

Research on the Teaching Reform of Higher Vocational Financial Management Course with the Application of Big Data

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Abstract: With continuous development of modern big data technology, higher vocational financial management teachers should actively seek ways and means of reform. Teaching reform of higher vocational financial management course can be done by integrating modern teaching, understanding the students' academic performance, and comprehensively transforming the teaching methods. These methods can optimize and ensure the comprehensive quality of students, and improve the quality of higher vocational financial management course.

Keywords: Big data; Higher vocational financial management course; Teaching reform

Online publication: August 24, 2023

1. Effects of big data on the reform of financial management course

1.1. More targeted course reform

With the application of big data, a comprehensive reform and optimization of the financial course can define the direction of future reform. Financial management has better applicability and practicality compared with other courses. Financial management teachers must have practical skills and basic financial knowledge, to ensure their overall work effectiveness. Big data can help in the processing and analysis of financial information, which is beneficial to higher vocational colleges in conducting targeted teaching work, thus forming a comprehensive and rich talent training program ^[1]. At the same time, big data technology can help in understanding the fundamental requirements for financial managers in modern society. Through corresponding comparison and analysis, the main points in modern financial management course including the overall teaching content can be understood, which helps to define the future direction of teaching ^[2].

1.2. Increased effectiveness of course reform

Judging from the current market research and the feedback of enterprises, there is still a big discrepancy between the financial management course in our country and market demand, which cannot meet the needs of current employers. Big data affects the effectiveness of financial management course reform. For example,

higher vocational colleges should use big data technology in modern course reform to comprehensively analyze students' abilities, and to meet the needs of course reform. Effective integration of big data in the course can help schools to formulate scientific and appropriate teaching plans, in order to achieve the teaching objectives. In addition, big data can also direct the development of financial management course in vocational colleges and ensure the targeted reform. The use of big data technology can improve course reform and provide guidance for teachers in teaching ^[3].

2. Analysis of the main measures of teaching reform

2.1. Having clear course objectives

Teaching financial management course in modern higher vocational colleges faces problems such as unclear teaching objectives and imperfect curriculum systems. The method for learning assessment is relatively simple, which is impossible to comprehensively evaluate students' learning abilities. Although some students have relatively high grades in school, they face difficulties in meeting the basic requirements in real-life practice, thus affecting their learning effect. Financial management is a systematic process, in which the professional skills in different positions are required. Higher vocational colleges fail to understand the differences in financial management positions, and the methods adopted for students' assessment cannot evaluate students' abilities in all aspects. In modern course reform, clear and appropriate course objectives must be set, and the relevant curriculum system must be improved by considering the primary needs of modern society ^[4]. To help students in building a knowledge system, it is necessary to design a scientific and reasonable curriculum system guided by scientific theories. Consequently, students can enter the workforce smoothly and lay a solid foundation for subsequent work. In course design, teachers should increase the practical proportion, and integrate theory with practice to fulfill the requirements of being financial managers ^[5].

2.2. Improving the curriculum system

In modern teaching reform, the ultimate goal of higher vocational colleges is to cultivate high-quality and high-level talents. If students' learning is inconsistent with the fundamental requirements of the enterprise, the students are unable to play their role and bring values to the enterprise. In the process of teaching reform, teachers should understand the specific requirements of employers, and analyze the basic requirements of financial personnel in various industries in an all-round way based on big data technology. Subsequently, relevant courses can be set up in a targeted manner to ensure effective teaching ^[6]. At the same time, higher vocational colleges also need to enhance the innovation of various systems. This can be done by improving the relevant curriculum system, highlighting the characteristics of financial personnel, and ensuring the professionalism and management of financial personnel. In addition, higher vocational colleges also need to fully recognize the deficiencies in the modern financial management system, guide students to analyze and solve problems based on actual situations, and enhance students' comprehension ^[7].

2.3. Using information technology in teaching

In teaching reform, teachers should utilize modern information technology to optimize and transform teaching activities, so as to improve the overall teaching quality. At present, network technology and information technology are widely used in all walks of life. Vocational colleges should actively use information technology to ensure the flexibility and effectiveness of teaching. Teachers can record related videos to encourage students to learn at any time anywhere, and carry out smart learning activities. Micro-teaching can break the limitations of online and offline teaching, actively expand students' knowledge, and strengthen students'

subjective initiative^[8]. In modern teaching reform, teachers and students rely on information exchange platform to communicate efficiently. Students can ask questions at any time, and teachers can patiently answer their questions to eliminate doubts. This form of teaching is not limited by time and space, which enhances the teaching effectiveness^[9].

