

Research on the Transformation and Development of Higher Education Management under the Background of Smart Education

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ABSTRACT

With the rapid development of information technology, the integration of education and science and technology has gradually deepened. However, in this context, there are still some problems in higher education management, such as outdated management philosophy and urgent need to update the management mode. In order to further promote the transformation and development of higher education management, higher education administrators should deeply understand the opportunities and challenges for the high-quality development of higher education under the background of smart education. This paper aims to discuss the current situation and problems of higher education management under the background of smart education, and on this basis, puts forward countermeasures and suggestions for the transformation and development of higher education.

KEYWORDS

smart education; higher education; management philosophy; management mode; incentive mechanism

Under the background of the rapid development of modern information technology and the gradual formation of intelligent technology and educational information network, smart education, as a new education model, is gradually penetrating into all levels of higher education. Through big data analysis, cloud computing, artificial intelligence and other technical means, colleges and universities can effectively integrate education and teaching resources and realize the optimal allocation of resources, so as to provide more diversified, convenient and efficient learning opportunities for the comprehensive development of students, and further promote the transformation and development of higher education.

1 Current Situation of Higher Education Management under the Background of Smart Education

1.1 Outdated Management Philosophy of Higher Education

In the context of the rapid development of information technology, college students' learning methods, needs and expectations for educational content have changed significantly^[1]. However, some colleges and universities still continue the traditional mode of education management, and emphasize decision-making and instructions from top to bottom, so that the education reform is slow and difficult to adapt to the rapidly changing social needs in the context of smart education.

College management often fails to give teachers and students the opportunity to express their opinions when making decisions, so that the decisions cannot fully reflect the actual situation and needs of the grassroots. Some higher education administrators still maintain a conservative attitude towards the continuous innovation of educational technology, believe that technology can not replace traditional educational methods, and are unwilling to actively integrate educational technology into teaching and management practice.

1.2 Urgent need to update the Management Mode

The management process of colleges and universities is relatively standardized, and the educational administration management system can basically complete the automatic processing of course arrangement and grade management, but there are also problems such as serious hierarchy and lack of flexibility^[2]. Under the traditional management mode of colleges and universities, the formulation and implementation of any decision need to be approved by multiple management levels of colleges and universities step by step, and the final decision can only be made after deliberation and approval by every department. As a result, the whole decision-making process takes a long time, the management efficiency is low, and it is difficult to solve the needs of students and teachers quickly after finding them, which affects the effectiveness of policy implementation. Especially in the face of emergency affairs, the drawbacks of this management mode will be more obvious.

1.3 Insufficient Incentive Mechanism of Education Management

The insufficient incentive mechanism is one of the important obstacles in the smart development process of higher education management. At present, some colleges and universities have the problems of single subject and deficient means in the construction of incentive mechanism, which seriously restricts the comprehensive implementation of smart education management [3]. At present, the incentive subject of the smart development of higher education management is still mainly colleges and universities. Due to the lack of sufficient financial and technical support, colleges and universities cannot make full use of advanced information technology to carry out smart management, and the incentive role of various subjects such as teachers and students cannot be effectively played, which is not conducive to the promotion and practice of smart management. In terms of incentive ways, they are still mainly based on material encouragement, and the form of them is single, which is difficult to meet the spiritual needs of teachers and students.

2 The Significance of the Transformation and Development of Higher Education Management under the Background of Smart Education

2.1 Promote the Reform of Education Modes and Meet the Individual Needs of Students

The transformation and development of higher education management can make use of digital technologies such as big data, cloud computing and artificial intelligence to better understand the individual needs of students and realize personalized teaching. For example, with the help of information technology, colleges and universities can find students' learning needs for certain courses in a timely manner, and make personalized adjustments to curriculum design and extra-curricular resource allocation for students through the network, digital resource library and open course platform, so as to meet students' learning needs and enhance their learning motivation.

Educational administrators can also use information means to grasp the learning progress of students, so as to adjust teaching strategies in time, teach students according to their aptitude, provide targeted guidance for students, and make each student perform at their best level. At the same time, colleges and universities can timely pay attention to the learning experience and life needs of students through smart campus construction, and provide extracurricular activity information, mental health counseling and other services, in order to provide more resource support and care for students, and promote their all-round development.

