The Essence and Composition Elements of Wisdom Education

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The advancement of modern information technology has brought innovative ideas to education and has also supported education reform and development. At present, China's education information level has significantly improved, providing strong support for wisdom education development. In our opinion, wisdom education is a very pertinent choice and essential trend of China's education development in the information age. This article discusses the correct understanding of wisdom education, clarifies the basic structure of wisdom education, and makes several suggestions for the development of wisdom education.

EDUCATIONAL informatization refers to the process of universally applying modern information technology in education, developing educational resources, optimizing the educational process, training and improving students' information literacy, and ultimately promoting education (1). The existing educational information teaching integrates advanced information technology of the Internet of Things, cloud computing, and big data. Wisdom education advocates using the power of information technology to promote the comprehensive, coordinated, and sustainable development of learners' wisdom. For example, under the influence of the COVID-19 pandemic, schools are unable to carry out normal teaching activities. China has adopted the "School is Out, But Class is On" method to continue teaching activities. Teaching activities are migrated from offline to online, teachers' teaching is from classroom face-to-face instruction to online cloud, and students' learning is from classroom listening to home learning. "School is Out, But Class is On" has completely changed the way students learn and the way teachers teach, and it has genuinely subverted the teacher-centered teaching model in traditional teaching (2).

Understand the Essence of Wisdom Education
The Rapid Development of Wisdom Education

Wisdom education, as a high-end embodiment of education informatization, has received extensive attention worldwide. Although countries worldwide have proposed different wisdom education strategies, the vision and goals of wisdom education all reflect the main purpose of building wisdom countries and cities, reforming teaching models, and cultivating outstanding talents. Therefore, it is necessary to grasp wisdom education from the national level and cultural realm (3). The concept of wisdom education has been universally recognized. In recent years, education and teaching reform practices in various countries have increasingly shown the importance of education informatization (4). As of September 2007, 42 states in the United States provide K-12 online teaching services; the 2011 survey report shows that the development of K-12 online learning has contributed to the rapid growth of basic education online learning products and services in the United States (5). The U.S. Federal Department of Education has proposed an education reform and development plan centered on "Wisdom Education", and the President's Office has released a report on Preparing for the Future of Artificial Intelligence (6). In Australia, in Smart Australians-Education and innovation, schools are encouraged to add interactive classrooms, change the learning mode, and improve teachers and managers' abilities (7). Singapore released

the "iN2015 Planning", proposing that information technology should be used to enhance further learners' skills (8). China's "Thirteenth Five-Year Plan for Education Informatization" and "Education Informatization 2.0 Action Plan" put forward "wisdom education" as an essential task. It proposes that "based on emerging technologies such as artificial intelligence, big data, and the Internet of Things, relying on various smart devices and networks, actively carry out innovative research and demonstration of wisdom innovation, and promote the reform of education mode and ecological reconstruction supported by new technologies" (9, 10).

The Essence of Wisdom Education

Teachers use new information technology as an educational tool under the traditional teaching model, gradually improve the teaching methods in practice, improve students' quality, and realize the modernization of education. Under the original education system, applying modern science and technology to teaching is a common teaching method reform. Under the original teaching model that teachers and students are more familiar with, the use of suitable modern information technology means optimizing the existing education and teaching methods. This will help improve learning efficiency and further improve teaching in a limited time. Multimedia technology is used in classroom teaching, and information collection technology is used to summarize students' homework and exam answer information, simplifying the processing and analysis steps of teachers after class, saving time and providing students with more personalized teaching guidance. Fundamentally solve the problems in education and teaching, realize true education informatization, and guide students to deepen the way and direction of expansion, clarify the direction of students' independent learning, and promote learning efficiency and learning effect (11).

Wisdom education fully embodies the "learner-centered" idea, emphasizes that learning is a process full of tension and balance, and reveals the profound connotation of "education should serve the wisdom development of learners" (12). While wisdom education further develops digital education, it also intelligently upgrades teachers' teaching, management, scientific research, and related services. Teachers enhance their professional development in the environment of smart teaching to cultivate innovative talents. The use of diversified teaching resources and advanced information technology to carry out rich teaching activities has also promoted students' self-knowledge, self-discovery, and self-improvement.

Composition of Wisdom Education

On March 13, 2012, the Ministry of Education of China formally promulgated the "Ten-Year Development Plan for Educational Informatization (2011-2020)". It determined that "Education must adhere to the principle of educating people, take the innovation of ideas as the guide, take the construction of high-quality educational resources and information-based learning environment as the foundation, take the innovation of learning methods and educational models as the core, and take institutional mechanisms and team building as the guarantee. In the process of building a learning society and building a country with strong

human resources, give full play to the supporting, developing, leading, and innovative role of educational informatization." (13). Therefore, based on modern information technology and new educational concepts, the full implementation of wisdom education relies on students' and teachers' cooperation in the environment of wisdom education.

