Research on Deconstruction and Integration Path of System Technology of Wisdom Education

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Abstract: The rapid development of IT and its continuous penetration in the field of education are subverting the theory, mode and environment of the education system. In order to deeply understand the operation mode and realization principle of wisdom education system. As far as wisdom education is concerned, its emergence and development are closely related to modern technology. With the help of modern technology platform and relying on data resource library, it is necessary to strengthen the comprehensive integration of educators and educated people, and build a highly systematic educational management system, thus forming wisdom education. Schools need to integrate modern IT with teaching, give full play to the advantages of online education, promote the development of educational informationization, promote the process of educational reform, and achieve the goal of personnel training. This paper mainly studies the system architecture of wisdom education under the background of educational informationization, deconstructs the system and technology of wisdom education, clarifies the internal context of system and technology, and combs the corresponding relationship and development map between wisdom features and IT in wisdom education.

1. Introduction

With the development of science and technology and the progress of society, human education has developed to the stage of wisdom education. According to Marx's historical materialism, the essence of the development of human society is the development of material production [1]. The development of material production is a process of continuous inheritance and expansion of human wisdom. The inheritance and expansion of wisdom constitute human social education. Under the background of educational informatization, the construction of intelligent education system is not only related to the growth and development of students, but also affects the educational quality of schools [2]. Teachers should be aware of the role of intelligent education system, actively apply information technology (IT), improve education quality, accelerate the realization of talent training objectives, and promote the development of educational informatization [3]. Due to the rapid development and wide application of science and technology, human education has entered the era of intelligent education. The internal composition of wisdom education is objectively embedded in modern educational ideas, and wisdom education and modern educational ideas are in line with the development of the times [4]. For wisdom education, its emergence and development are closely related to modern technology. With the help of modern technology platform and relying on data resource database, strengthen the comprehensive integration of educators and educatees, and build a very systematic education management system, so as to form wisdom education [5].

Intelligent education is not only the inevitable stage of educational informatization, but also an important development direction of educational informatization. Wisdom education strengthens the challenge to the traditional education model, breaks through the limitations of unity and time and space, advocates the equality of the status of education and the educated, gives play to the subjective function, strengthens the development of wisdom potential, and provides great technical support for the development of the whole modern education [6]. The improvement of IT has greatly promoted the development of educational informatization, which is also the main direction of current educational development. Wisdom education attaches importance to the integration of modern educational ideas in its development. Driven by the times, wisdom education and modern

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education are more integrated [7]. Therefore, it is of great practical significance to study the architecture of intelligent education system under the background of educational informatization. The existing research literature on wisdom education pays more attention to tracing concepts, mining contents, extracting features and creating models, and the research on new IT in wisdom education system and technology integration, technology driving of wisdom features is rare [8]. This paper deconstructs the system and technology of wisdom education, clarifies the internal context of system and technology, and combs the corresponding relationship and development map between wisdom characteristics and IT in wisdom education.

2. The necessity of intelligent education under the background of educational informatization

The rapid development of modern science and technology has greatly promoted the progress of productive forces and completely changed the real world and human life. Modern IT rapidly pushes the traditional education mode to the modern education mode. Traditional teaching mode, ignoring students' dominant position, can not meet students' diverse needs, resulting in low learning effect and difficulty in improving students' learning effect. Wisdom education is student-centered and puts the cultivation of students in the first place. In wisdom education, teachers take students as the starting point, break through the limitations of traditional education mode through wisdom education center, meet students' learning needs, provide students with high-quality teaching services, and help students grow into talents [9]. Students can freely control their learning progress by learning knowledge and technology through the Internet, which is conducive to improving their autonomous learning ability and problem solving ability. At the same time, teachers and students communicate through the Internet, which not only conveys educational information, but also establishes a good teacher-student relationship, which is conducive to students' all-round development. Through the construction of wisdom education, on the one hand, it can solve the problem of uneven distribution of educational resources in China, on the other hand, it can effectively promote educational reform, which has important practical significance.

Wisdom education, with the ultimate goal of cultivating intelligent talents, driven and supported by the new generation of IT, and the path of integrating and infiltrating the most advanced educational theory, system theory and high technology, is the advanced stage and future direction of the development of educational informatization. The essential relationship of learning scene recognition is shown in Figure 1.

