

INFORMATIZATION CONSTRUCTION AND INNOVATION PRACTICE OF UNIVERSITY EDUCATION MANAGEMENT UNDER THE BACKGROUND OF INTERNET

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ABSTRACT

In the Internet era, the process of social collective informatization has been significantly accelerated. As a key bridge connecting the society and talents, colleges and universities' promoting the informatization of university education management can bring considerable value and significance to the construction of talents and scientific research management in colleges and universities. However, with the rapid iteration and update of Internet information technology, the construction and practice of education management in universities have encountered many obstacles and difficulties. In this paper, we will use the literature review method, case analysis method, questionnaire survey method to study the Internet background of university education management information construction and innovation practice status, existing problems and solutions, This paper analyzes the current situation of academic research on the information construction and innovation practice of colleges and abroad by using the literature review method, And integrate, summarize and summarize the relevant theories of university education management information construction; The case analysis method and questionnaire survey method will be the current research and analysis of M university education management information construction and innovation practice from the stage of information facilities construction, information education resources and application, management information practice of three aspects, Through the research, we can find out the current five problems in the information management of M universities, including insufficient cognition, insufficient system planning, insufficient internal information sharing, insufficient collaborative innovation and insufficient management practice, At the end of the study, reference suggestions are put forward based on the problems of education management informatization in M universities.

Keywords: Internet, University Education Management, Information Construction, Innovation Practice

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INTRODUCTION

In 2014, after the concept of Internet + was first put forward, the Internet industry opened the road of industrial integration, and the Internet technology, as a tool, entered the collaborative innovation and development of various industries^[1]. At the same time, with the support of Internet technology, other industries have quickly entered the road of information development, and the education industry has also participated in the innovation of Internet technology, and made major innovations and breakthroughs in the field of Internet + education. In 2012, after the Ministry of Education, the policy reform process was officially implemented.” A series of policies of the intensive implementation of education and teaching information work, the department of Science and technology and information technology since 2022, the monthly summary of education information and network security education work status quo, in order to effectively urge the local to continue to promote the education information work.

In recent years, the development of the information construction of university education management, in addition to the necessity of industrial integration between Internet + and education and the continuous promotion of the Ministry of Education policies, the development of university education and teaching management itself is also facing an urgent reform. Colleges and universities as the core of social talent training center, in the education teaching work must be lead, facing the urgent pressure of enrollment scale and talent demand, with the help of efficient management level and management mode can promote college education management from traditional to innovation, depth fusion information technology can promote college education management efficiency is improved. However, although the education and teaching management of colleges and universities in some colleges and universities has been continuously promoted by policies, there are still deficiencies in the practical level. The information-based education and teaching management mode can provide college teachers and students with more abundant academic and educational resources, promote the construction of a good interactive educational communication platform between teachers and students, and facilitate teachers to efficiently, digitize and visually manage students' information^[2].

Although the current information management has been in colleges and universities to promotion and application, but from the realistic level, college education management information work system planning, information management mechanism and structure design is still difficult to clarify in reality, such as the university administrative department of information management liability allocation mechanism, teachers and students in the information management data sharing, communication platform construction mechanism lead to truly effective for college teachers and students to provide management information construction effective support. With the continuous expansion of enrollment scale and management requirements gradually upgrading, how real construction in colleges and universities can play the practical function of information education teaching management system, and can innovation practice the concept of various forms of education, has become under the background of the Internet and the innovation practice work, this paper in this context, with M university for case, depth analysis M university in education problems in the information management practice, and try to be in the form of case to analyze and solve other have similar colleges and universities information management problems.

LITERATURE REVIEWS

Status of Domestic Research

In the context of China's Internet, information technology has a long development cycle, so the relevant academic research is relatively rich, and there are also many academic research contents and directions related to education management informatization in Chinese universities.

currently, The academic research directions of information technology and the integrated development of universities are relatively diverse, Different ways and theories of information technology is applied in different levels of university management, For example, the application research of information technology and financial management in universities, Chen Wei (2020) noted in his study, After the application of information technology in university finance, Be able to classify traditional finance into accounting, budget management, fee management and other modules, The modular management form can stimulate the clarity of university financial accounts, Promote the information reform of university finance.

Status of Foreign Research

The overall advantages of the development of Internet-related technologies abroad are more significant than those of some countries, and the application of Internet technology has also taken the lead in the forefront of the world. Therefore, the academic research in the application fields related to Internet technology is relatively rich, and the content and direction are also relatively rich. There are differences between China and other countries in the relevant practical experience of education management informatization construction. At the same time, the process of informatization and university education management informatization determines the differences in its research direction and research content.

