Exploration of the Teaching Mode of Accounting Information System Course under the Background of Big Data, Intelligentization, Mobile Internet and Cloud Computing

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Abstract: Under the background of the development of Big Data, Intelligentization and Cloud Computing, the teaching reform of accounting information system in universities is imperative. This paper focuses on the problems that arise from the traditional model of teaching an accounting information system course and how the accounting information system program can be reformed in the current background. By introducing Big Data, Intelligentization and Cloud Computing into class, the teaching content and methods of the accounting information system course have been updated and optimized. The new teaching model can not only cultivate students' basic knowledge and skills, but also develop their innovation ability and practical ability, so that they can better adapt to the future of Intelligentization and cloud computing work needs.

Keywords: Accounting Information System; Teaching Mode; Big Data; Intelligentization; Mobile Internet; Cloud Computing

1. Introduction

BIMC is a new technical concept. "B" means big data, "I" represents Intelligentization or artificial intelligence, "M" refers to the mobile Internet and "C" represents cloud computing [1-3]. As shown in Table 1.

Table 1. The Constituent Elements of BIMC

BIMC	Big Data
	Intelligentization
	Mobile Internet
	Cloud Computing

Under this background, the role of financial personnel has also undergone significant changes. In addition to traditional accounting knowledge and skills, they also need to have: data analysis ability, technology application ability, innovative thinking ability, security awareness. These new capabilities require finance staff to not only do their job well, but also to have cross-disciplinary knowledge and skills to adapt to the new requirements in BIMC environment.

The reform of the teaching mode of the Accounting Information System course in the context of BIMC is of great significance.

(1) It adapts to the development trend of the industry. The development of BIMC has profoundly changed the traditional way of accounting work. The reform of the teaching mode in this context can synchronize education with the development trend of the industry and meet the industry's demand for new technologies and new skills.

(2) It enhances the quality and effectiveness of education. The traditional teaching mode often focuses on teaching theoretical knowledge, while BIMC provides richer and more practical teaching means, such as online virtual labs, simulated business operations, etc.. It can enhance students' interest in learning and increase the practicality and interactivity of teaching, thus improving the quality and effectiveness of education.

(3) It cultivates application-oriented talents. This teaching mode reform pays more attention to cultivating students' practical ability and innovation ability, so that students can skillfully use new technologies while mastering accounting professional knowledge. It can produce application-oriented talents that are more in line with the market demand.

(4) It enhances the efficiency of teaching. Using the technologies of BIMC, it can realize the sharing of course resources and improve the utilization efficiency of teaching resources. And it also helps teachers to carry out teaching

management and real-time tracking of students' learning in order to improve teaching efficiency.

2. Problems Presented by the Traditional Teaching Model of Accounting Information System Course

2.1 Without Necessary Competence of Accounting Graduates Cannot Keep Pace with the Latest Market Requirements.

Under the traditional teaching mode, the Accounting Information System course mainly focuses on the cultivation of traditional accounting skills, such as the operation of financial software, financial statement analysis, cost control, etc., while tends to pay insufficient attention to the emerging technologies and their application in accounting, such as big data analysis, cloud computing, artificial intelligence, etc[4]. This makes accounting graduates often seem overwhelmed in the face of emerging accounting technologies and tools.

2.2 Unheralded Advanced Technologies

Advanced technologies and theories such as BIMC are rarely represented in teaching. These technologies have a wide range of applications in the accounting field. For example, big data can help companies deal with massive amounts of financial data and carry out in-depth analysis, artificial intelligence can automate accounting work to improve work efficiency and cloud computing can realize remote storage and access to financial data to provide data security and availability. However, these advanced technologies and theories are not fully paid attention to and taught in the traditional Accounting Information System course, which makes students may encounter difficulties in applying these technologies.

2.3 One-dimensional Teaching Style

In traditional Accounting Information System course, teaching methods tend to focus excessively on specific operational exercises. Teachers show and explain the use of accounting software in class, while students imitate and repeat these operations in or after class. Such teaching methods may result in students just imitating mechanically without really understanding the accounting principles and logic behind the software operations.

Accounting Information System programme is designed to process and manage accounting operations, which are closely and logically related to each other. However, these relationships are often overlooked in traditional course instruction. Individual business modules are often taught in isolation. Students may fail to understand the connections and interactions between the modules and how they work together to affect a company's financial position.

As a result of the over-emphasis on operational exercises, students may not have sufficient opportunities to think about and analyse accounting problems, resulting in a lack of training in problem solving. They may feel overwhelmed when they encounter problems in a real work environment. In addition, due to the lack of opportunities for in-depth understanding and mastery of accounting principles and business logic, students may lack creative thinking and strategies for solving problems when they encounter complex accounting issues.

