Research on the Application of Smart Classroom in the Training of Learning Motivation for Preschool Education Majors

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ABSTRACT
Smart classroom is a new type of learning space that integrates digital teaching resources, intelligent environment, ecological model, and classroom experience. It integrates modern education concepts and cutting-edge Internet of Things technology on the basis of traditional classrooms, which drives teaching and education. The deep integration of technology has also created supporting conditions for students' motivation to learn. The article takes pre-school education majors in applied undergraduate colleges as an example, and analyzes the status quo of traditional classroom teaching, and studies the role of smart classrooms in improving students' motivation to learn. In aspects such as assessment, evaluation, etc., the application model of intelligent classrooms has been studied, and its value has been used in the training of preschool education students' learning motivation and the application of talents.

Keywords: smart classroom, applied undergraduate, preschool education, learning motivation

I. INTRODUCTION

The preschool education major of applied undergraduate colleges is a professional discipline that cultivates knowledgeable, literate, and innovative preschool education talents. The level of student learning motivation not only affects students' learning interest and enthusiasm, but also affects their future professional belonging. Therefore, the establishment of a teaching environment that is consistent with the orientation of the application-oriented undergraduates, professional orientation, and characteristics of students is of great benefit to the improvement of students' learning motivation. According to a "Investigation of Chinese University Students' Learning Investment" by the Institute of Education of Tsinghua University, some college students have poor classroom learning behaviors, weak active learning consciousness, and classroom environment are one of the factors that inhibit students' passion for learning [1]. Due to the limitations of traditional classrooms in terms of hardware support, training space, learning mode, and classroom teaching styles, it limits the independent development of students' abilities and also adversely affects the development and innovation of professional courses. It seems particularly urgent. Smart classroom is an open environment combining remote and local, digital learning and physical space, autonomous inquiry and interactive experience. The purpose is to create a "dynamically generated" ubiquitous classroom learning atmosphere, stimulate classroom vitality, and explore students' wisdom, the potential has a promoting significance for the cultivation of learning motivation for preschool education students [2].

II. PROBLEMS EXISTING IN THE TRAINING OF PRESCHOOL EDUCATION STUDENTS

A. Lack of learning motivation environment

The construction of preschool education professional classrooms has probably gone through the transformation from traditional classrooms to electronic classrooms, multimedia classrooms, and then to online classrooms and smart classrooms. Although some colleges and universities have gradually introduced advanced teaching modes such as network teaching and micro-learning, most pre-school education majors in applied undergraduate colleges still stay in the multimedia classroom stage. In the era of education informatization 2.0, the disadvantages of traditional multimedia classrooms are also increasingly prominent, Such as lack of wisdom, poor technical stability, large dependence on paper teaching materials, and other issues, the lack of a hardware environment that can guide students to actively learn.

B. Students' consciousness of autonomous learning is weak

At this stage, the classroom learning of preschool education majors is usually based on collective learning, that is, the teachers assign learning tasks, and students complete individual course or task preparation in the form of individuals or groups. In the study, due to the large number of students and the difficulty in implementing supervision for each student, and the relationship between teachers and students was misplaced, teachers could not fully understand the doubts students encountered in the study of knowledge points, and could not give students specific answers. Over time, students tend to form a passable attitude, which exacerbates the contradiction between teacher-student relationships and dilutes students' active learning consciousness.

C. Poor results of student motivation training

Preschool education students' learning motivation is mainly realized through the development of teaching resources, the transformation of teaching models, the design of school-based courses, and the innovation of training programs. Taking the development of teaching resources as an example, the current teaching resources are mainly teaching pictures, skill videos, and course explanations. Students 'knowledge of knowledge is in the fuzzy cognitive stage. If students do not have basic consciousness, it is difficult to trigger students' learning. Behavior and motivation also affect the effectiveness of classroom teaching.

III. SIGNIFICANCE OF THE CONSTRUCTION OF SMART CLASSROOMS FOR THE IMPROVEMENT OF LEARNING MOTIVATION OF PRESCHOOL EDUCATION STUDENTS

A. Meeting the needs of students' self-development and value realization

Maslow's hierarchy of needs theory divides needs into five aspects: safety, physiology, respect, emotion and belonging, and self-actualization. It considers self-actualization to be the highest level of human needs, which is embodied in problem-solving ability, consciousness, creativity, and potential etc.. [3] By the same token, preschool education students have the same needs for self-development. They hope that through professional learning, they will grow into preschool education talents with the common development of quality, ability, and knowledge, and realize their personal ambitions and ideals. Relying on a visualized teaching environment, the smart classroom can use information software, teaching resource platforms, auxiliary tools, models, etc. to establish a flexible and humane training base, allowing students to improve their professional-related job abilities in independent

learning and cooperative exploration to meet future employment needs.

