Research and Analysis on the Construction of College Teaching Material Management Information System in the Age of "Internet +"

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ABSTRACT. *As one of the basic components of college teaching management, the management level of school teaching materials is closely related to the overall management efficiency and quality. However, the management of school teaching materials is different from other management tasks. The management of teaching materials is characterized by high complexity, low information content, and low level of intelligence. It is not suitable for the modern educational environment and development speed. Therefore, it is particularly important to establish a teaching material management system that is compatible with the actual situation of colleges and universities.The article mainly focuses on the in-depth analysis of the status quo of information management of college teaching materials, and attempts to construct teaching material management information system from the selection of teaching materials, the ordering of teaching materials, the distribution of teaching materials, the storage of teaching materials, and the delivery of teaching materials. In order to achieve the complete release of traditional manual management, fundamentally promote the improvement of management efficiency.*

KEYWORDS: *"Internet +" era; colleges and universities; teaching material management; information systems; construction research;*

1. Analysis on the current situation of informatization of teaching material management in colleges and universities

With the continuous deepening of the national education system innovation reform, the status and role of teaching management in the development of colleges and universities has become increasingly prominent. Teaching material management is one of the basic management contents, and the quality of its work directly affects the overall development level of universities. However, due to the differences between regions, the degree of informatization of teaching material management in colleges and universities is uneven. The management of traditional manual methods still plays a role in all aspects, especially the work of teaching material ordering, teaching materials out of the warehouse, and teaching materials into the warehouse.

It is cumbersome and requires a lot of manpower and material resources, and it cannot guarantee the ideal work efficiency. Specifically in the following two aspects:

On the one hand, the informatization construction of teaching materials management has been seriously ignored. The daily work of relevant personnel focuses on the statistics and production of various forms of data, and lacks the determination to introduce information technology in terms of work patterns;

On the other hand, the market has not yet developed software based on teaching material management systems. Due to the differences in management mode and selection mode of school teaching materials, even if the school has introduced relevant teaching material management software, it still cannot fundamentally meet various needs. Therefore, it is particularly important to speed up the construction of information management in college teaching materials [1].

2. The system module design and its function

2.1 Selection of teaching materials

In the process of selecting teaching materials, the tradition is mainly based on manual reporting. Each department has already confirmed the teaching materials to the Academic Affairs Office. The Academic Affairs Office will provide detailed feedback to the booksellers after collecting detailed teaching materials. The drawbacks of this teaching material selection model are:

First, the course is underreported. For some of the courses listed in the start-up plan, the teacher did not select the teaching materials, and this phenomenon was mainly formed by the one-sidedness of the teaching material management personnel on the courses offered, resulting in no teaching materials for students to start school.

Second, the quantity is wrong. Teachers can independently report the number, level and major of the teaching materials, and there may be errors in the reported items in the actual filing process;

Third, declare the problem. The school did not reach a consensus on the enrollment of elective materials. Some departments have unified the application of elective materials. Since the teaching material selection form does not specify the nature of the course, the teaching material management personnel cannot judge the nature of the teaching material, resulting in errors in the distribution of teaching materials.

Therefore, as the primary task of teaching material management, speed up the completion of information innovation and construction of the selection of teaching materials, which is conducive to the smooth development of follow-up work to some extent. The specific innovative design ideas are as follows:

1) In the process of selecting teaching materials, the faculty is regarded as the

unit as a whole, and the selected teaching materials are uniformly entered, and the department and the Academic Affairs Office will conduct double approval.

2) Accelerate the in-depth connection between the teaching material system and the educational management system, and introduce the class opening plan directly in the teaching material management system to clarify the number of courses, professional standards and number of students.

3) Timely report the relevant information of the teaching materials. After completing the information selection of the teaching materials, the accuracy must be confirmed, and the person in charge of the college should review it. After the review is correct, the PDF form will be exported and submitted to the Academic Affairs Office for archiving [2].

2.2 Teaching material subscription

In the process of comprehensively summarizing the selection of teaching materials generated by each department and providing the book purchase volume to the book suppliers, two issues should be paid attention to.First, due to the consideration of the quality of books, we should purchase as many books as possible on the basis of the actual demand of each book, so as to avoid the lack of books due to the quality of books. And through years of teaching experience, it is necessary to purchase more teachers' teaching books to adapt to the changes in teaching staff. Second, there is a fundamental difference between the book supplier and the lecture provider. The teaching material management personnel need to separate the two to select the opinions. The implementation of the above two functions needs to be realized by means of related systems. The specific program statements are as follows:

If $(X\%5) = 0 \quad Y = X+5$

else $Y = X+10-(X\%5)$

In the formula:

% -- Residual

If the number of students is an integral multiple of 5, 5 purchases will be added based on the number of students;

If the number of students is not related to the integral multiple of 5, replenishment of purchase quantity is required, which is usually greater than the integral multiple of 5 [3].