The Environment of Wisdom Education

The basic and critical work for the realization of wisdom education is to build an environment that matches the concept of wisdom education. Only on this basis can various practices be carried out. Leaving the wisdom education environment, the so-called wisdom education is just empty talk. The wisdom education environment is a new type of education environment supported by technology. It is an educational ecosystem that connects various places. Compared with the wisdom learning environment, the scope of the wisdom education environment is relatively broader. It includes the wisdom learning environment and the wisdom teaching environment, and the wisdom management environment; not only the wisdom school education environment but also the wisdom family education environment and social education environment (14).

Different scholars have put forward different opinions on the composition of the wisdom education environment. Liu Jun proposed that wisdom education's environmental factors include six dimensions: learners, facilitators, resources, equipment, tools, and learning activities. Supported by advanced information technology, grasp the basic learning situation of students in practical teaching. Construct problem situations and carry out exploratory learning activities with students as the center. Use big data to intelligently analyze and classify other students' different learning situations to provide teachers and students with more accurate learning situation feedback and use rich teaching resources to provide students with personalized teaching guidance. The learning environment of wisdom education has created good conditions for teachers' professional development and students' wisdom. In the end, information technology and learning resources caused a profound change in teaching and learning (15).

Zhao et al. proposed that the wisdom education environment is an intelligent space and condition for supporting the educational community to carry out educational activities (16). The construction of the wisdom education environment should center on the academic community. Under the guidance of advanced learning, teaching, and management theories, technical intelligence is used to perceive teaching, learning, and leadership situations and identify the education subject's characteristics. It provides practical resources, tools, and services to develop educational activities and effectively promote the community of education's wisdom.

The existing wisdom education environment is mainly an educational environment based on Internet technology. To improve the wisdom education environment, it is necessary to study the wisdom education environment model's construction carefully. Its model construction elements include: wisdom learning community, intelligent materialized form environment, intelligent technology resource environment (including wisdom technology and wisdom education resources), and wisdom edu-

cation humanistic environment (17). The wisdom learning community is the most active subject among them. The starting point of the wisdom model's construction is to promote the smooth progress of activities and provide technical services for wisdom education. Provide learners with wisdom resources, wisdom information, and intelligent services according to their own needs. There is also a wisdom evaluation part in the wisdom education environment. This part can provide timely feedback on learners' acceptance status, accurately reflect the status of wisdom education, and better realize visual control and remote supervision.

The Promoter of Wisdom Education

Wisdom education is not a mere "+informatization" concept. The intervention of information technology has changed the educational system and structure. The roles of the elements of the education system and the relationships between the components can be reconstructed. The academic environment, educational strategies, and educational methods are redefined (18). In the process of wisdom education, teachers play an essential role. Only teachers with the awareness and quality of wisdom education can make wisdom education indeed implemented. For the development of wisdom education, teachers need to make the following changes:

The Transformation of Teachers' Cognition

Wisdom education requires teachers to make full use of information technology and resources in a modern teaching environment, build a good learning environment, and mobilize students' enthusiasm, initiative, and creativity in learning. Therefore, in wisdom education, teachers should change traditional teaching concepts and firmly establish a student-centered teaching concept. Learn and use modern educational technology to deeply analyze the characteristics and needs of learners. The use of information technology to design learning situations provides learners with personalized and high-quality digital learning platforms, learning resources, learning services, and learning evaluations to realize students' autonomous learning and enhance their learning ability.

Teachers Become Users of Educational Technology

In the teaching process, teachers are not only the organizers of informationized education but also the guides of informationized learning; they are not only the developers of informationized teaching resources but also the users of informationized teaching resources; they are not only the designers of informationized teaching but also the evaluator of the informationized learning. In the context of wisdom education, the improvement of informatization teaching ability is the need for teacher education reform and the lack of teachers' capacity and quality improvement. It is also the need to train a new generation of technical skill-based application talents. Related theories of teacher professional development, knowledge, and skills are the primary manifestation of teacher professionalism and an essential part of teacher professional development (19). The arrival of wisdom education has brought opportunities and challenges to the professional development of teachers. Teachers in a wisdom educa-

tion environment can make full use of modern information technologies such as the Internet, big data, and cloud computing to combine Internet education, online education with traditional offline education and give full play to teachers' initiative.

Teachers can only give full play to their advantage if they master modern information technology proficiently. Otherwise, it is limited to educational technology and may become an obstacle to education and teaching. Simultaneously, the comprehensive and in-depth application of information technology in the education field will inevitably bring more standardized morality, more democratic politics, and more pleasant emotions, all of which will bring developmental challenges to teacher education. Therefore, in the face of developing technologies such as big data, cloud computing, and the Internet of Things, teachers need to "integrate" into it. They need to use modern information technology networks and platforms for independent learning and active development and continuously improve their professional qualities and lifelong learning capabilities (20). In the context of wisdom education, through the design, development, and utilization of information-based teaching resources, teachers change from "lead actors" to "directors" in the classroom and carry out student-centered teaching activities, enhancing students' abilities to obtain, analyze and utilize resources. Ultimately enhance students' digital literacy and innovation awareness to achieve the goal of talent training.

