Study on the Steps and Conditions of Computerization of Teaching Management in Colleges and Universities

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Abstract. With the rapid development of information technology, the educational administration of colleges and universities must set up a set of standardized computer network management and quality service system on the platform of network technology. This is the key to improve the efficiency of school management and ensure the quality of teaching. The operation center of colleges and universities is teaching management, which is directly related to the survival, development and status of a university in the competition of contemporary society. Teaching management, in the final analysis, is the management of comprehensive information resources such as students, teachers' teaching plans, teaching materials and so on. Nowadays, the wide application of computer information processing technology provides a powerful means to improve the teaching management in colleges and universities. At the same time, traditional manual management methods are facing the fate of being eliminated. Therefore, teaching management must be modernized and scientific, and the key is to establish a computer management system to achieve computerization of management. How to conduct teaching management under network conditions, provide students with various relevant information in a timely and effective manner, and establish students and students. At present, in the teaching management of major colleges and universities, it is an urgent task to make good connections between teachers and students.

Keywords: Institutions of Higher Learning, Teaching Management, Steps and Conditions

1. The present situation of computer application in teaching management

With the application of computer office automation and network technology, due to the lack of computer management personnel, there is no substantial progress in the level of scientific research and teaching management in Colleges and universities. In particular, we can see that undergraduate students’ score entry, classification management, transcripts and graduation transcripts, teaching plan arrangement, etc. are filled in manually for many years. There are many disadvantages in this method of manual management: first, the teaching staff working theory system, such as the application of Fox-base and Fox-pro database soft and repetitive work; second, it is easy to make mistakes in data statistics; third, it is not convenient for achievement management and analysis; fourth, it is impossible
to transmit and call data on computer network. Therefore, the use of modern computer management means, teaching management is imperative. At present, the mode and present situation of teaching management adopt simple management means-manual and paper. For a long time, teaching management has been in a simple interaction between people and paper. The main reason for this phenomenon is that the educational background of teaching managers is low, and their working ability and quality are low. They are often only engaged in simple statements, registration, send a variety of scoring analysis. At the same time, the data in the report database is automatically generated according to the needs, so that the managers do not have a thorough understanding of the report and other work, the responsibility of various reports, and the teaching plan. There is no real responsibility for intervention and management. And there is no better and scientific teaching management means and tools, teaching arrangement and management only rely on subjective will [1]. In fact, the correct structure of teaching management is essential. As shown in Figure 1.

![Figure 1. Teaching management structure.](image)

2. **Basic steps in computerized teaching management**

At present, the leaders and managers of many colleges and universities fully realize the importance of using computers for teaching management. Because of the complexity and complexity of teaching management, it involves a wide range of working faces and a large amount of information, such as professional setting. Enrollment, curriculum preparation, student status management examination arrangements, teaching reform. The construction of teaching materials brings difficulties to the initial establishment of computer management system. Therefore, the establishment of computerized teaching management must be carried out step by step on a systematic basis [2]. As shown in figure 2.
2.1. The establishment of computer system in educational administration
In the competition of modern distance education, we should make full use of the advantages of our own system, connect the main work links of educational administration, and gradually establish a computer system. These systems include enrollment management system, student status management system, teaching material management system, teaching plan management system, education certificate management system, etc. In order to gradually bring the basic work of educational administration into computer management and fundamentally change the original traditional manual management mode. This is the most basic in achieving the goal of computerized teaching management. It is also the most important step. At present, some mature computer educational administration software has been developed for reference in colleges and universities. We should move towards the goal of centralizing the teaching management system so that most of the statements of colleges and schools are basically computerized. It includes graduation certificate, degree certificate and so on [3].

2.2. The establishment of computer-aided system in teaching research management
The establishment of computer-aided system in teaching administration is the condition of stabilization and scientization of teaching process. In addition to the above work, it also includes some teaching research work, such as curriculum construction quality point and high-speed evaluation system. Remote open teaching quality evaluation system, professional teaching and learning level evaluation system, standard test questions system, test questions quality division room, multimedia analysis system, graduate tracking evaluation system and so on. These are also real; construction to achieve scientific. It is the basis and key to do a good job of teaching management. Although it is difficult to use computer management, it can greatly improve the efficiency and level of teaching management [4].