Baran, Kilic (2010) investigated the results of the technology use profile of Turkish college students and their ideas about distance education. The study sample was 6504 students from four Turkish universities. The research results have five main parts: 1) demographic information of the sample, 2) Internet and computer use opportunities of the sample; 3) computer skills of the sample, 4) learning style of the sample; 5) thinking based on Internet distance education. The results showed that 38% of the students had home computers connected to the Internet, and 64%, 53% and 30% of them worked in areas outside their residence. In addition, the learning environment intervened with students' basic attitudes towards distance education.

RESEARCH METHODOLOGY

Introduction to the Study Methods

1) Population and sample

In order to carry out the basic situation of the subject of “university education management informatization construction”, based on the thorough extension practice of university education management informatization construction, the theoretical content and interactive practice and theoretical content of university education management informatization, the opinions on the development and construction of university education management informatization. In the study, the M university was selected as the research case, and through the general situation of the case university, the problems in the information construction of education management in M university were found, and solutions were put forward.

2) Data collection

For further understanding of the basic development of M university education management information construction, will use questionnaire + case research method, in-depth analysis of M university education management informatization construction of infrastructure construction, information construction of comprehensive resources and application, information management and innovation practice comprehensive three levels of problems. The survey was mainly aimed at students, teachers and administrators of M universities. The main form of questionnaire survey is online questionnaire survey. A total of 310 questionnaires were distributed through the online questionnaire, and 301 questionnaires were recovered. The effective recovery rate of questionnaires was 97.1%. Among the 301 questionnaires, 258 students, 27 teachers and 17 administrative administrators. Through the analysis and summary

of the research data, the basic situation of the current education management information in M universities is understood.

3) Data analysis

In order to test the validity and reliability of the questionnaire of education management information construction and innovation survey in M universities, the questionnaire reliability and validity test will be tested. The result of the questionnaire reliability test of university education management information construction and innovation practice is the Klang Baha coefficient is 0, which represents the high reliability; the questionnaire validity test of university education management information construction is the structural validity, and the validity results are shown in Table 1. From the KMO test, the test value is 0.70, the Chi-square statistical value of spherical test is 1533.41, the statistical sig = 0.000, which is 0.01, less than 0.01, representing significant correlation between various variables, and the questionnaire validity is good..87

Table 1 Validity test results of the M University education management information construction and innovation survey questionnaire

	Sample a sufficient degree of the Kaiser-Meyer-Olkin metric	.700
The sphericity test of the Bartlett	Approximate chi square	1533.41
	df	121
	Sig.	0.000

Current Situation of Education Management Information Construction and Innovation Practice, Taking M University as an Example

By constructing the questionnaire on the information construction and innovation practice of education management in M universities, the information construction of M universities is systematically analyzed and analyzed from three levels of infrastructure construction, comprehensive resources and application of information construction, and comprehensive situation of information management and innovation practice.

M university Infrastructure Construction

University education management informatization work is the premise of supporting and affordable infrastructure, at present the overall university education informatization of the degree of advancement, the computer number of the overall coverage, promote university management informatization work, university education management information work to introduce the campus network, college multimedia classroom construction and campus one card service, research will also be introduced from the above three levels M university education management informatization infrastructure construction work of the present situation.

1) Campus network construction situation

At present, the campus network operation service providers of M universities are mainly telecom and mobile. At present, the whole region wireless network has been covered in the libraries, teaching areas and teachers' office areas of M universities, but the public wireless network is not covered in student apartments and campus leisure facilities (such as cafes and restaurants). Based on the investigation of students, it can be seen that the public teaching areas of M universities basically realize wireless network coverage, but in the students' dormitory area and the student leisure area, students need to realize the network coverage within the dormitory through the signing of the network operator agreement.

To test the quality of campus network construction, to the campus network coverage quality (signal strength) satisfaction for the research content, the research group according to the students, teachers, finally get the results as shown in figure 1, is evident from the figure,

students generally to the campus network coverage quality satisfaction is low, remain between general satisfaction and less satisfaction, teachers of campus network coverage quality satisfaction on the overall high side.