2.3 Distributing teaching materials

When entering the new semester, each department should distribute professional teaching materials to students according to different grades and majors. Thecompletion quality of this task directly affects the effectiveness of school

teaching material management. However, due to various aspects of differentiation, such as training programs, teaching materials, and grades or majors, how to accurately distribute the materials to each student within the required time has become a core issue in colleges and universities. In the past, during the distribution of teaching materials, in order to avoid the occurrence of wrong distribution and missing distribution, the relevant teaching material management personnel need to make a large number of forms by manual means, according to different majors, levels and training plans, corresponding to the selected teaching material information, and then list the required distribution of teaching materials, After the signatures are confirmed by the special personnel, they will be distributed to the grades through the Academic Affairs Office.

In the design process of the teaching material management information system, the teaching material selection related departments, majors, grades, classes, etc. are connected with the teaching material information. The system generates the teaching material form systematically through the effective combination with the actual situation of the teaching material selected and reported by the departments, and prints out the receiving forms of the departments, grades and even classes.In this way, the collection of the classes in the process of distributing the teaching materials is clear at a glance.Moreover, due to the direct introduction of the number of students in the educational system, it is possible to effectively clarify the number of classes to be issued, and minimize the occurrence of wrong, multiple and missed distribution of teaching materials in the process of distribution.

2.4 Teaching materials into the warehouse

In general, the determination and export of the purchase quantity of teaching materials are mainly based on the statistics of educational administration system, and some of the teaching materials with changes can be adjusted and optimized through the actual storage of teaching materials, so as to effectively improve the overall efficiency of the storage of teaching materials.At the same time, the teaching material management information system is equipped with the corresponding document printing function, and designed with the standard report form of the teaching material stock in document. The bookseller can make the document according to the relevant requirements of the school standard report form, and then directly import the data accurately, so as to realize the effective generation of the teaching material stock in document.

2.5 Teaching materials out of the warehouse

Compared with other links, the outbound of teaching materials is the most complicated link in the whole teaching material management. Because the input content covers every major or even class that selects corresponding teaching materials, it is a time-consuming and laborious work. The main purpose of the early design of teaching material management information system is to minimize the total amount of work of teaching material management personnel in this link. It is

necessary to fill in the unit price information of teaching materials on the documents of the delivery of teaching materials. How to realize the effective correspondence between the basic information of teaching materials and the settlement list of the supplier's teaching materials in the teaching material management information system and effectively update the unit price information of teaching materials has become the core task of the system design. If the problem is effectively solved and the accurate correspondence between the two parties in terms of unit price information is realized, the efficiency of teaching material delivery will be comprehensively improved [4].

Through the analysis of the above links, it is found that the only one that keeps the information unchanged is ISBN, which can effectively match the system teaching material information and supplier settlement information. Among them, it is worth noting that there may be inconsistencies in the system when applying for the number of teaching materials for the same course, which may cause that the teaching material and ISBN number in the system cannot correspond, the price information related to the teaching material is not updated in time, and it still needs to be completed manually. For the situation that the price of some teaching materials in the system has not been updated in time, the school should purchase the teaching materials through the relevant suppliers, and then modify the information of the actual purchase of teaching materials in the system. It is necessary to change the book title, ISBN number, unit price and other basic information of the actual purchased teaching materials until all teaching materials in the system have accurate price information. This system greatly shortens the storage time of teaching materials.

3. Conclusion

To sum up, the construction and application of the teaching material management information system in the teaching management of colleges and universities has promoted the overall efficiency and quality improvement of the school management work. With the gradual infiltration of "Internet +" technology in the educational field, the relevant staff engaged in teaching material management in Colleges and Universities should start from their own point of view, and constantly improve their theoretical knowledge and professional literacy level. To keep pace with the development of modern education. By using the advanced technology of campus network in Colleges and universities, we can develop the teaching material information management system, save the school's excessive expenses in human resources, and better meet the needs of all kinds of personnel for teaching material information management.

Acknowledgements

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