Research on Talent Training Mode of "Big Data + Intelligent Accounting" Based on OBE

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Abstract: Under the background of big data era, artificial intelligence rapidly covers the field of accounting, and financial robots emerge as the times require. The accounting industry is eager to improve the professional quality of accounting talents, and it is urgent to transform and upgrade the talent training mode of Accounting Specialty in universities. Based on the analysis of the problems existing in the current talent training mode of accounting major in undergraduate universities, this paper takes OBE as a new perspective to formulate the talent training mode, and combines with the changes in the demand for accounting talents in the Internet big data and intelligent accounting research market, And builds "big data + intelligent accounting" professional talent training framework model, which provide new ideas for college accounting professional training.

1. Introduction

With the "sudden emergence" of intelligent financial robot, various information data tools and enterprise financial sharing software will be popularized and applied. The traditional regularized and repetitive work of financial accounting will be replaced by computer. Accounting personnel will gradually get rid of the role of "direct producer" of financial data information. Financial personnel need to use information technology to process and analyze complex financial data, dynamic financial and non-financial information, and then make prediction, decision-making, planning, control and evaluation [1]. Relying on emerging technologies such as big data and artificial intelligence, accounting education reform should be more inclined to the talent training direction of combining big data with artificial intelligence. Accounting talents of big data should focus on cultivating management accounting talents who are oriented to the internal management needs of enterprises in the future, use data information to realize the integration of industry and finance, and cultivate management accounting talents with big data thinking and intelligent financial software operation skills, This type of talents will play an important role in the prediction of enterprise development prospects, auxiliary decision-making of business objectives, risk warning of investment and financing consultants, enterprise strategic planning, etc.

In recent years, the topic about the reform of accounting talents training mode in universities has attracted much attention. GUI Junyu reforms the training mode of financial management professionals in universities in China, and puts forward countermeasures from four aspects of talent

training objectives, curriculum system, teaching mode and teaching evaluation, so as to solve the deficiencies in the training scheme [2]. Dai Jiajun analyzed the shortcomings of the traditional teaching mode of accounting major in China's universities, and carried out a series of measures to reform the teaching of accounting major, such as constructing the "eight modernizations" teaching system of accounting major, carrying out the "Online + offline" mixed teaching activities, optimizing the construction of teaching staff, and deeply integrating school enterprise cooperation [3]. OBE pays attention to the actual needs of the society for talents, and is widely used in engineering education in universities. The OBE theory of learners' final output and the reverse design of teaching plans and objectives around the expected output is a mode that can enable students to gain knowledge through the implementation of the process. In view of the current situation of financial accounting teaching, Ma Shang proposed to build a teaching framework suitable for the development of secondary vocational students through the demand-oriented compound accounting talent training goal under the OBE concept [4]. Tian Lijun followed the concept of engineering certification and designed an accounting professional training program in line with the concept of OBE certification [5].

Looking at the above literature research, we can find that the existing research has obtained rich research results in the two fields of accounting talent training in universities and OBE concept in accounting education, but there are still some deficiencies. One is the possible connection between the two effects, especially in the reform of accounting education mode under the background of big data and the training of economic and management talents by OBE, which fails to consider the fit between OBE concept and the training of compound accounting talents integrating big data technology ability in universities; Secondly, there are few researches on accounting talents training combined with practical training cases, and most of the literatures only carry out theoretical analysis from a macro perspective. In view of this, this study integrates the OBE education concept into the accounting talent training under the background of big data, constructs the talent training framework mode of "big data + intelligent accounting" based on OBE, applies the frontier achievements of multidisciplinary theory, explores the prominent problems of education, management and Informatics, and enriches the education theory of accounting talent training in China.

