Research on the Classification of Smart Learning Environment Based on Different Development Areas

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Learning in modern society should focus on learning environment and new learning methods, and attach importance to lifelong learning and the development of a learning society. At present, the development of wisdom learning has reached the stage of 2.0, and artificial intelligence has added new vitality to the development of wisdom education. At present, the hierarchical study of smart learning environment has become a focus in the field of intelligent education and also an important part of future research. With the development and implementation of smart learning in all parts of China, classroom teaching has undergone significant changes in teaching methods, teaching resources have realized resource sharing, and teaching places have broken through the limitation of time and space.

However, at present, there are huge differences in the development and implementation of wisdom learning in different economic development regions, and the wisdom learning environment presents different levels, which directly results in the polarization of assessment. According to the China smart learning environment index report 2016, Beijing, Shanghai and other provincial capitals ranked the top in the smart learning environment index. In most eastern regions, the level of the urban smart learning environment index is higher than the average of all the assessed cities, while the results of the western regions generally lag behind the national average. So you can through the analysis, different cities in our country intelligence learning environment level differences, according to different regional economic development, this paper study the smart learning environment classification problem, adjust measures to local conditions to design and develop the hierarchical smart learning environment to adapt to the different economic development region, improve the quality and effect of different parts of the wisdom study. It is hoped that the research of this paper can provide reference for the improvement of smart learning environment.

I. smart learning environment and current situation

The core concept of intelligent learning is "people-oriented". The use of the Internet, big data and artificial intelligence to promote the improvement of education quality, pay more attention to students' learning experience, and realize differentiation and individuation is the key source of motivation to improve students' learning harvest and the main way to improve the effect of learners. smart learning environment, it is to point to a kind of students perception specific learning process in a timely manner, identify the current characteristics of learners, to provide rich learning resources, suitable and convenient interactive tools, can automatically record the learning process and evaluating learning effect, to promote the learning effective learning space or activity space.

It can realize the perfect combination of traditional learning environment and virtual environment, and better provide learners with a learning support and teaching service adapted to learners' personality. It is one of the elements of intelligent study, its main function is to pass on the wisdom of the education system, respect the differences and diversity of students, enlightening students' wisdom, constitute a complete modern education system, in order to improve ability and increase wisdom.

The composition of smart learning environment should be closely related to specific

teaching methods. There is no single and isolated smart learning environment. Wisdom learning environment to achieve the traditional physics teaching environment and integration of modern virtual teaching environment, better able to adapt to different learners learning characteristics of the support and services, its technical characteristics embodied in the recording process, identify situation, community connection, perception environment four aspects, the purpose is to facilitate learners easily, and effectively learn. smart learning environment can not only enable learners to access information resources and intelligent learning system at any place and at any time, but also provide necessary learning directions, prompts, auxiliary tools or learning evaluation at the appropriate place, time and form. Thus, in a smart learning environment, learners can learn at any time, at any place, in any way and at any speed, and this new learning environment can support learners to learn easily, intently and effectively.

With the progress of artificial intelligence and the implementation of multimedia teaching equipment, primary and secondary schools in most areas of China have initially laid the foundation for constructing "smart education". At present, smart learning environment mainly includes digital campus and classroom environment, which mainly includes smart textbooks, smart classes, smart schools, discipline innovation laboratories, harmonious campus culture, campus security system, and establishing close home-school relations.

With the help of electronic schoolbag, electronic platform, electronic screen and other tools, students in a short class to accept the information greatly increased, teaching efficiency greatly improved. However, due to the time, depth and promotion orientation of "wisdom education" in different parts of China, the reasons are the differences in economic development, local policies, ideas and regional environment. Development level is higher, the wisdom of the construction of the learning environment level has been more and more high, local policy on education to support the more wisdom, wisdom learning environment construction and the more perfect, the thought idea, the more progress, learning environment, the more advanced wisdom, wisdom the earlier time of the construction of the learning environment, development degree, among which the level of economic development is the main influencing factors.

Ii. Classification and characteristics of smart learning environment

Education informatization forms information education, education wisdom forms wisdom education. By reading a large number of relevant literature, analysis and finishing record learning environments in different parts of the wisdom of the status quo, this study according to the present can make use of learning resources and emerging learning tools, improve the learning and teaching methods, smart learning environment can be divided into high, medium and low three different levels, respectively is standardization junior intelligence learning environment, learning environment and personalized intermediate wisdom core advanced learning environment.

Standardized primary smart learning environment: in the standardized primary, the construction of smart learning environment is still in the typical stage of traditional digital campus construction.The teaching method of informatization is mainly the dissemination of knowledge rather than the creation of knowledge. Intelligence level is not high, and education information demonstration area has no essential difference or little difference. It has not produced the functions and values it should have, has not fully embodied the demonstration, and has not distinctive features. Lack of scientific design and arrangement, neglect the integrity of its teaching environment, lack of clear guiding ideology and safeguard measures.

