

## **Research on the role of modern information technology in promoting the leadership of informationization of higher education**

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**Abstract:** The construction of information-based leadership is of great practical significance in driving the development of higher education. By giving full play to the application advantages of modern information technology, an educational system covering all levels of higher education is constructed, we will comprehensively improve the level of informationization and intellectualization of higher education, and help to realize high-quality development of higher education. This paper analyzes the role of modern information technology in improving the leadership of information-based education in colleges and universities, and puts forward some relevant strategies to improve the leadership of information-based education in colleges and universities by using modern information technology.

**Key Words:** Modern Information technology; colleges and universities; education informationization; leadership; promotion role

The phased development of the informationization of higher education has put forward higher requirements for the basic quality of the managers in charge of the informationization of higher education, it is the foundation and guarantee of the promotion of it-based leadership to establish and perfect the relevant evaluation standards of it-based leadership in colleges and universities, and to build an it-based training environment in line with the training of future teachers, it is also necessary to strengthen the responsibility of leaders, to cultivate information culture gene, to make culture become the internal driving force of teaching innovation, so as to better guarantee the sustainable development of information construction in colleges and universities.

### **1. THE ROLE OF MODERN INFORMATION TECHNOLOGY IN PROMOTING THE LEADERSHIP OF INFORMATIONIZATION OF HIGHER EDUCATION**

In order to realize the Development Goal of education informationization 2.0 era, we should renew the development idea, adjust the development position, innovate the development means and grasp the development center. In the era of educational informationization 2.0, people-oriented and all-round development of teachers and students are emphasized, its development goal is to realize the intelligentization and individualization of the teaching process and to form a new ecology of education. In terms of development vision, the era of education informationization 2.0 should be in the forefront of the world, providing Chinese wisdom and Chinese scheme for the development of international education informationization.

The development of educational information leadership in colleges and universities is a dynamic process, and its connotation always changes with the development of information technology and educational information. Information Technology and leadership are two-way interaction, information technology for leadership development to create a new practice environment, so as to change the leader's knowledge structure and the nature of leadership, at the same time, leadership also affects the application of information technology and its effect. The information-based leadership of leaders is formed through mutual construction in interaction.

Generally speaking, information-based leadership mainly includes value-oriented ability, comprehensive management ability, effective management ability and performance management ability. Among them, the value-oriented ability includes the ability to formulate scientific and reasonable information value policy, to determine the strategic direction and strategic deployment of information technology. The comprehensive management capability includes the establishment of management structure, organization design, process and system management, informationization goal setting, etc. , to realize the strategic integration of the information system and the school in a long-term sense, the effective management ability includes the demand management, project management, operation and maintenance management, security management, etc. , that is, on the premise of a reasonable comprehensive governance structure, the above-mentioned aspects are effectively managed to achieve value goals and specific governance goals, to ensure that the project benefit maximization and risk minimization. Performance management capability includes IT performance evaluation, IT performance improvement suggestion, that is, the ability to evaluate and evaluate the implementation effect of information-based comprehensive management, effective management, etc. .

In the process of promoting the development of education informationization, it is the key to promote the construction and application of college informationization that the leading cadres, especially the top leaders, enhance their informationization leadership, its system planning ability, information-based teaching and curriculum reform leadership ability, teachers' professional development leadership ability and so on, will directly affect the school education information development and the deep-level application. It is of great pertinence and practical significance for the leading cadres of colleges and universities to promote the development of connotation and quality of colleges and universities.

## **2. THE CONTENT OF UNIVERSITY EDUCATION INFORMATIONIZATION LEADERSHIP UNDER THE APPLICATION ENVIRONMENT OF MODERN INFORMATION TECHNOLOGY**

Under the background of informationization, the teaching management work of the school must also carry on the innovation unceasingly, higher education needs the ability to plan and design the direction, goal and path of wisdom education and wisdom campus from the overall perspective. The top-level design capability of college education in the field of smart education and smart campus involves two aspects: first, to establish a clear vision of smart education and Smart Campus Development; We should formulate clear goals and plans for the short, medium and Long-term development of wisdom education and wisdom campus. In the aspect of vision-making, higher education should not only combine the actual situation of the school, but also combine the members of the information management team of the school and the key teachers of the subject to discuss together, at the same time, we should show the bright future of Smart Education and Smart Campus Development to all teachers and students through various ways, the overall trend of educational reform and educational information development should be considered comprehensively in higher education, and the development of intelligent education and intelligent campus should be considered and grasped as a whole. Specifically, according to the present situation, characteristics and conditions of school informationization, college education should put forward the general objective, basic ideas,

implementation scheme and main contents of wisdom education and wisdom campus development.

The construction of information-based teaching environment has always been the core content of school information development. Accordingly, the ability of organization, management and decision-making in the construction of information-based teaching environment has always been an important index to evaluate the leadership of information-based education in colleges and universities. With the development of intelligent education, the design and construction of intelligent campus, as an intelligent learning environment to support the development of intelligent learning activities at school level, is bound to become an important task in the era of educational informationization 2.0. The intelligent learning environment is a kind of interactive tool which can perceive the learning situation, recognize the characteristics of learners, provide suitable learning resources and convenience for learners, and can automatically record the learning process and evaluate the learning results, a place where learners can learn effectively. Smart campus is a kind of high-end learning environment in traditional digital campus with the development of information technology. It is more complicated than traditional digital campus in technical tools, functional structure and application mode.