2. The Current Situation of Accounting Talents Training in Universities

2.1 Lagging Talent Training Mode

The goal of accounting personnel training in universities is solidified, the curriculum system can not be adjusted in time to adapt to the development of big data and artificial intelligence, and the students have no deep feeling on the impact of financial intelligence. Secondly, the requirement of enterprises for accounting talents is not only to have professional skills such as economic business accounting, financial data analysis and strategic analysis, but also to have strong data processing and practical ability. However, at present, the training objectives of accounting professionals in most universities can not meet the employment needs of enterprises perfectly. universities can only meet the requirements of enterprises for students' financial professional skills, but can not meet the needs of enterprises for students' comprehensive quality such as data processing and decision-making ability.

2.2 Traditional Curriculum System

The curriculum system does not match the ability training of talent demand. At present, the accounting curriculum system in universities is still based on basic accounting, intermediate

accounting and advanced accounting to carry out teaching activities, focusing on the cultivation of professional and technical ability, lacking the ability training of data processing, such as data exploration and value discovery, big data, financial decision-making, cloud accounting, financial Sharing and other related courses are insufficient. The Internet, cloud computing and other technologies provide convenience for the financial personnel of enterprises. Accounting personnel can collect business data in real time, carry out dynamic financial management, and integrate the course into financial intelligence, which will help to achieve the cooperation purpose of school enterprise.

2.3 Teachers Lacking Compound Knowledge Structure

At present, the professional background of accounting teachers in universities is mainly accounting, financial management, auditing and so on. There is a lack of compound teachers who understand not only data processing, cloud accounting, financial sharing knowledge but also financial knowledge. Because of the vacancy of compound teachers, students' accounting knowledge still stays at the traditional accounting level, and they can not grasp the advanced knowledge of intelligent accounting. Teachers' teaching lacks the customer management, supplier selection strategy and capital decision making under the environment of "Internet plus big data.

2.4 The teaching Methods and Means of Slow Renewal

At present, in the construction process of accounting major in universities, the connection with big data, cloud computing and artificial intelligence era is not significant enough. Accounting professional curriculum resources are not highly shared, and the communication between teachers is insufficient, which leads to a certain waste of resources. Classroom teaching method is still the main teaching method in the classroom. In addition, in the classroom teaching of MOOCS and micro class, common teachers teach through information technology means such as the Internet, but in the aspects of students' innovation , training and practice, the teaching means are still single, which is not conducive to the improvement of students' practical ability.

2.5 The Vacancy of Professional Quality Training

Accountants should not only advocate professional ability, but also pay attention to the achievement of other professional ability indicators. First of all, communication skills are required for any position. Secondly, team ability is one of the important conditions for accounting practice. As a compound accounting talent, we need to have the ability to lead the team to solve problems and make effective decisions. In addition, professional competence indicators also require the ability to integrate different business professional knowledge, business ethics, general business knowledge, critical thinking and global thinking. At present, there is a gap in the cultivation of students' professional quality in college accounting, and the cultivation of students' all-round ability is ignored in education.

2.6 Imperfect Assessment

At present, the assessment of accounting major in universities is mainly based on the weighted average of the score of the final examination paper and the score of the usual written homework, so as to finally determine the comprehensive score of students in this subject. But the assessment of students' practical ability accounts for less. The emphasis on the memory of knowledge is rigid and easy to kill students' innovative thinking, which deviates from the goal of cultivating students'

ability to analyze problems.