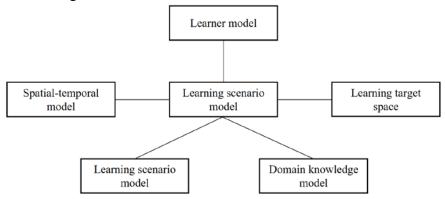


Figure 1 The relationship between the elements of learning situation recognition

From the essence of the characteristics of wisdom education, these characteristics are the release of its inherent technical carrier characteristics, and it is the great progress of IT that makes the characteristics of wisdom education fully reflected. In wisdom education, teachers and students can use the high-quality teaching resources in the learning resource library, which is beneficial to improve teachers' teaching level and students' learning achievements. Wisdom education will produce large-scale management information, such as students, teachers, teaching and other information. Management information base can effectively manage information and realize complete storage and dynamic update of basic education data. Wisdom education is a combination

of advanced educational concepts and IT, and its characteristics include intelligent perception, automatic modeling, organization and adaptation of resources, active push of services, adaptation to learning differentiation, collaboration and community, etc. A thorough analysis and deconstruction of the wisdom education system and technical details will help us to understand the internal driving force of the operation and development of the wisdom education system. With the continuous advancement of educational informatization, the data generated by schools are gradually increasing, and the role of big data technology is highlighted. Teachers manage students' data through big data technology, analyze students' actual situation, and make teaching plans for students, which is helpful to improve teaching effectiveness.

3. System and technical deconstruction of wisdom education

3.1. Deconstruction of wisdom education system

To deeply understand wisdom education and the IT it relies on, we must deconstruct the system structure of wisdom education. Starting from the integration of function and technology of wisdom education, wisdom education is a complex ecological system composed of multiple educational activities, processes and functional technology modules, which feed back each other. Among the modules, the intelligent service module occupies a central position and is the core module and running engine of the whole intelligent education system. It obtains all kinds of information from other system modules, and provides all kinds of services of intelligent education through embedded intelligent technology. Wisdom learning can be closer to learners' learning needs, meet the diversity of learning behaviors, and give learners the initiative to learn, thus cultivating more intelligent learners. The Smart Cloud analyzes the statistical data of learners and learning resources, provides intelligent suggestions and teaching tools for teaching design and resource construction, and helps teachers adapt and connect with teaching communities. In the specific teaching process, the Smart Education Cloud timely feeds back the learners' learning situation to the instructors, and the instructors dynamically provide learning intervention according to the needs, so as to accurately diagnose and evaluate the learning.

3.2. Technical deconstruction of wisdom education

After the systematic deconstruction of wisdom education, we can find that compared with other educational methods in the past, the characteristics and functions of wisdom education can be supported by corresponding IT. There are statistical differences in distribution and no correlation in surface features between learners and information acquired by learning context perception. In order to enable the service engine of Smart Education Cloud to accurately identify learners' perceived information and provide appropriate service feedback, it is necessary to extract the features of learners' and learning context-aware information and establish an abstract and accurate representation method suitable for computer system processing. The elimination of learning differentiation is realized through the intelligent interaction between learners and technical environment. The factors of intelligent interaction include learning equipment and physical environment, learners' and learning context awareness, learner modeling and intelligent services pushed by intelligent education service engine to learners [10]. Learning objectives can be judged by factors such as the persistence of learning time and systematic selection of learning resources, or can be selected by learners themselves. Smart learning devices are comprehensive learning devices that integrate smart learning clients and learning tools, and have the ubiquitous access capability of the network and the omni-directional interaction capability with smart education cloud. According to different learning objectives and learning situations, intelligent learning devices can be portable and mobile, and can also be fixed and support a complete learning experience. It is the starting point and destination of wisdom education to provide intelligent and personalized learning service for learners, which is realized through the collaborative work of all parts, functions and modules in the wisdom education system.