It is always the starting point of educational information planning and development to create an information-based learning environment conducive to students' learning and to promote their all-round development. The majority of teachers are the implementation of information-based teaching the most basic executors, training high-quality information-based teachers is the key to effectively promote the development of school information. Therefore, college education needs to pay attention to how to make teachers and students get better development in the process of education informationization. To construct a new learner-centered educational ecology to promote the all-round development of human beings, and secondly, to list "The overall promotion of information literacy" as one of the eight major actions, it is suggested that the information literacy of teachers and students should be greatly promoted. We should change the orientation from the school administrator to the teacher-student development director, and carry out the school information construction from the perspective of serving the all-round development of teachers and students in the whole school, to construct the material environment, the system environment and the cultural environment which are conducive to the all-round development of the teachers and students in the whole school, to guide the teachers and students to understand and adapt to the informationization, and to actively support the teachers to enhance the teaching ability of the informationization education, students are encouraged to apply appropriate technical means to their studies.

The construction and application of new technologies such as cloud computing, big data, artificial intelligence and virtual reality need a lot of manpower, financial and material resources. The effect of school education informationization construction and the degree of Teachers' informationization teaching and students' informationization learning are the problems that colleges and universities should pay attention to. Therefore, higher education needs to systematically consider and comprehensively evaluate every link of education informationization from the aspects of efficiency and effect, in order to provide feedback information for the sustainable development of education informationization, the problems in the process of education informationization construction were diagnosed and the successful experiences were summarized. The informationization evaluation ability of higher education has become a very important part of its informationization leadership, which requires higher education to have the knowledge and ability to make value judgment on the problems and effects of education informationization, at the same time, it is necessary to pay attention to the development of the ability of performance evaluation, to establish the thought of performance evaluation and to master the methods of performance evaluation.

### **3.BASED ON THE MODERN INFORMATION TECHNOLOGY, THE LEADERSHIP PROMOTION**

## **STRATEGY OF UNIVERSITY EDUCATION INFORMATIONIZATION**

### **3.1 Establish information-based training and learning mechanisms**

Schools should establish a long-term mechanism and training system for information-based learning, as well as the latest theories and ideas of intelligent campus construction, especially some important documents issued by the state intensively in recent years, to establish a system of exchange and learning with benchmark schools and typical developed regions in order to keep abreast of the latest developments in the construction of smart campuses, and to establish a system of regular communication and contact between school business departments and information-based departments, to ensure that the middle-level team of the business department is aware of the information trends, and that the middle-level team of the information department is aware of the various business trends in the school, and to fully encourage regular and irregular academic exchanges, through the rich and diverse training and learning to generate intelligent teaching, scientific research, management, service and other areas of innovative development of new ideas.

### **3.2 Establish an efficient information-based organization and working mechanism**

The school needs to set up an efficient information organization, such as Information Leading Group, CIO, Information Office, Information Technology Department, Information Expert Advisory Group, supervision and Evaluation Group, and clear responsibilities. At the same time, the school information-related standards, norms and working mechanisms to adapt to the information-induced teaching model innovation and business process reengineering and other change needs, ensure middle-level management team to work efficiently in the implementation of smart campus. To establish the performance evaluation index system of informationization, and make a systematic, objective, fair and accurate comprehensive evaluation on the management level, benefit and influence of the completed smart campus project, so as to determine whether the goal has been achieved or not, the result is reasonable and effective, and the experience is summarized and the lesson is reconsidered, which provides the beneficial reference for the follow-up work decision-making. Improve the management level and decision-making ability of middle-level management team through information performance evaluation.

### **3.3 Enhancing information literacy**

The information literacy of the teaching staff includes the information consciousness of the teaching staff, the application ability of the information tool, the teaching design based on the network and the application ability, etc. . To enhance the information literacy of the staff, it is necessary to formulate relevant standards of information literacy, such as whether the staff are skilled in the application of various management and service systems in the smart campus, whether it is possible to collect, utilize, process, share, exchange and evaluate various kinds of digital resources by means of informationization, whether it can make use of the information technology to carry on the curriculum teaching design, the teaching content development, the teaching activity organization, the teaching appraisal and the reflection and so on, whether can use the information technology to explore and summarize the new method, the new way in the teaching practice. The school can organize information technology skills demonstration training, gather intelligent education management and teaching excellent model cases, teach the latest technology content and application results, help teachers and staff to develop the awareness of intelligent education, master intelligent educational tools to improve the ability to solve educational and teaching problems.

### **3.4 Create a good information culture atmosphere**

Smart teaching, Smart Resources, Smart Management, Smart Service, smart facilities are all the focus of the construction of smart campus, each field needs the corresponding input of staff. A good campus information culture

can unite the whole school staff to work enthusiastically towards the direction of the smart campus, which needs the school leadership to construct the whole school teachers and students identity of the common vision of informationization, special attention should be paid to: the establishment of a cross-disciplinary, cross-business, cross-sectoral innovation and cooperation of cultural mechanisms, faculty and staff in various fields while continuously improving their professional development, it is also necessary to actively apply modern information technologies such as big data, virtual reality and artificial intelligence to explore new models of education and teaching such as interdisciplinary teaching and cross-departmental business management, to promote the integration of information technology and education and teaching, to set up a“People-oriented”“Management-based, service-centered” concept of smart campus construction, the application of new concepts and technologies in information technology to the operation of this post will make school teaching more personalized, management more refined and decision-making more scientific, encourage staff, students to create a work community, to form a sharing and cooperation of information culture, to promote the sharing of knowledge and experience between all teachers and students.

#### **4 CONCLUSION**

The ability of information-based teaching is one of the necessary abilities for university teachers, who should not only have a solid theory of information-based education and a keen awareness of information-based education, but also master excellent information-based education technology. Improving the information-based teaching ability of university teachers is not only a necessary condition for their personal and professional development, but also an inevitable requirement of university education reform. Only teachers and schools work together to form a cohesive force, improve the ability of information-based teaching, improve the quality of education and create a first-class curriculum.

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