3. Construction Talent Training Mode of "Big Data + Intelligent Accounting" Based on OBE

3.1 OBE Education Model

OBE education concept of big data intelligent accounting personnel training should be based on the system setting of learning output driving the whole curriculum activities and students' learning process, and accord to the reverse linear constraint path of enterprise needs, career needs, students' development, training objectives, ability indicators, curriculum system and teaching methods. OBE education model (as shown in Figure 1) takes "defining learning output - realizing learning output - evaluating learning output" as the main line to carry out teaching activities[6]. First, The talent training mode should define learning output (set talent training objectives) by focusing on the needs of enterprises, professions and students, and reverse design personnel training objectives. Secondly, the realization of learning output (training process). Specifically, it includes the teaching design of helping students obtain learning output, the teaching method of "teaching- learning- doing" situational interaction in teaching practice, the design of composite curriculum system, and the improvement of teachers' level through training and further study. Finally, evaluate the learning output (construct the evaluation system). Through the ability assessment, we can evaluate whether the initial training objectives are reasonable, and constantly adjust them in the process of implementation, so as to form a closed-loop feedback mechanism of continuous improvement.
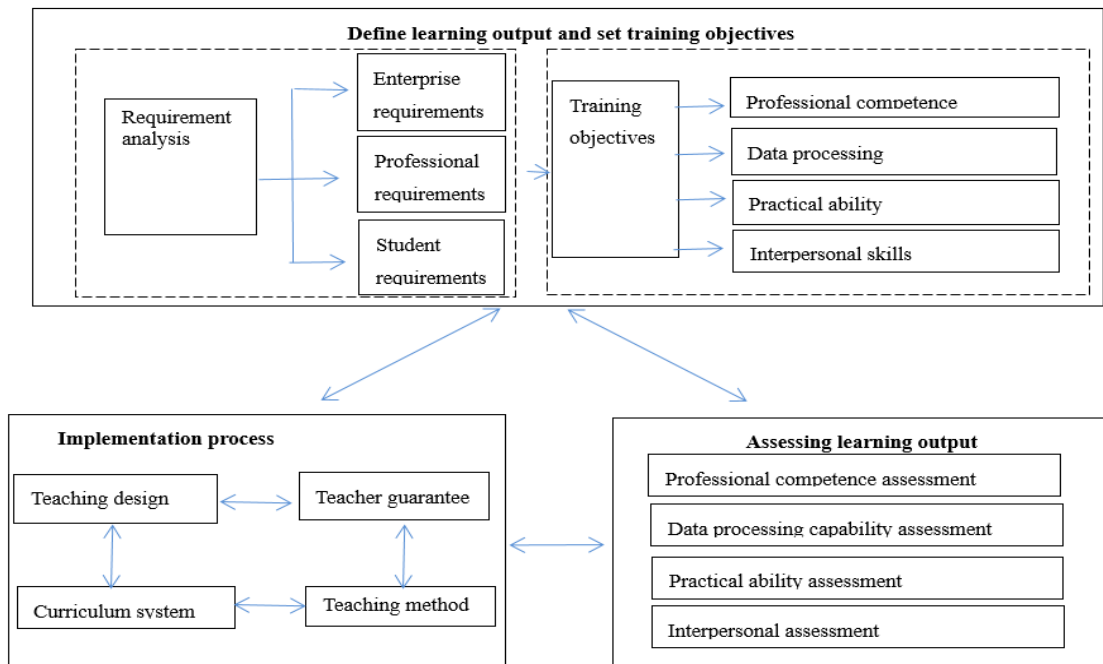

Figure 1 OBE education model

3.2 Design of Talent Training Objectives

Accounting is a strong application-oriented major. Under the background of big data, in order to cultivate excellent accounting talents who meet the needs of future economic and social development, it is required that the trained accounting talents must have strong application ability of financial information technology based on data processing, which makes "big data + intelligent accounting" have a certain degree of Engineering attribute. This kind of organic embedding of

Engineering attributes is just in line with OBE's concept of engineering education.

In the design of "big data + intelligent accounting" accounting talent training objectives, universities should recognize the requirements of the current development of information technology for accounting personnel by analyzing the needs of enterprises, occupations and students' development. In addition to mastering relevant professional theories, they also need to master the processing and Application Technology of data information and the comprehensive technology of organizational strategy and risk management. Therefore, universities should cultivate compound and applied accounting talents with professional competence, data processing ability, practical ability and interpersonal ability in line with the development of the intelligent era.