Learners of Wisdom Education

Fundamentally speaking, wisdom education promotes the transformation of students' learning methods, improves the efficiency of learning, improves the academic level of knowledge, and promotes their overall development. Wisdom education must firmly establish a student-centered education concept. Everything starts from the actual situation of students, through technology to make students want to learn, willing to learn, and know-how to learn, and finally achieve the development goal of "anyone learns, learns anywhere, and can learn anytime" (9). To this end, the following changes need to be made:

Changing the Way of Learning

With the integration of teacher teaching and the practical application of information technology, students in the wisdom education environment are learning subjects. Compared with traditional learning methods, learning efficiency will be significantly improved. The wisdom education environment makes the presentation of information more prosperous and makes learners' knowledge representation methods and activity participation methods more flexible and diverse. It can also judge the needs of the classroom subject, that is, learners, based on the real-time classroom situation, intelligently analyze various problems that appear in the teaching process, and intelligently push the corresponding teacher and student resources. Wisdom education brings more convenient learning tools to students. There are more targeted answers to the difficulties and knowledge points encountered by students in their learning. Students can learn and consolidate knowledge points in various environments, both on and off-campus. In the wisdom learning environment, learners can use the cloud system's convenient interactive tools to conduct group exploration and collaborative learning and conduct

group-to-group communication and interaction and instant feedback for specific knowledge or difficult point in the course (21).

There is no inevitable contradiction between students' autonomous learning and performance improvement. To achieve a change in teaching mode, teachers need to be brave enough to change their teaching concepts and boldly return the autonomy of learning to students (22). In the context of wisdom education, the role of teachers has undergone significant changes. The Internet of Things, big data, and cloud computing technology make learning learner-centered inquiry-based autonomous learning possible. Students are the inquirers of active learning; the wisdom constructor and the teacher are designing, constructing, and using classroom teaching elements to ensure that students are inspirers, guides, and assistants in creating wisdom (23).

Find A Path to Self-Directed Learning

Wisdom education allows students to get rid of the constraints of time and space. In this way, it can make students co-exist in a virtual space, students can write together to complete learning projects or practical projects, and enhance students' autonomous learning ability in the process of cooperation and communication. This will enhance students' learning initiative and enthusiasm and cultivate students' subjective awareness, writing awareness, and learning efficiency (24).

Each student is a relatively independent individual, and there are significant differences. The modern education information technology of wisdom education is more beneficial to the individual development of students. Scientific and technological means can record and analyze each student's actual data, emphasizing the unique needs of differences among students. If students' individual needs are met, they will drive their positive emotions, and a good learning attitude will help students improve their self-management capabilities (25).

The Internet education information platform has a unique information transmission function. It allows students to have another communication tool while studying; it will enable students to communicate with classmates promptly when they encounter problems and share different views; it also allows teachers to answer questions and solve puzzles more conveniently. Students can even use the Internet platform to establish fixed or mobile after-class discussion groups under teachers' guidance. Through such a learning group, brainstorming in a more comfortable and convenient environment freely expresses their opinions, explains problems, and gradually cultivates self-confidence in learning (26).

Use the rich teaching resources and tools of the Internet platform as support, and push the corresponding learning resources for different students. Based on students' learning development, cultivating students' learning awareness and independent problem-solving ability can improve their academic performance and realize authentic autonomous learning (27).

Improve Learning Ability

Students' autonomous learning ability directly affects their learning effectiveness and involves the formation and development of student's personalities. Therefore, cultivating students' ability to learn independently in teaching is of great significance to students' life-long development (28). In the environment of wisdom education, by listening to lectures, self-directed learning, and exploring different learning methods for each knowledge point, a personalized learning network is established for students. Accumulate the teaching wisdom and learning experience of the best teachers and best partners in the learning road network, and provide high-quality teacher resources and typical student learning experience to all students who need it anytime and anywhere (29)

Conclusion and Suggestion

The booming wisdom education is a significant issue of practical significance. With the development of technology, human society has entered the era of data. Plans and decisions are all based on data. Education will gradually become the wisdom education model: learner-centered, personalized learning, provide learners with all aspects of support and improve teaching and learning effectiveness to a new level.

Wisdom education currently stays more in the realm of ideas, and there is no real comprehensive development restricted by many conditions. First, the ideology of traditional education is deeply rooted. In many cases, teaching activities are more understood as one-way teaching by teachers, ignoring the exertion of students' subjectivity, and ignoring students' autonomous learning. Second, the application level of teachers' educational technology needs to be improved. Faced with the inadequate preparation of modern information technology teachers, many teachers still use traditional teaching methods and means to carry out education and teaching work, and teachers are unwilling to use new technical means more. Third, the integration of educational technology and classroom teaching is not enough. Educational technology and classroom teaching have their own way, and there is no typical case of successful application of educational technology.

The first is to change teachers' and students' concepts and establish an advanced education model to develop wisdom education. Simultaneously, the appropriate use of modern technology, especially Internet technology, to support good education models and promotes the transformation of teacher teaching and student learning (30). Wisdom education maximizes the use of information and resources and ultimately achieves the goal of improving teaching quality and students' learning literacy. Take the student as the center, identify students' different learning needs through the acquired learning situation information, improve student participation, and improve teacher's teaching.

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