2.3. Make full use of its own advantages and establish a complete educational management system
The computer network system in educational administration is established in the competition of modern distance education. We should make full use of the system advantages of practical and national RTVU, and establish the network of computing education and teaching in RTVU system. The whole network should be planned as a whole and rationally distributed, and each network should have its own characteristics and work together. Real. Now the university system distance education information communication, resources sharing. Resource sharing includes: information release, online library, management data teaching, education management library, teaching tutorial courseware. We can transfer files, e-mail parts, electronic bulletins, electronic news, etc., to achieve the upper and lower levels of exploration and practice teaching requirements, teaching arrangements, teaching materials operations, subscriptions, meeting notifications, teaching business processing and other information release. At the same time, we can use the network conditions of high management
efficiency to provide rich book resources to establish teacher information, student information, class information, teaching plans, and course results [5]. For example, figure 3 below shows us the class information table of students managed by computer, which contains their class number, class minimum score, school number, college number. This is the simple use of computerized teaching management performance.

Figure 3. Teaching management class information table.

3. The foundation of computerized teaching management

3.1. Strengthen the computer application ability of teaching managers
In view of the fact that the educational level of teaching managers is not high and the ability of computer application is uneven, the teaching managers are first trained in computer application ability, including the basic computer operation ability and the use of basic application software. It is a key to realize the computerization of teaching management and to develop computer teaching management software, but it is also necessary to improve the quality of managers, which requires them not only to understand the relevant knowledge of teaching management. And also need to master computer professional knowledge. Therefore, it is better for the teaching management department to be equipped with some computer professional management personnel, or the joint school information center, computer center and other units to jointly develop teaching management applications. It is necessary to train teaching managers, including the improvement of management and the lack of substantial changes in computer teaching management, such as the ability of college students, and to supplement the management performance table with a bachelor's degree. Now it's just a computer, no one to the teaching management position.

3.2. Update computer equipment, select excellent development platform
The operation of application software cannot be separated from system software. Chinese character operating system. Word processing software and database system software are both supporting systems for information processing and processing, and are also essential configurations for computer teaching management. The update of computer hardware is a necessary condition, and the old machine is difficult to meet the new operating system. At present, all kinds of old-fashioned computers cannot meet this requirement, so we should first solve the problem of computer system configuration in colleges and universities.

3.3. Establishment of a professional teaching plan management and planning system
To make strict and strict regulations and regulations in teaching management, such as establishing regulations on student status management and student achievement assessment. The evaluation index system of classroom teaching quality makes the computer teaching management system follow the rules, have the law to abide by, and realize the standardization of management. The system replaces the simple table with no statistical analysis function in the past. In the past, the workload of planning and modifying course hours is large and error-prone. Often cause the school hours statistical arrangement is not scientific. The application of the teaching plan management system brings great convenience to the teaching planning and statistics. In use, we find out the problems in the arrangement of school hours and modify them in time, and can accurately control the total number of
school hours. Strictly limit the hours of study [6].

3.4. Development of harmonized data codes and establishment of basic databases
Teaching management is essentially the management of all kinds of teaching information data, and the work of teaching management is complementary and interrelated, and it is an organic collection of information processing. The use of computer for teaching management is mainly to deal with the relationship between all kinds of teaching information data, so that the computer system of each work can be well coordinated and unified to achieve the purpose of high efficiency and high quality teaching management. To this end, should be compiled unified data code, such as: Department of professional code, student number code. Course number code and so on, as well as the establishment of basic teaching database, these databases include: student basic situation database, teacher database, curriculum database, teaching plan database. Student performance database, textbook database. Question bank, etc. It can not only reduce many unnecessary repeated data input, but also ensure the standardization and integration of computer teaching management system, and also lay a reliable foundation for realizing network resource sharing on the basis of computerization of teaching management in the future.

Design and compile statistical analysis of teachers' teaching workload and payment distribution table. It is very important to input the choice of each teacher's curriculum and platform in the statistical table, which takes into account many factors. The planned hours of the experiment and the number of classes or groups, such as the use of good environment. The table is easy to develop, easy to use, powerful teachers, clear class fees of schools and colleges. It can automatically calculate the class or group hours, and accurately count the excellent special subjects of each teacher. It can reasonably allocate the teaching workload and teaching costs, and bring great convenience to teachers and students.

3.5. Design various statistical reports, gradually to achieve office paperless
The era before teaching management can be said to be the information age or the means and tools of the network age. Teaching arrangement and management only rely on subjective will. The modernization and paperless teaching management must be based on the network system. At present, the OFFICE office system developed by Microsoft is powerful and easy to use. Taking this as the development platform, it can achieve twice the result with half the effort, and it is easy to realize the data networking, and finally realize the paperless office.

4. Conclusion
To sum up, establish a set of teaching under the network conditions. It also lays a reliable foundation for the establishment of educational administration management system in the network system of teaching educational administration management, which can make every university realize the sharing of resources with each other. The unified educational administration personnel will be organically combined, through full investigation, data code, such as professional code, teaching plan code, curriculum development software system really serve the actual work. It can not only reduce many unnecessary duplicate data input, but also continuously improve and maintain the computer teaching administration management system.

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