3.3 Constructing the Framework of Ability Training and Designing the Compound Curriculum System

According to the training objectives, the university should construct of "big data + intelligent accounting" application ability training framework, further improve the corresponding curriculum system, embed big data related courses in the existing accounting curriculum system, build a composite curriculum system of "big data + intelligent accounting", enrich the elective course content in the original traditional financial accounting curriculum system, and embed big data related knowledge, add more practical courses. The new curriculum system should be more suitable for the development of cloud computing, artificial intelligence and big data, and provide basic guarantee for students to obtain learning output [7].

3.3.1 Professional Competence Course

It is not enough to acquire professional competence only from the required courses, but also consider the role of elective courses. Professional compulsory courses generally include accounting practice, cost accounting, financial management, management accounting, tax planning, etc. Professional elective courses can include some accounting professional knowledge related to different fields of accounting, such as enterprise management consulting, financial accounting, e-commerce accounting, real estate accounting, government accounting, finance, corporate strategic management, etc. Professional compulsory courses lay a solid foundation for students' professional knowledge and build high-rise buildings, while professional elective courses open the window of accounting in different fields, enrich students' knowledge, and provide students with the choice of future employment direction.

3.3.2 Data Processing Ability Course

Data processing capabilities include data screening, data integration, analysis and prediction capabilities. Therefore, it is necessary to integrate big data, cloud computing, statistics and other knowledge into the teaching of accounting professional knowledge such as financial sharing and decision-making, and arrange courses close to big data, such as cloud computing and intelligent financial sharing, big data and financial decision-making, machine learning and financial intelligence XBRL and data mining analysis.

3.3.3 Practical Ability Course

Practical ability is to make students apply what they have learned to practical operation in the form of training and practice, so as to achieve the effect of combining theory with practice. The cultivation of practical ability is reflected in two aspects: on campus practice and off campus

practice. On campus practice can set up accounting computerization, ERP sand table simulation, supply chain management comprehensive experiment and so on. On the other hand, off campus practice has two ways: school enterprise joint construction of training base and students' self employment.

3.3.4 Interpersonal Skills Course

Interpersonal communication ability refers to the ability to properly handle the relationship with others and ensure the smooth progress of interpersonal communication. However, students tend to pay attention to their study and neglect the communication with teachers or classmates; We pay attention to the fragmentary and fragmentary technical terms, but we can't express them clearly and accurately in popular words or fluent language; Used to follow the command, students don't think they have the leadership ability to organize and coordinate the team. Therefore, universities can set up relevant general courses of accounting major, such as: quickly adapt to the workplace, communication and language art, personal image design, financial clerk practice, financial professionalism and so on.

3.3.5 Design of Mixed Teaching Mode of "Online +Offline"

Based on the perspective of big data and intelligent accounting, the hybrid teaching mode of "Online + offline" is adopted, which fully reflects the double subject teaching mode of "student + teacher" [8]. Teachers' learning guidance for students is no longer confined to the single form of "offline", but to the mixed form of "Online + offline". Combined with the cloud platform to implement teaching activities, students' learning performance is comprehensively evaluated according to the "online" cloud data and "offline" performance.

Before class, teachers inform students to preview in advance, and release teaching resources on the cloud platform through ppt courseware, micro class and other forms. Teachers can use interactive videos or insert knowledge test questions in the browsing courseware. Only when they finish the questions that pop up in the middle of the course, can they continue to browse the teaching resources. When the students answer correctly, they can continue to learn the follow-up teaching content; When students answer wrong, they will give detailed answer analysis or return to the interface of relevant knowledge points, so that students can understand why they choose the wrong answer, and then pop up a new question to check whether students master the knowledge point again. In addition to watching interactive videos or courseware, online preview quiz is arranged to detect students' Preview.