B. Creating a learning environment of "doing by learning, learning by doing"

Tao Xingzhi's theory of "learning by doing, learning by doing" believes that the acquisition of human practical ability is not based on the teaching and transfer of book-based knowledge, but that students use a variety of "learning methods" and methods to explore problems on their own. The process was developed [4]. The application of this theory to the improvement of learning motivation of preschool education students also has adaptive value. Build smart classrooms, which can aggregate scattered knowledge points and learning resources through learning terminals, and use teaching equipment such as baby height and weight scales, baby baskets, baby basket holders, and simulated babies to smoothly carry out infants from 0-6 months to 30 -36 months of child development and curriculum instruction and practical training, etc., entertaining and creating fun learning environment for students [5].

C. Improving the professional skills of preschool education students

The construction of smart classrooms has not only changed the traditional classroom hardware equipment configuration conditions, but also innovated the methods and processes of classroom interaction. Using VR scene experience, digital software, and a large library of pre-school education and teaching cases, teachers can follow up on survey data and adjust skills training programs in a timely manner. In the virtual classroom learning of the smart classroom, students can realize the sacredness and fun of preschool education through the adoption, care and nursing and guidance of simulated young children, and spontaneously encourage students to actively participate in various training programs and strengthen people Experience in computer interaction.

IV. THE APPLICATION OF SMART CLASSROOM IN PRESCHOOL EDUCATION STUDENTS' LEARNING MOTIVATION

A. Teaching scenes in smart classrooms

The touch all-in-one device equipped in the smart classroom is equipped with intelligent simulation baby, infant touch table, simulation baby model, swimming pool, baby height and weight meter, etc., which can be compatible with multiple teaching scenarios and build task-oriented gamified classroom atmosphere. Teachers can use software to capture students' dynamic learning behaviors and practical abilities in the teaching process, and they can use smart devices to issue tasks in time, so that students can master the psychology of 0-3 year-old

infants in task prompts, guidance and operations. Age-specific characteristics to create a relaxed and enjoyable teaching environment. With the help of smart classrooms, teachers can also use sound props to design virtual interactive games and use human-computer interaction to cultivate students' hands-on ability and understanding of professional knowledge. Taking the artificial intelligence simulation baby as an example, the device can be used to design teaching scenarios combining fun and knowledge presentation. The artificial baby designed using artificial intelligence concept can simulate snoring, coughing, crying and other actions. Students can intuitively feel the baby's emotional changes under different sounds, and cultivate students' careful, cautious and focused attitude. The built-in sensor in the baby can detect whether the student shakes the baby, supports the baby's head, whether the baby is resting according to regulations, whether the child is abused, etc., can record the learning scene in teaching in real time, identify the "problem students" in time, and give Targeted guidance and dialing can prevent problems such as absent-mindedness in students 'classrooms and small gaps, so as to create an efficient classroom and stimulate students' interest and motivation. The smart classroom contextualized and experienced the tedious teaching procedures, which enriched the content and form of the teaching scene.

B. Simulation teaching in smart classrooms

The role of simulation teaching in cultivating students' learning motivation cannot be ignored. Using smart classrooms, teachers can carry out simulation teaching based on visualization, flipping classrooms, and inquiry-based learning to bring students an immersive feeling. Visual teaching uses VR scenarios. Experiencing technology, students can change their identities, as early teachers, baby caregivers, through the simulation environment provided by the virtual platform, can use touch, support and other actions to interact with the baby, feel the baby's physical and mental characteristics, life habits, students can be under the guidance of teachers and human-computers, they can acquire practical preschool education knowledge, be able to take care of babies of different ages, and gain a sense of accomplishment and satisfaction in the improvement of knowledge and skills. In the context of a smart classroom, teaching has shifted from mere knowledge infusion to intelligent teaching and flipped teaching. In order to enhance the guiding role of the construction of smart classrooms for students' learning goals, smart classrooms can introduce three-dimensional virtual simulation technology. Based on prestigious school teacher resources, original digital courses, and self-developed curriculum resources, it can establish pre-class previews, in-class explorations, and after-class it can consolidate into a digital resource library. Among them, resources are not limited to