2.4. Developing a suitable assessment method

To reform the curriculum, big data technology can help to develop suitable assessment methods. The traditional “fraction-only theory” can no longer meet the requirements of modern teaching reform, thus higher vocational colleges should adopt more scientific and effective evaluation methods to assess students’ learning progress^[10]. Teachers should focus on assessing students’ learning progress, including learning outcomes and participation in classroom activities. In students’ evaluation, teachers should adopt multiple aspects such as “daily grades and practical skills” to carry out comprehensive assessment^[11]. The evaluation includes students’ performance, daily grades, test scores, and other related parts. Higher vocational colleges need to comprehensively assess students’ daily learning progress, attitudes, and test results, as well as their practical skills. Traditional evaluation method of emphasizing theory and ignoring practice is replaced in order to improve students’ learning enthusiasm^[12].

2.5. Improving students’ professional skills according to the requirements of enterprises

In the reform of financial management course, teachers should enhance the cultivation of students’ practical skills, and modify the teaching activities to ensure students’ competitiveness^[13]. At present, the financial department jobs of most enterprises are becoming more and more specific, including accountants, cashiers, auditors, and other positions, and each person is responsible for different tasks. Therefore, in the process of cultivating students majoring in financial management in higher vocational colleges, it is necessary to ensure the learning focus and help students to determine their future career path^[2]. Higher vocational colleges should formulate a scientific and ideal teaching system, comprehensively evaluate the professional skills of students, and actively understand the main shortcomings of students in the collective learning process. Subsequently, effective scientific measures need to be taken to improve teaching strategies, in order for students to enhance their professional skills, thereby laying a solid foundation for future employment^[14].

2.6. Utilizing big data financial management software

Financial management teaching in higher vocational colleges includes two aspects, namely theory and practice. Theoretical teaching guides students to learn the theoretical knowledge, while practical teaching focuses on cultivating students’ practical skills. Teachers must scientifically apply information technology to reform and optimize their teaching methods. At the same time, they also need to utilize relevant teaching software to build big data platforms or cloud computing experimental platforms. Colleges and universities should integrate big data into existing financial management teaching resources, and understand financial management majors. To meet the needs of students’ personal development, computerized training software, construction and optimization of training rooms, and financial management training are applied in the course. Other than that, it is also necessary to supplement and optimize big data financial management software^[15]. For example, “Yongyou Seentao” is more commonly used in the application of accounting teaching software. In recent years, software companies have also launched other software or teaching platforms. Some examples are the accounting management platform, TTC learning and training integration platform, big data practice teaching platform, and so on. Based on accounting software, teachers should comprehensively integrate different kinds of information, actively carry out relevant practical activities, and strengthen students’ hands-on skills to enhance students’ data analysis skill^[16].

Theoretical and practical teaching of financial management course should be applied equally. Teachers should scientifically use SPOC (Small Private Online Course) and interactive teaching platforms to carry out mixed teaching, and guide students to carry out relevant practical training. The content of students' practical training should be based on important and complex points, and individual and comprehensive training activities should be scientifically designed. Single-line training is mainly based on each knowledge point, and scientific arrangements should be made for relevant funds, to carry out forecasting of project investment cash flow ^[3]. The comprehensive practical training is mainly based on individual training, and the training activities include increasing the professional knowledge of financial management. In the training process, teachers should introduce life-like examples, with application of big data technology and simulation training software. A relevant teaching environment should be created through the comprehensive use of simulation training software, and relevant background information can be provided.

2.7. Encouraging integration between courses

The financial management of most enterprises can no longer be carried out by calculators alone. Higher vocational colleges should understand the characteristics of modern enterprises' financial management, strengthen the application of modern science and technology, and carry out financial management through different software to ensure students' computing skills. Excel course is usually included in modern financial management curriculum. Additionally, teachers have also developed big data application courses. These have provided vitality for the reform of financial management course. Therefore, teachers must actively develop various modules during the process of course reform. The integration between courses can cultivate students' informatization ability and improve their comprehension ^[17].

Taking the Excel course as an example, the calculation course in financial management should be appropriately simplified. For example, the present value can be calculated by the PV function of Excel, and the interest rate and period can be calculated by interpolation method, and the IRR function can be used to directly calculate the internal rate of return on investments. Using the regression analysis in Excel, the value in the prediction of capital utilization can be obtained. For students who already have certain information awareness, the teachers can guide students to learn computer programming language, and apply it in their study. Data collection, collation, and analysis can improve students' comprehension ^[18].

3. Conclusion

With the application of big data, financial management teachers in higher vocational colleges should understand the fundamental requirements for financial management personnel in enterprises. They should also comprehensively reform and optimize financial management course, teach the course through modern thinking, and meet the job requirements. To formulate relevant assessment methods, teachers need to be equipped with relevant financial management teaching software, thereby promoting the all-round development of students.

Disclosure statement

The author declares no conflicts of interest.

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