In class, teachers can publish the key and difficult points of teaching and related classroom tests on the cloud platform to carry out classroom teaching activities, and master students' classroom knowledge in real time through cloud data; Teachers can also use the check-in and roll call functions of teaching assistant software to check on students' attendance and activate the classroom, which can be used as one of the basis of students' evaluation. Students earn "points" by checking in online on time and actively answering questions.

After class, teachers can publish homework on the cloud platform and set the delivery time. Through the background data of the cloud platform, teachers can automatically detect the completion of students and the concentration of knowledge points. According to the background data, students need to complete homework on the cloud platform on time and submit or upload homework within the specified time, It is because the online homework on the Internet platform can reduce the burden of teachers or class representatives to some extent.

The online and offline hybrid teaching is helpful to the personalized cultivation of students, which enables students to arrange their learning time independently and share teaching resources.

At the same time, the network cloud platform has strong big data support, which can record, count and analyze each student's learning trace in real time; According to the data analysis of students' mastery of knowledge and completion progress, teachers can get teaching feedback as soon as possible, so as to provide more targeted teaching guidance for students in the future classroom teaching.

3.4 Guarantee for the Construction of Teaching Staff

In order to cultivate accounting talents to adapt to the development trend of "big data + intelligent accounting", we should first strengthen the construction of compound teaching staff to keep pace with the times, and constantly update the reserve of teachers' financial professional knowledge. Therefore, universities can regularly organize full-time accounting teachers to practice in local enterprises to understand the latest situation of enterprise intelligent finance, and enhance teachers' professional ability of practical guidance and innovation and entrepreneurship guidance. In addition, universities can invite enterprise experts to give lectures or provide them with teaching opportunities, or employ professionals from professional institutions, such as certified public accountants, to serve as part-time teachers of practical courses. In the era of "big data + intelligent accounting", accounting teachers should actively participate in all kinds of accounting frontier training, discussion and learning of new technologies and new financial forms, and develop towards compound teachers who not only understand data processing, cloud accounting, financial sharing knowledge, but also understand financial knowledge. On the one hand, we should know the accounting talent demand standard under the background of intelligent accounting era; on the other hand, we should strive to learn advanced technologies such as big data and cloud platform, integrate them into teaching activities, and use interactive teaching mode to improve teaching interest and teaching effect, so as to attract students' interest in learning and stimulate students' creative thinking.

3.5 Construction of Evaluation System

It belongs to the traditional evaluation system to evaluate students' learning situation by classroom performance and paper examination. Universities can focus on the ability target assessment of talent training objectives. Because of the combination of online and offline teaching mode, universities should also form two evaluation models of online and offline teaching evaluation, so as to refine the assessment indicators of professional competence, data processing ability, practical ability and interpersonal ability.

Online assessment can be divided into classroom performance and comprehensive training on campus. Classroom performance can be divided into attendance check-in and answer points. The main assessment is students' interpersonal skills; School training is divided into individual test and group competition. Individual test includes computer theoretical knowledge test and computer practical operation test. It assesses students' professional ability, practical operation ability and data processing ability. Group competition is a competition between groups based on groups, which assesses students' team consciousness and team spirit in interpersonal ability Practical ability and data analysis ability to complete the task. Offline assessment can be subdivided into mid-term or final written test, case analysis work defense and off campus practice performance. Among them, case analysis work defense is a comprehensive assessment method in offline assessment, which can not only assess students' professional competence and data processing ability, but also assess students' interpersonal skills, such as expression ability and team consciousness.

4. Conclusion

Under the background of "Internet plus" big data and intelligent accounting, universities need to reform and innovate the training mode of accounting professionals with the development of the times. Based on the OBE engineering education mode as the theoretical basis, this paper investigates the demand analysis to set up the talent training objectives, and further defines the four abilities that the accounting professionals should possess - "professional competence", "data processing ability", "practical ability" and "interpersonal communication ability" Finally, the evaluation system is used to test the effect of the four abilities, modify and improve the original training plan.

Acknowledgment

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