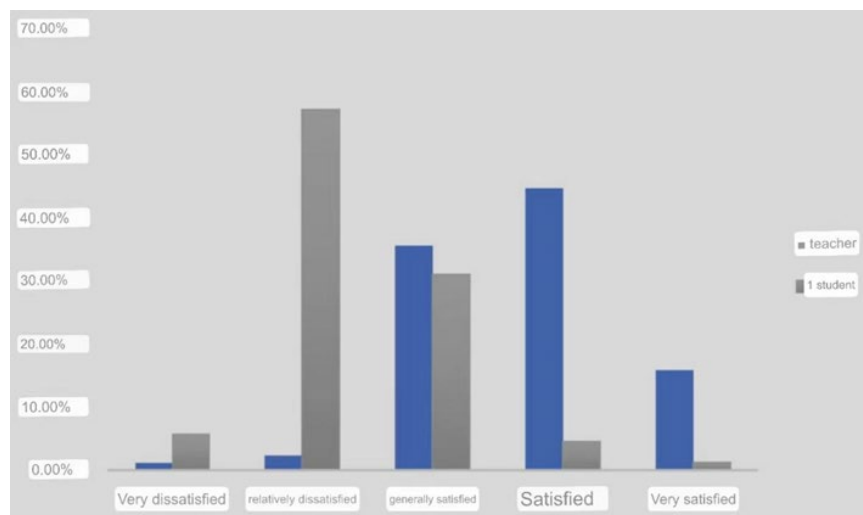


Figure 1 M Statistics of campus network coverage quality survey

2) Construction of multimedia facilities in school M classrooms

At present, the basic configuration of multimedia information equipment in M universities is divided according to the teaching office area. 85% of the classrooms in colleges and universities are equipped with multimedia equipment, and teachers can start the multimedia teaching work at any time. The remaining 15% of the classroom due to the excessive teaching office area aging or office has humanistic value to school, not configured multimedia teaching equipment, general college students class content will rotate according to the course requirements, each college students each semester in different classroom courses, usually in general equipped with multimedia equipment in the classroom course.

For further research of M university multimedia classroom usage, respectively, to the use of multimedia equipment research, as shown in figure 2, it can be seen from the figure, teachers and students involved in the research of multimedia teachers usage research results is consistent, teachers and students basically agree that the overall usage of multimedia equipment, in a medium level.

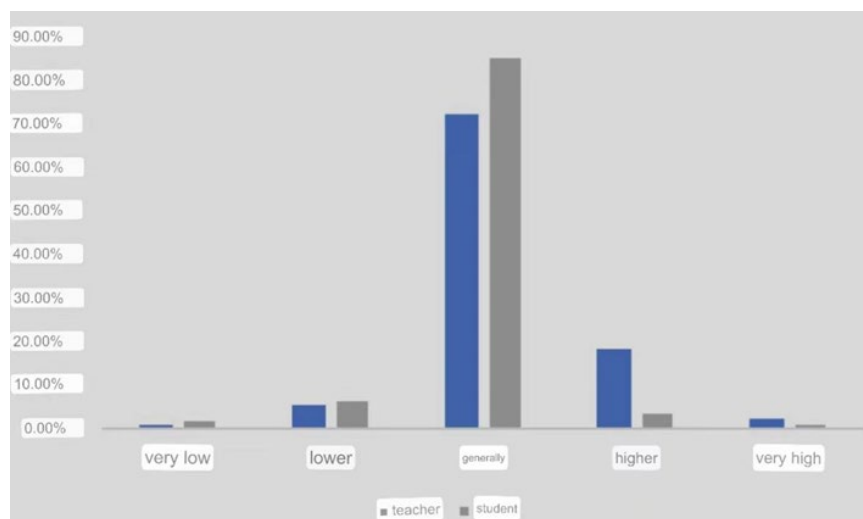


Figure 2 Statistics of the survey results of multimedia classroom use in school M

3) Construction of campus one-card in M School

At present, M campus all students and teachers are equipped with campus one card, at present M campus one card can realize the basic dining function, the function of library borrowing function, dormitory entrance guard, shopping card function, water card, student id function, course function, faculty card function, at present campus one card basic can cover students produce basic daily life function.

M Comprehensive Resources and Application of University Education Management Information Construction

At present, will be coronavirus has swept through and affect the students normal daily study and life, the combination of information technology and education resources has become a reality education force majeure adversity inevitable options, informatization and education resources, teaching methods change also prompted multiple new teaching mode, and help solve the uneven distribution of education resources in our country, teaching funds cannot effectively popularize. Especially in recent years, the impact of the epidemic has accelerated the comprehensive management and application of educational resources. M universities also actively cater to the social and environmental changes, launching online courses and MOON courses.

1) Digital library

In order to carry out teaching for college students in the epidemic environment, In recent years, M University has developed a digital library to provide university teachers and students with a digital library platform with university internal digital information resources as the carrier, Comprehensive construction situation of M university digital library, At present, there are still restrictions on the overall resource coverage scope of M university digital library, In general, it can be divided into the following situations: 1) The paper resources and materials in M university libraries are not converted into electronic versions, Reviewing some offline library books cannot adopt the digital mode; 2) Resource types are not abundant, At present, the lack of foreign language academic materials, books, etc.; 3) Students' access to digital library and the number of articles, A student can only download two pieces of content in a day.