Personalized intermediate intelligence learning environment: at the personalized intermediate level, the intelligence learning environment tends to be personalized, that is, different learning environments can be set according to different groups. The initial start of knowledge innovation. There are intelligent resources, 3D resources and simulation resources in the environment, and a STEM innovation laboratory is set up. The university has invested enough funds in the construction of information technology, and has set up a team covering education, educational technology, artificial intelligence and other majors to transform and upgrade the smart infrastructure and enrich the digital learning resources and virtual reality learning resources.

Core advanced learning environment: at the core advanced level, the school's talent training and scientific research management are all innovated on the basis of wisdom integration, reflecting the people-oriented learning mode, and taking students' physical and mental health development as the key content and fundamental goal of education. It has the characteristics of wisdom, precision, innovation and demonstration. Campus forms are three types: smart campus, innovative campus and future campus. Realize the deep integration of innovative information technology and traditional education and teaching practice, and improve the regional high-quality education resources and teaching service level.Can produce the due function and value, can fully reflect the demonstration, the innovation characteristic is distinctive.

Iii. Promotion and application of smart learning environment:

For the poor and remote areas, we can directly set up a standardized primary learning environment based on local conditions, ensure that schools are equipped with projectors and other infrastructure, build a smart school culture, and create an atmosphere of music and learning. Smooth home-school contact, to achieve home-school co-education. Family education for parents to provide students the school situation query, realize the interaction and communication, school and family provide parents family education guidance, extracurricular education to provide online service for students learning, science and technology for the students practice provide information technology environment, social activities, for the problems of students in the learning process to help. Communicate with students' parents and give feedback on their daily behaviors and learning situations, and solve problems arising from learning in a timely manner. Standardizing the primary learning environment can be directly established in remote areas such as Tibet, which will help narrow the gap between urban and rural education and reduce the generation of educational polarization.

For the moderately developed areas, the standardized primary wisdom learning environment can be improved and improved to establish a personalized intermediate wisdom learning environment. Each student is equipped with an electronic schoolbag, through the electronic schoolbag, carries on the targeted personalized learning, according to the individual answer way and the correct rate, finds the blind spot, checks the missing make up the leak. Each lecture hall is equipped with electronic screens to facilitate teachers and students to use the new science and technology teaching, connect the ancient and modern Chinese and foreign countries, broaden the classroom vision, deepen the depth of knowledge. It has the online interaction function of teachers and students, the personal space of teachers and students, and the e-learning file function. Teachers use a variety of terminals to carry out classroom teaching and support students to use a variety of terminals to interact with teachers in class. Build personalized and complete smart classrooms or digital campuses, such as mobile libraries or

smart study rooms, for students to access materials. Standardized primary wisdom learning environment can be promoted and applied in second - and third-tier cities such as Nanjing .

For developed areas (smart education demonstration areas), the core should be advanced learning environment. It can lead the reform and innovation again on the basis of personalized intermediate learning environment. The goal is to build a smart education system, take the development of teachers and students as the foundation, and promote educational reform and innovation as the core. Take the student as the center, establish subject innovation laboratory, intelligent interactive technology lab, explore the implementation of science, technology, engineering, art, mathematics and other multidisciplinary integration teaching, explore effective ways to cultivate innovative talents, interested in a subject for study or spare capacity of students innovation exploration, the students in the innovation laboratory can be imaginative, brainstorming, according to their own ideas, the innovation experiment under the guidance of professional teachers, support laboratory information management system of experimental teaching. Not only enhance students' interest in this subject, but also have a deeper understanding and goal of what students choose to major in the future. The core advanced learning environment can be initially implemented in China's advanced big cities such as Beijing and Shanghai.

The construction of a learning environment, including the principle of "people-oriented" as the personalized education, education fairness and quality, the formation of lifelong learning concept, terminal equipment, wisdom in ubiquitous network, education cloud platform, large data storage hardware and software infrastructure, such as for the development of education to create intelligent wisdom flexible and interesting environment in harmony. Different development areas can achieve different levels of smart learning environment, promote the realization and improvement of smart learning.

Four, conclusion

With the purpose of promoting and applying them in regions with different levels of development, this paper classifies the different levels of intelligent learning environments into standardized primary intelligent learning environments, personalized intermediate intelligent learning environments and core advanced learning environments. Based on the definition of smart learning environment, this paper analyzes the learning environment from the aspects of learning resources, learning tools, learning methods and teaching methods, and puts forward the classification and characteristics of smart learning environment. In the end, we propose the promotion and application of smart learning environment classification in different developing regions.

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