4. Modern educational concept under intelligent education

The active participation of enterprises is a necessary condition to ensure the vitality and sustainable development of wisdom education. Education informatization has spawned a large number of enterprises with advanced technology, rich products and in-place services. Establishing school-enterprise cooperation alliance can give full play to the advantages of intellectual resources of colleges and universities and industrialization of enterprises. Orientation from traditional educational thought to modern educational idea Modern educational idea is a new idea constructed on the basis of thoroughly criticizing traditional educational thought. Education has existed since the day when human beings came into being. Social education is the most primitive and main educational form of human beings. Family education and school education are educational forms derived and separated from the development of social education. The teacher's task is to design the teaching process and situation according to the syllabus and teaching purpose, and to guide students to learn how to find and solve problems.

Students have to resort to the corresponding technology and knowledge support in overcoming difficulties by themselves, so as to master knowledge, tap the potential of wisdom and improve their innovative ability. Modern science and technology has penetrated into every detail of modern social life and become an inseparable part of every life. Computers, networks, smart phones, network disks and cloud disks, which are equipped with powerful technical functions and resource storage functions, have completely changed the life of traditional society, making human society enter the era of wisdom education in a very short time. Education is the embodiment of smart city in the field of education, and smart city can provide good technology and application soil for the development of smart education. The development of smart education should always pay attention to the new technologies, new applications and new services in the construction of smart cities, and ensure the openness and interoperability of the smart education system.

5. Conclusions

Wisdom education is the inevitable trend of the development of educational informationization. Schools should make long-term preparations and improve the wisdom education system, so as to achieve good teaching results. With the development of society and the promotion of science and technology, wisdom education develops rapidly, and tends to be more global and personalized. Wisdom education is a long-term and complicated systematic project, and it is the high-end form of educational informatization development. In the process of promoting the research and application of wisdom education, it is helpful for us to deeply understand the wisdom source and essence of wisdom education by examining the wisdom characteristics brought by technology from the system and technology angles. Under the background of intelligent education, education is increasingly separated from the direct control of state and government power in the globalization and personalized development, and then forms a self-expanding mode. Under the background of educational informationization, constructing intelligent education system can improve students' learning effect and teachers' teaching level. In the intelligent education, schools should build an intelligent learning environment, teachers should use intelligent teaching methods, adopt intelligent teaching evaluation, and provide all-round services to meet the diverse needs of students.

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References

[1] Cui Jiaqi, Wang Cong. Exploration of personalized service mode of smart education environment in colleges and universities under cloud architecture[J]. Journal of Northwestern

- Polytechnical University Social Science Edition, 2016, 36(004): 125-128.
- [2] Huang Tao, Wang Yiyan, Zhang Hao, et al. Research trend of learner modeling in the field of intelligent education[J]. Journal of Distance Education, 2020, 038(001):50-60.
- [3] Jin Lei, Li Longzhi, Wang Ligang, et al. Research on the construction of the training system of smart transportation in higher vocational colleges[J]. Journal of Liaoning Provincial Transportation College, 2019, 021(005): 49-52.
- [4] Wei Li. Research on the integration of police English teaching and wisdom education in public security colleges [J]. Journal of Liaoning Police College, 2020, 123(05):119-122.
- [5] Gao Chaobang, Li Yi, Li Xia, Zhou Qiang. A Preliminary Study on the Construction of Smart Education Ecosystem[J]. Education and Teaching Research, 2020, 296(11):101-112.
- [6] Gao Linlin, Chen Song, Ma Dan, et al. "Smart Education" under the in-depth integration of information technology and education and teaching [J]. Journal of Shenyang Normal University (Natural Science Edition), 2016, 034(003): 372-375.
- [7] Wang Zihong. Research on the Framework of Smart Education System under the Background of Education Informationization[J]. Think Tank Times, 2018, 168(52):164-165.
- [8] Wang Jing. Research on the construction of regional education resource sharing based on the smart education cloud platform[J]. Education Modernization, 2018, 5(22):125-127+155.
- [9] Wang Youmei, Wan Ping, Zhao Wenzhu, et al. From Maker to Creative Citizen: Maker Citizen and Its Cultivation from the Perspective of Smart Education[J]. Audio-visual Education Research, 2019, 319(11): 6-12+28.
- [10] Bao Ping, Liu Yunjie. Exploration of Smart Classroom Integrating Smart Education Concepts[J]. Modern Information Technology, 2018, 002(007):139-140.