Students, teachers to M university digital library use to evaluate the degree of satisfaction, students and teachers overall feeling gap, students to the digital library satisfaction overall low, but teachers 'satisfaction of the digital library overall is medium, the main reason is that the digital library number of teachers' literature download does not exist limit, at the same time no access to book content.

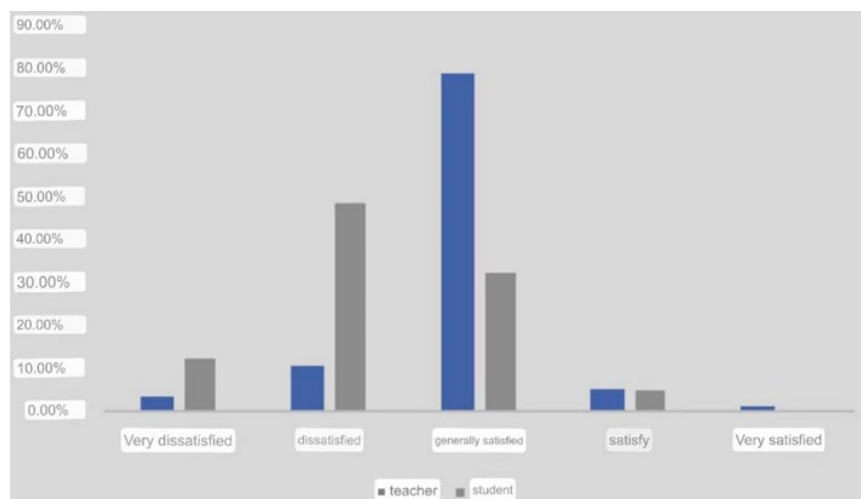


Figure 3 M Statistics on the use satisfaction degree of university digital library

2) Digitizing of teaching resources

Investigate the types of digital resources that teachers or students in M universities are often exposed to in the process of teaching or learning, It can be seen that although there are obvious differences in the frequency of different types of digital resources, However, there are many types of digital resources used by university teachers, These include micro-lessons, video teaching, PPT, MOOCs, teaching software, test questions, cases and so on, Among them, the top three digital resources with the highest contact frequency of teachers and students participating in the survey were: PPT (97.8%), video teaching (91.6%), micro class (67.6%), The types of digital resources not frequently used by teachers and students participating in the survey were MOOC (15.6%), cases (31.2%), and teaching software (9.5%).

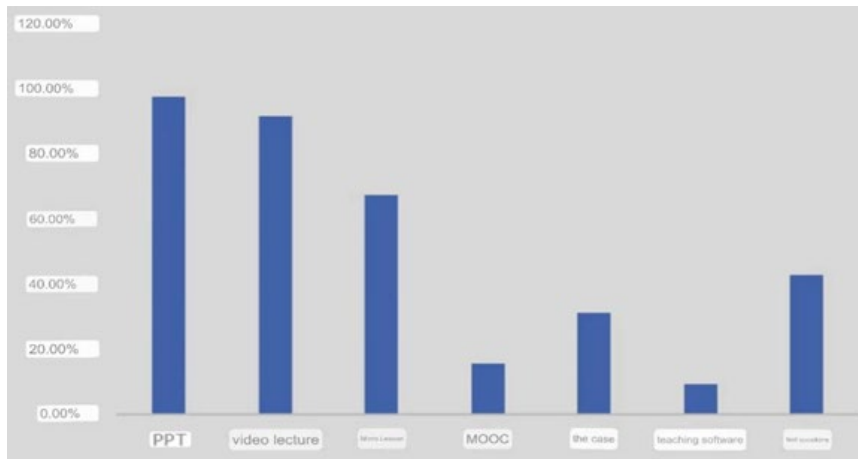


Figure 4 M Research on the digital use / learning of teaching resources among university teachers and students

In addition to the digital use of teaching resources, the M universities also developed the network learning space. At present, the network learning space mainly focuses on the system built by the M universities for intensive training for students' learning, mainly using the network examination system, the utilization rate is 93%. From the survey of the teaching resources production system, only 15% of teachers have used the teacher resource production system, and only 21% of teachers have used the network teaching and research system. During the epidemic period, teachers are more accustomed to conducting live online courses for students through Tencent Conference. The 17 teachers with the experience in teaching online courses all use Tencent Conference to carry out online teaching.