2.2 Improve Teachers' Digital Quality and Optimize the Level of Teaching Service

Teachers of colleges and universities can make full use of cloud service platforms, big data analysis and other technologies to improve their own quality, optimize the level of teaching service, and meet the diversified learning needs of students^[4]. In the context of the comprehensive application of modern information technology in the field of education, cloud service platforms can provide teachers with various teaching resources and flexible teaching tools, so that teachers can access and learn the latest educational resources at any time, broaden their knowledge and update their professional knowledge. At the same time, teachers can also make use of rich online training, education resource library, etc., to obtain the latest education trends, and learn from the excellent teaching experience of other schools, thus gradually improving their professional skills, teaching ability and education service level.

2.3 Integrate High-quality Education Resources and Realize Resource Co-construction and Sharing

The problem of unbalanced education resources still exists because of the differences of regional, economic conditions and educational institutions' own resources. By information technology, higher education administrators can build an integrated online education platform to systematically integrate high-quality education resources to make students obtain high-quality education resources through the Internet, and can effectively optimize resource allocation to promote the co-construction and sharing of education resources in different regions and under different conditions. At the same time, education administrators can also use the data analysis function on the online education platform to understand the use of resources in detail and accurately. After in-depth analysis of the data, they can adjust the teaching resources, avoid the waste of resources on the basis of optimizing resource allocation, and maximize the utility of resources.

3 The Paths of Transformation and Development of Higher Education Management under the Background of Smart Education

3.1 Establish the Concept of Smart Education Management and Promote the Innovation and Development of Higher Education Management

Education administrators should establish a service-oriented concept, change the traditional management mode of conveying instructions from top to bottom, use advanced information technology to collect the needs of teachers and students in learning and life, and then provide targeted services for students and teachers. At the same time, education administrators need to break the traditional and rigid management level, create an equal communication platform, strengthen the interaction between teachers and students, and encourage teachers and students to express opinions on the platform. In this way, education administrators can not only better

understand the needs of teachers and students, but also effectively integrate the opinions of all parties to improve the scientific and targeted nature of management decisions. In addition, education administrators in colleges and universities should establish a people-oriented management concept and devote themselves to serving students' learning and teachers' teaching. Education administrators in colleges and universities should encourage teachers to explore diversified and personalized teaching methods with a more open and inclusive attitude. For example, education administrators change the classroom layout, and transform the traditional "seedling" classroom into a symmetrical, multi-group round-table design of smart learning classroom through flipped classroom, project-based learning and other teaching models, to provide students with a more open and inclusive learning environment, and stimulate their enthusiasm for learning^[5].

3.2 Establish a Diversified Evaluation System and Improve the Effectiveness of Higher Education Transformation and Development

Under the background of smart education, in order to achieve better transformation and development of higher education management, it is necessary to change the traditional assessment and evaluation methods, and build a diversified evaluation system to expand the single evaluation of the knowledge mastery to a comprehensive evaluation of students' comprehensive development. For example, colleges and universities can collect the data of students' performance in the learning process through the cloud evaluation system, and use the analysis results as an important basis for evaluating the learning effectiveness, to help teachers and students understand the advantages and disadvantages in the learning process. In the evaluation of teachers' teaching, the establishment of a diversified evaluation system can not only cover teachers' teaching results, but also comprehensively evaluate the innovation of teachers' teaching methods, the construction of teaching environment, and the cultivation of students' abilities^[5]. When evaluating administrators, colleges and universities can adopt the cloud evaluation system to collect the daily work performance and quality of administrators, generate quantitative evaluation results, and increase the objectivity and real-time performance of evaluation.

3.3 Deepen the Reform of the Education System and Mechanism and Ensure the Steady and Long-Term Transformation and Development of Higher Education Management

Deepening the reform of the education system and mechanism and building a sound system guarantee mechanism are the keys to continuously optimize and improve the efficiency and decision-making ability of education management in colleges and universities with the help of modern information technologies such as big data and cloud computing. Colleges and universities can introduce relevant policy guarantee mechanisms, formulate differentiated material and spiritual incentive mechanisms, and encourage students to put forward creative ideas and suggestions in smart campus management and technological innovation to guide teachers, students and other subjects to actively participate in the smart development process of education management. Meanwhile, they can increase special investment in smart education management projects to facilitate all parties to obtain more high-quality education resources in the process of smart education management. At the same time, colleges and universities should strengthen the training of information technology ability to effectively improve the application ability of information technology for teachers and students, thus better adapting to and making use of the opportunities brought by smart education.

4 Conclusion

In the context of smart education, the transformation and development of higher education management is an inevitable trend of education development in the new era. Colleges and universities should pay more attention to cultivating students' individual needs, create a more open and inclusive education environment, provide a solid institutional guarantee for teachers and students, and actively explore the path of innovation in higher education management.

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