2.4 Inadequate Teaching Tools

(1) Financial software that is not up to date. In the teaching of Accounting Information System course, older versions of financial software may be used for various reasons. Such software may not be able to adapt to new accounting rules and practices, handle new accounting operations, or provide sufficient functionality for detailed financial analysis[5]. All these factors may affect students' learning effectiveness and limit their learning of new accounting knowledge and skills.

(2) Lack of virtual simulation teaching. Virtual simulation teaching is an advanced teaching method that can simulate a real accounting environment through computer technology and allow students to perform practical operations in a simulated environment, thus improving their practical ability. However, due to the limitations of technologies and resources, many schools may not be able to provide such a teaching environment, resulting in a lack of opportunities for students to engage in practical operations and affecting their learning outcomes.

(3) Difficulty in implementing off-campus training. It is difficult to establish a real off-

campus practice base due to the specificity of the business. Accounting information system involves sensitive financial information of enterprises, so they are usually reluctant to open their financial systems for students' practice. This makes it difficult for schools to provide students with real practice bases, leaving them with a certain gap between the campus and the workplace. Although schools may try to provide practice opportunities through on-campus laboratories or simulated companies, these methods cannot fully simulate the real work environment and may not meet students' practice needs.

2.5 Unreasonable Assessment Mode

(1) Low proportion of practical assessment. The Accounting Information System course is a highly technical and practical course. Both theoretical knowledge and practical ability are important indicators for evaluating students' learning effect. However, in reality, many schools pay too much attention to the examination of theoretical knowledge but neglect the evaluation of practical operation ability in the assessment method, which results in a low proportion of practical assessment. This practice may make students neglect practical operation in the learning process, thus affecting their ability to master and apply accounting information system.

(2) Low proportion of process assessment. Process assessment refers to the continuous and dynamic evaluation of students' learning behaviors, learning attitudes, learning methods and so on during the whole teaching process. However, in the actual course assessment, many schools still rely too much on the final examination and neglect the investigation of students' learning process, resulting in a low proportion of process assessment.

(3) Mismatch between course competency assessment and professional competency assessment. The goal of the Accounting Information System course is to train students to master the basic principles, operational skills and application ability of accounting information system. However, in the actual assessment methods, excessive emphasis is often placed on the assessment of knowledge understanding and operational skills, while the examination of students' ability to analyze and solve problems is neglected. This practice may lead to the problem of mismatch between the assessment of course competence and the assessment of professional competence. It is impossible to comprehensively and accurately evaluate the learning effect of students.

3. Exploration of the teaching Mode of Accounting Information System Course under the Background of BIMC

3.1 Competencies of Accounting Graduates

Under the background of BIMC, accounting majors should have the ability to master the operation of accounting information system and have richer knowledge of information technology. With the development of big data, cloud computing, artificial intelligence and other new technologies, accounting is no longer just data processing in the traditional sense, but in-depth analysis and decision-making in conjunction with information technology. Therefore, accounting graduates need to master certain information technology knowledge, including data analysis, programming, etc. [6], as well as the ability to analyze and solve problems. For example, in the context of BIMC, the accounting information system is able to provide a large amount of data and information, but how to obtain valuable information from it and to identify and solve problems requires strong analytical and problem-solving skills.

3.2 Technologies or Theories Implantation

(1) Introducing new technologies and theories into the class. Technologies such as Big Data, Intelligentization, Mobile Internet and Cloud Computing have a wide range of applications in accounting information system. Teachers can teach the basic principles and working methods of these technologies in the course, for example, how big data can help enterprises deal with massive financial data, how cloud computing can realize the remote storage and access of financial data and how artificial intelligence can realize the automation of accounting work. At the same time, teachers can combine practical cases, such as how an enterprise uses big data to make financial decisions, to help students better understand these theories.

(2) Practical teaching combined with new information technology. Teachers can introduce accounting software or platforms containing new information technology for

practical teaching. For example, accounting software containing cloud computing functions can be used to allow students to personally operate and experience the application of cloud computing in the accounting information system. During the operation process, teachers can explain the working principle of cloud computing and its advantages in accounting[7].

(3) Combination of case teaching and new information technology. Teachers can choose some practical cases related to new information technology for teaching. For example, some enterprises can choose how to use big data for financial analysis, how to use cloud computing for remote financial management, or how to realize the case of accounting automation through artificial intelligence. In the process of explaining the cases, teachers can guide students to deeply understand the application of new technologies and the benefits brought by these technologies.