M university education management information management and innovation practice comprehensive situation

The ultimate performance of university education management information is the system of education information management, M university management informatization construction research work will be from the school information release platform construction, commonly used management system construction, information management organization construction three angles, and M university education management informatization innovation practice in research is set to open topic, teachers, students or administrative workers based on daily teaching, learning or application experience to answer.

RESEARCH RESULTS

The overall idea of the construction of education management information system in M universities is also from the perspective of convenient administrative management, Lack of multi-party benefit mechanism measurement and assessment in the system level construction,

Without actually considering the students' learning dependence demand on the information system, For example, students can generate a personalized class schedule in the education management information system, Complete the registration for on-campus or off-campus activities, Network score query, Use the network to complete the teacher evaluation, In addition to matters closely related to students' studies, At present, M college students cannot complete the online processing of non-academic affairs through the education management information system, Such as student certificate issuance, transcript printing, and so on, For the students, At present, the construction of education management information does not bring the needs of students into the scope of overall management, Students cannot enjoy the personalized information services under the support of information technology; From the teacher's perspective, The M university also did not put the needs of teachers ahead, Form a teaching system based on the realization of teachers' teaching function demands, For example, teachers cannot complete the online evaluation of students through the personalized information system, and teachers cannot complete the personalized network background lesson preparation work, Teachers cannot share topics or teaching resources with other teachers, Teachers cannot discuss the teaching or scientific research issues together through an effective information service system.

Lack of Deep Understanding of Educational Management Information

University education management informatization work cannot from the education management informatization in colleges and universities work the problem, college education management informatization construction essence is the information technology as a tool, build education, comprehensive platform of learning, management, improve the overall quality of education management, finally achieve the modernization of education work is smoothly. In order to correctly understand the subversive revolutionary significance and value of education management information work in the development of education and teaching, it is necessary to plan the long-term goals to be achieved in college education and teaching management from a long-term perspective. But from M university education management informatization construction work of the overall analysis, M university cognition of education management information work lack of long-term thinking and cognition, the advancement of university education management informatization process is basic according to the national development of institutions of higher learning informatization, in college education management information work in the lack of school-based thinking, lack of thinking from university construction subject informatization construction work demand. For this reason, the current information construction of education management in M universities shows the low use frequency of some infrastructure. As a result, although the infrastructure construction in M universities has been basically completed, the waste of educational resources in the practical application link is that the understanding of education management information in M universities is not fully understood.

Insufficient Design of Educational Management Information System

M universities can see from the current basic information system design, including office automation system (OA system), university educational information service system, student information management system, university library information service system, financial system, personnel system, file management system, logistics service system, scientific research information service system, asset management system, a total of ten systems. Ten system is facing the outstanding problem is not formed between good interaction level and system planning, teachers, students, administrative comprehensive usage, the three parties to use the system must be through login form login to different systems, teachers, students and administrative managers in the exchange of information or opinions, unable to really efficient through information channels through internal communication barriers in colleges and universities. At the same time, the informatization of education management in colleges and

universities itself is a systematic work. Only the effective cooperation of information in the management process can tap the potential of information management, which can really give full play to the value of education management informatization in colleges and universities. However, at present, M universities do not have mutual cooperation, and there is a gap in the promotion process of version update and maintenance.

Poor Application Awareness of Innovation Practice

University education informatization management from the national education level, is to guarantee our country's future talent training to be more accurate, scientific important path, education management informatization construction also means that colleges and universities should earnestly from the perspective of their own practice, teaching advantages, build information system with the characteristics of colleges and universities, in the process of innovation practice is the premise of guarantee the above smoothly. But starting from the innovation practice of M universities, M universities did not carry out the pioneering significance of education information management innovation practice content, collaborative innovation power is weak at present on the basis of education management information production development is weak, cause M universities cannot through education management informatization to strengthen the development of colleges and universities.

And from M university education management informatization dimension of the innovation practice development dimension, university education management innovation practice in education management, student management, scientific research management, information system management and so on all level, innovation practice also depends on the application of advanced innovation practice technology, M university currently lack of innovation practice technology support, the enthusiasm of the innovation practice.

To sum up, the present for the case of colleges and universities, education management information construction work in practice has certain experience, at the same time part of the function practice is mature, but based on the early M universities in informatization development lack of macro level thinking, resulting in current M universities in the education management informatization basic problems in the cognitive level, macro architecture level is gathered. In order to correct the problems at the macro level, we can further practice the informatization of university education management in a more innovative direction.

Research from the case of the analysis of colleges and universities is not universal, but some other universities and M compared in the problem level or will have similarity, in order to through the full research for other university education management information construction development provide reference or inspiration, can really boost university education management informatization in our country

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