quality Through the kindergarten information management system of various resources to achieve paperless load reduction, data can be adjusted, and through the home co-education system, will be closely linked to the parents.

The kindergarten information management system is based on children, connecting isolated islands of information from parents, teachers, kindergartens, communities and even whole districts, connecting the children's growing files and teachers' workload, every effort the kindergarten has made for young children is digitally presented from the

bottom up, woven into a digital information network, and ultimately, whether it is our education administration or our society, can benefit from the interconnectivity of digital information. At the same time, the use of Internet of things technology, so that the existing domestic hardware and software platforms can be supplemented and strengthened, and help clear up the cumbersome procurement links.

The data terminal has a smart big screen and a mobile phone APP, and the manager can see clearly the various kinds of data presented in the management of our garden in time from both terminals, for example, the park management analysis, the morning attendance and epidemic prevention system and asset management data, and so on, all at a glance, if there is an exception, the big screen will immediately remind, give managers time to respond to unexpected events.

The health monitoring system, the dietary nutrition system, the exercise monitoring system, the health record system, including the observational assessment system and the home co-education system, which I'll talk about later, all the data together into each child's growth profile. Let our teachers, parents can be very intuitive understanding of children in the park three years of growth trajectory, continuous dynamic development. Among them, the dietary nutrition system pays attention to special children, realizes the functions of predicting, diagnosing, evaluating and guiding children's health, builds up the healthy resources database of children, and improves the quality of children's health management, promoting the effectiveness of individual child health management.

2.THE DESIGN OF KINDERGARTEN INFORMATION MANAGEMENT SYSTEM UNDER THE BACKGROUND OF INTERNET

The kindergarten should explore the deep integration of information technology and education, study and select new technology extensively, realize the transformation of education and teaching methods, and gradually realize the new construction of kindergarten in the information age. Such as building synchronous classrooms to achieve distance teaching and research; using big data technology to accurately analyze the needs of teachers and children's personalized professional growth and development needs; investing in Chivot interactive whiteboard, using a variety of teaching apps, the use of recording and broadcasting equipment and "recording screen, throwing screen" and other new technologies to facilitate new forms of classroom interaction.

2.1 Building a cloud based digital course repository

Independently research and development "open education mobile digital resources platform", development "young and small link guidance", "survival education", "STEM education", "air classroom" digital curriculum resources, it has effectively solved the situation that the construction of educational and teaching resources in kindergartens is relatively deficient, the level of effective utilization and sharing of educational resources is relatively low, and innovated the digital educational resources system of "open education", promote quality education resources co-construction and sharing, greatly facilitate the teaching of teachers.

2.2 Innovate the teaching mode under "Internet +" mobile terminal

On the basis of respecting children's learning characteristics and learning styles, the interactive teaching mode of mobile terminal supported by information technology is explored, an interactive teaching platform has been set up by using computer, interactive whiteboard, projector, teaching software App and other informational means, giving full play to the advantages of man-machine interactive information, such as timely presentation, large amount of information, dynamic, timely feedback, long-term preservation, and so on, can effectively stimulate interest in specific situations and help solve important and difficult points in teaching, to achieve the process of evaluation and

other functions to serve children's learning and activities.

Exciting phase. Using the interactive whiteboard design of teaching courseware, set pictures, animation, human-computer interaction experience in one, to create an interesting situation in line with children's learning characteristics, can greatly arouse children's learning interest. Learning inquiry phase. The function of man-machine interaction can be used in the process of activities, which can make children operate intuitively, strengthen the interaction between individual children and teaching media, strengthen the interaction between children and environment, and improve the teaching effect. To optimize the way of "teaching interaction", for example, in the middle class scientific inquiry activity "Animal Super Ability", young children need to combine their experience and deduce the relationship between animal super ability and bionics, interactive Whiteboard designed to help children verify the results, and the emergence of animal skills short video, more visual than the traditional picture presentation to solve the difficult points. Sharing evaluation phase. The screen-casting technique is used in the process of children's sharing and evaluation, which can present children's learning process and children's activity works in real-time and directly, inspire children to observe and think, and lead children to realize evaluation and reflection effectively.

2.3 Innovative home interactive model

In the era of artificial intelligence, man-machine learning symbiosis is based on teachers'professional development intelligence. It is no longer limited to the traditional U-G-S model or teacher-student community model, but to the physical space, social space and information space multi-dimensional development. The composition of teacher professional development symbiosis combines online and offline, real and virtual, in-and out-of-campus perspectives, the ultimate goal is to promote the professional growth of teachers by giving full play to the power of teacher autonomy and group governance. Focusing on improving parents'ability to raise their children, big data analyzed the educational perplexities and needs of parents in different parks and at different ages, invite experts in the field, famous teachers and key teachers to give child discipline lectures, focusing on the themes of "special lectures on the link between kindergarten and primary school, the adaptation of small classes to kindergarten, and the role of family committees", the combination of offline and online, the use of home interactive APP platform live broadcast, broadcast and other ways to support parents to participate in training and learning at any time. Each park carries out high-quality tutor guidance work, records "home guidance micro-video", selects the daily infant study, the activity content production micro-video to send to the parents, uses the cooperation guidance the way to promote the infant growth.