teaching materials, courseware, course videos, teaching pictures, but also provide "packaged" micro-videos that serve specific student groups, tailor-made targeted learning resources for students, fusion significantly changes the learning behavior of students. With the help of smart classrooms, it is also possible to carry out inquiry-based learning practices. Based on peer-assistance thinking, a group of 2-3 students develops students' practical skills in the observation, learning, and experience of a simulated baby. Smart classrooms make simulation teaching and humanized teaching possible, and can provide a variety of teaching mode options. Take situational dolls as an example. In teaching, teachers can choose dolls of different genders and skin colors as demonstrations. Students choose their favorite simulation dolls to participate in learning based on their personal interests. Both in teaching flexibility and personalization are more traditional than in traditional classrooms with leaps and bounds of change.

C. Classroom training in smart classrooms

In order to prevent the problems of low student participation rate and single type of training programs in traditional laboratory training, smart classrooms take into account the training objectives of preschool education professionals, student learning needs, and practical settings in training programs, equipment, and hardware settings. Training content, ability training forms, etc., can carry out practical training projects in the basic skills of preschool teachers, children's games, children's curriculum guidance, curriculum design, children's physical cognition and daily care. Through classroom training, students can expand their professional knowledge and literacy on the basis of understanding the basic abilities and post requirements of preschool teachers. By designing children's action, cognition, language, emotion, and social games, planning children's music courses, sports courses, art courses, etc., they can guide students to master the developmental rules of children's cognition and emotion, and improve students' mentality, children's games, skills in life care and infant feeding. Taking the infant toilet training program in the smart classroom as an example, during the training, teachers can issue thematic tasks at any time, conduct group discussions, and transmit the results of group discussions to the teacher's backstage using the multimedia integrated terminal, so that teachers can check the students in time. The completion of the tasks, timely interaction with the students' ability to master, and the classroom training method based on the smart classroom break the shortcomings of the current classroom in teacher-student interaction and group interaction. It can be used for sharing training results, group competitions, etc., and suitable for practical training in a variety of environments such as preschool education theory and practice. Application can also cultivate students' ability

to cooperate and explore, interpersonal communication, promote the organic unity of students' theoretical knowledge, professional skills, professional literacy, and emotional attitude, and stimulate students' potential.

D. Autonomous learning in smart classrooms

Autonomous learning is the key path for students' independent development ability, learning motivation development and improvement. Possessing good self-learning ability will not only keep students 'enthusiasm for work and make reasonable use of students' knowledge and skills, but also promote professional effectiveness and keep students "active forever" in their studies. Using smart classrooms, students can learn about children's emotional interaction, living care techniques, parenting methods, physiological cognition, and child feeding, and develop students' ability to think and discover, explore, and solve problems on their own. In addition, the student department uses virtual three-dimensional roaming system, infant simulation models and other tools. Through auxiliary equipment, students can understand the relevant knowledge of artificial feeding of infants, breastfeeding, excretion care, sleep activity organization, and various curriculum design, so as to improve students' self-management capabilities. Using highly immersive VR helmets, students can be exposed to a large amount of scene interaction information and post skills under the conditions of contextualization. Using interactive knowledge points displayed at any time, students can enjoy a virtual reality learning experience in every corner of the classroom to cultivate students' learning fun.

E. Assessment and evaluation of smart classrooms

A systematic learning platform based on various terminals in smart classrooms, virtual training equipment, and simulation platforms can carry out multi-module, grid-based professional training. Teachers can use the background to efficiently obtain the completion of students' training projects and learning behavior data, and evaluation. Students can also use the assessment notebook configured in the smart classroom to test the individual's level of professional knowledge in infant development, child games, and child curriculum design based on various learning and training tasks assigned by the teacher. Under the scientific assessment, students can check for omissions and fill gaps, find their own problems and deficiencies in learning, and motivate students in the next stage of learning.

V. CONCLUSION

The use of smart classrooms in preschool education majors in colleges and universities can profoundly change the learning methods of students and build a

teacher-student relationship that is good at teaching. The future of students' employment provides a guarantee.

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