(4) Combination of course assessment and new information technology. In the course assessment, not only can we examine students' basic operation ability of accounting information system, but also their understanding and application ability of new information technology. For example, some topics containing the applications of new information technology can be designed, such as requiring students to design a program for financial analysis using big data.

3.3 Improvement of Teaching Methods

Many modern accounting software have integrated new technologies such as big data and artificial intelligence. The teaching of these software should focus on how to use new technologies for accounting processing and analysis.

BIMC technologies enables accounting information system to handle more complex business functions, so educators should place more emphasis on the logical relationships between business functions. In the teaching process, educators can combine actual accounting operations, such as sales, purchasing and inventory management, to explain how these operations are processed in the accounting information system and how these operations are interrelated.

In the teaching process, educators can guide students to analyze how these businesses use accounting information system to make decisions, how to use big data to analyze the financial situation of enterprises and how to use cloud computing to carry out remote financial management, etc., through real enterprise cases. In this way, students can improve their analyzing, forecasting and decision-making abilities in practice.

3.4 Enriching the Teaching Means of Accounting Information System Course

(1) Use of cloud platform financial software. With the development of cloud computing technology, many financial software can already be used on the cloud platform[8]. The use of cloud platform ERP software, such as SAP or Oracle ERP Cloud, can help students understand the operation of enterprise-level software and carry out practical operations. Teachers can choose financial software on these cloud platforms as a teaching tool so that they can not only use the latest financial software in a timely manner, but also do not need to worry about the installation and maintenance of the software. Moreover, the financial software on the cloud platform often has more powerful functions and can deal with more complex accounting business, so that students can come into contact with more real business scenarios in the learning process.

(2) Establishment of a virtual simulation laboratory for accounting information system. Virtual simulation technology can simulate the real accounting environment. Students perform practical operations in a simulated environment, improving their practical ability. Schools can establish virtual simulation laboratories of accounting information system to simulate various accounting operations. Students can understand and master the use of accounting information system in practice. What's more, schools can organize various practical activities through the virtual simulation laboratory, such as simulation of accounting work, simulation of business decision-making, etc., to enhance students' practical experience.

(3) Employing external tutors with rich practical experience. In the teaching of accounting information system, schools can hire external tutors with rich practical experience to teach or guide. These mentors

can share their practical experience and explain the real accounting business and the use of accounting information system, so that students can understand the application in real work. Meanwhile, these tutors can also guide students in their practical activities, provide real-time feedback and suggestions and help students improve their practical skills and problem-solving abilities.

3.5 Accounting Information System Course Assessment Mode

(1) Constructing a practical assessment system, focusing on the cultivation of practical ability.

The Accounting Information System course aims to let students master the skills of using accounting information system, which requires a lot of practical operation. Therefore, the assessment mode of the course should focus on practical assessment and evaluate the practical operation ability of students. For example, a practical assessment program can be set up to require students to use the accounting information system to complete a certain task. Then they can be evaluated according to their performance[9]. This way can effectively test the practical ability of students and also motivate them to learn and improve in practice.

(2) Increasing the proportion of process assessment, decreasing the proportion of final assessment. On the one hand, the process assessment can be carried out through usual homework, classroom performance, quizzes and other ways. On the other hand, the final assessment should not only focus on the examination of theoretical knowledge, but also examine students' practical ability and problem-solving ability.

(3) Emphasizing the training objective of "knowledge, ability and quality". The assessment of Accounting Information System course should not only examine the students' knowledge mastery and ability level, but also their professional quality. As shown in Figure 1. For example, students' teamwork ability, communication ability and problem solving ability can be examined through team projects[10]. Meanwhile, attention should also be paid to cultivating students' professional ethics and sense of responsibility, which are important qualities that accounting professionals should have.
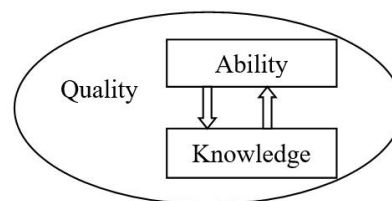
Figure 1. Knowledge, Ability and Quality Trinity

By establishing a comprehensive assessment system, students' learning outcomes can be evaluated more accurately and teaching objectives can be better realized.

4. Conclusion

Through the curriculum reform of introduction of the Advanced BIMC technologies and theories into the teaching process, the teaching content and method of Accounting Information System course have been updated and optimized. The new teaching mode can not only cultivate students' basic knowledge and skills, but also cultivate their innovative and practical abilities, so that they can better adapt to the future work demands. In the meantime, the new teaching method also makes the teaching process more vivid and interesting, and improves students' learning interest and satisfaction.

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