3.THE REALIZATION OF KINDERGARTEN INFORMATION MANAGEMENT SYSTEM UNDER THE BACKGROUND OF INTERNET

3.1 Development of a quality assessment and monitoring platform for early childhood development

Based on the recognition of the importance of the value and orientation of big data in early childhood development assessments, kindergartens are guided by the learning and Development Guide for children aged 3-6 years and key experiences in early childhood development in all areas, the framework of early childhood development assessment and monitoring has been formulated, the system of early childhood development assessment has been innovatively developed, the quality of early childhood development has been monitored by Big Data, and the assessment and evaluation system of kindergarten curriculum has been further improved. The Assessment Framework follows the guidelines in setting out five areas of evaluation, namely health, language, society, Science and the Arts. Based on the key experience of children's development in various fields, the teacher observation items are set up as evaluation indicators. The evaluation set evaluation level, teachers can observe the performance of children according to day-to-day rating selection, assessment of children in the five major areas of different assessment projects on the level

of development.

3.2 Construction of home co-education network evaluation system

The kindergarten has built a scientific and integrated evaluation system based on the three-dimensional development of "children, teachers and kindergartens", and uses big data thinking and information technology, innovative development of "Kindergarten education quality network evaluation system" to achieve the quality of home co-education from the offline paper voting to the online network of large data precision management. "Kindergarten Education Quality Network evaluation system" focuses on the anonymous electronic evaluation questionnaire for parents. The evaluation dimensions involve three major dimensions: kindergarten management, class curriculum evaluation and child development, to obtain the real evaluation of the parents, for the follow-up education and teaching and home education to provide precise measures to ensure.

3.3 Using the new home interactive cloud platform to realize the high efficiency and convenience of home co-education

Rely on mobile internet and mobile terminal equipment and technology to make home interaction anytime and anywhere, the kindergarten timely introduces "APP home intercommunication management cloud platform" to promote the application and innovation of mobile Internet technology in the construction of kindergarten intelligent campus, and through the use of technological means, for the kindergarten in the group under the management mode of the use of information technology to build a set of "communication, safety, teaching, growth, health" five-in-one intelligent, digital integrated management system and application platform, to really make the kindergarten of wisdom a reality. Class teachers combine the actual situation and needs of class children and parents education, using wechat Parents Contact Group, App Home Interactive Platform, creative work on class cloud home. Some class teachers have carried out daily class short story activities around children's reading interest and reading ability training, parent-child reading method exchange, etc. , teachers use apps such as "Himalaya" and "Litchi" to record audio of stories, guide children to read at night, and encourage parents and children to actively participate, record audio of stories and share them with peers, stimulate all the children's interest in reading, cultivate children's reading ability. Some class teachers carry out special punching activities around the training of class children's sports ability, labor and self-service ability, through the class cloud "micro-classroom", the values, goals and specific ways and means of children's development will be transmitted to parents, home interaction, children's home life and kindergarten life together, running education through the real life of young children.

3.4 Making use of new media and new technology to innovate home and educate online classroom

Let the information technology facilitate parents training and learning, to achieve the improvement of parents'child-rearing ability. In order to enrich and perfect the new way of home co-education and construct the home co-education network classroom, the kindergarten introduces the means of micro-video, micro-class and online live broadcast into the home co-education application. Creative use of micro-class to produce "book run childlike innocence" sound-picture reading micro-video, select professional high-level, strong reading ability of the backbone teachers combined with thematic activities for children recommended valuable reading picture books, push regular classified picture book micro-video, scientific guidance for children's parents and children around the classic picture book joint observation, understanding picture book content. This home co-education network classroom model has realized the transition from parents'offline reading to online teachers'professional leading reading, and has greatly stimulated parents'interest in accompanying their children to read together, it has effectively promoted the effect and level of home co-education.

3.5 Build "Cloud training platform", big data precision support personality training

Using web-based questionnaires to carry out surveys, big data can accurately analyze information such as the structure of teachers' ranks, the proportion of professional titles, teachers' professional development and individualized training needs, etc. , to overcome the traditional "one-size-fits-all" training mode, teachers' professional development plan and hierarchical "Menu" training program should be formulated. The "Cloud training platform" supports teachers to carry out blended learning, combining online with offline and compulsory courses, so that the training programs and content that teachers participate in can better meet the needs of teachers' recent development zones, the platform effectively tracks the training process and gains of every teacher, timely feedback the new needs of participating teachers, master the learning characteristics and needs of teachers, and help teachers grow professionally.

4.CONCLUSION

In the application of artificial intelligence in the educational activities of kindergartens, teachers should firmly establish the educational concept of "child development-oriented" in the process of application and innovation, and flexibly apply and innovate the teaching methods of artificial intelligence, promoting the reform and perfection of kindergarten curriculum. The design of intelligent kindergarten will face a series of challenges. Such as the compatibility of various levels of the system is not strong, the lack of high-quality original and innovative resources, network teaching innovation, Optimization and adjustment of the higher difficulties. The following will pay more attention to the typical pattern analysis and optimization of the smart campus construction, the typical application pattern of the smart campus tracking analysis, and the benefit evaluation and optimization of the smart campus construction and application.

REFERENCES

- [1] Wu Hequan. Opportunities and challenges in the era of big data [J]. Qiushi, 2013 (04): 47-49.
- [2] He Xiufeng. The application and development of WeChat public platform in kindergarten management [J]. Research on Preschool Education, 2014 (11): 58-60.
- [3] Yao Song. Forward-looking Analysis of Educational Governance Transformation in the Era of Big Data: Opportunities, Challenges and Evolution Logic [J]. Modern Distance Education Research, 2016 (04): 32-41.
- [4] Zhang Yun, Wang Xiaofan. Science Education Facing the New Era of Science and Technology: Challenges and Opportunities [J]. Universities and Disciplines, 2020 (06): 138-144.
- [5] Li Hongxia, Zhao Chengling, Jiang Zhihui, et al. Influencing factors of preschool teachers' acceptance of information-based teaching: an empirical analysis based on the UTAUT model [J]. Research in Preschool Education, 2017(04): 14-25.