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The Deep Integration of School-Enterprise Joint Cultivation Model of Finance and Economics Majors with Industry Needs in the Context of OBE Concepts

Yu Zhai[1], *Yanbo Li*[2] *and Ke Wang*[3,*]

[1] School of Finance and Economics, Hainan Vocational University of Science and Technology, Haikou, Hainan, 570000, China
[2] School of Financial Management, Hainan College of Economics and Business, Haikou, Hainan, 570000, China
[3] School of Maritime Studies, Hainan Vocational University of Science and Technology, Haikou, Hainan, 570000, China

SUMMARY: *The article designs and implements a school-enterprise joint cultivation mode based on the OBE concept and launches a teaching experiment with the finance and economics majors in School H as the research object. Questionnaires and test papers were used to collect data before and after the teaching experiment. The sample t-test data processing method was then used to compare the differences between the traditional cultivation mode and the school-enterprise joint cultivation mode guided by the OBE idea in order to determine whether this cultivation mode satisfies the industrial requirement. With average ratings ranging from 4.2 to 4.8, it was discovered that students in the experimental class outperformed the control group in terms of engaged learning behavior and involvement. Students in the experimental group scored an average of 7.67 points higher than those in the control group on the post-test. Additionally, they significantly outperformed the control group in terms of their capacity for methodical thought. They are considerably better than the later group, with their assessment index score value ranging from 4.34 to 4.70 points. Under the above-mentioned cultivation mode, students will be able to understand the career core literacy in finance and economics in a comprehensive way. Their scores of every index will exceed 4.3 points. Through the school-enterprise joint cultivation mode based on the OBE idea, it is easy to make students integrate themselves with the industry in terms of theories, thinking, and profession.*

KEYWORDS: *Sample t-test; Teaching experiment; School-enterprise joint cultivation; OBE philosophy*

1 Introduction

The availability of skilled workers is necessary for the process of economic development, and the firm needs a large number of skilled financial workers; otherwise, the process would be constrained [1]. However, at present, the condition of the financial professionals does not seem very encouraging, as their competence and capability is not enough to meet the demand of economic development [2]. As a result, China closely monitors the advancement of professional education in the fields of finance and economics, and improving professional construction in these fields is a key component of raising educational standards. In accordance

*ary_1220@163.com.cn
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with the educational reform trend, the talent training model of the collaboration between schools and businesses establishes the students' learning objectives through practical projects. This clarifies their learning paths and guarantees the development of a strong foundation in finance and economics talent training [3-6].

In the context of school-enterprise cooperative education, the school improves cooperation and communication between schools and businesses and makes efficient use of resources both inside and outside the school so that students can develop their professionalism and skills in this setting [7-10]. In the course of teaching, the school evaluates the education process from different angles, so as to ensure that the students learn actively and voluntarily during the teaching process [11]. As for the research on the application of the school-enterprise cooperative education mode in finance and economics education, the literature [12] argues that the conventional teaching mode in financial management is no longer suitable for the talent requirement in the current situation, highlighting the function of school-enterprise cooperative education mode in enhancing the personal competence, operational skills and teamwork spirit of students, suggesting that the establishment of school-enterprise cooperative education mode will meet the requirement for transformation of the finance. The talent cultivation model of financial management was examined in literature [13] , which confirmed the beneficial effects of the school-enterprise cooperative model on encouraging students' integration of theory and practice, raising employment rates, and fulfilling the demands of the education industry's development. In light of the fundamental ideas of "value co-creation and ecological symbiosis," literature [14] outlined the specific realization path and implementation guarantee mechanism, including dynamic resource allocation and closed-loop assessment, and discussed the structural issues with the school-enterprise joint cultivation of finance and economics graduates. It also suggested building a new school-enterprise cooperative model. Literature [15] constructed a rational logical model of diversified school-enterprise cooperative education, which includes “theoretical framework, collaboration and implementation mode”, and is beneficial to promote the consistency between talent training and industrial requirement and provide some practical guidance for financial education system. Literature [16] constructed a comprehensive financial practice teaching platform through school-enterprise cooperation, which combines the practical teaching process with the real enterprise project, thereby improving students’ practical ability and employment competitiveness in finance.

Additionally, the concept of Outcome-Based Education (OBE) aligns with the school-enterprise cooperative training model in talent development, which emphasizes the learner-oriented and result-driven talent development model; reverse designs the curriculum and emphasizes the quantifiable and transparent nature of learning outcomes [17-19]. Integrating the OBE idea with the school-enterprise cooperative training model in professional education in finance and economics can stimulate learners to learn personalized information in finance and economics education and gain skills to satisfy the demand in practical activities, so as to narrow down the gap between educational results and industry needs [20-23]. In this case, literature [24] highlights the significance of incorporating the OBE idea to improve the traditional talent development program and presents the measures of cooperative talent development of schools and enterprises in economics and trade majors through summarizing the current ways of implementing cooperative talent development of schools and enterprises in economics and trade majors and analyzing their existing problems and causes. According to literature [25], in order to successfully address the issues of talent-social demand mismatch and long-term cooperative difficulties between schools and enterprises, it highlights the problems with the cooperative talent development model of schools and enterprises and presents the teaching philosophy of integrating OBE to build the industrial and teaching integration education model Literature [26] develops the curriculum system integrated with the OBE idea

and school-enterprise collaboration matching the abilities and levels of learners, including teaching objectives, contents, designs, and assessment, aiming at completely transforming the problems existing in the traditional teaching model and cultivating a group of compound talents meeting industry demands.

A school-enterprise collaboration training model for finance and economics students is created with the training objectives of knowledge, ability, and position in the context of the OBE idea. The general education course, professional basic course, and practice course are only a few of the modules that make up the curriculum system designed for the finance and economics major. Its goal is to support students' entire growth of knowledge, skills, and careers. In School H, a teaching experiment was conducted for a semester. Pre-tests, post-tests, questionnaires, and other techniques are used to gather the teaching data. The degree of appropriateness of the cooperative training method of school and enterprise under the idea of OBE to the requirements of industry is assessed based on the sample t-hypothesis test.

2 Critical data analysis based on sample t-tests

Setting null hypotheses is the initial stage in hypothesis testing, and the Sample t-test is one of the important methods for doing so. Therefore, the first step in applying the t-test technique to find variations in teaching and learning between different training approaches is to select the sample t-test's null hypothesis. In hypothesis testing, there are two types of errors:

Type I error: the error of rejecting the null hypothesis H_0 when it is actually true.

Type II error: the error of accepting the null hypothesis when it is actually false.

The probability of making a Type I error is generally controlled in a hypothesis testing problem so that it is no greater than the significance level α. In other words, the probability of making a Type I error is controlled by the tester, and limiting α to a small value ensures that there is less likelihood of incorrectly rejecting it when it is actually true. On the other hand, this also implies that the protection of the null hypothesis in the process of testing is possible, and the two hypotheses are not equally important. In such a way, in case when the consequences of the occurrence of the type I error and type II error are worse for one of them, the null hypothesis is selected in such a way that the error with the worst consequences turns into the type I error. Otherwise, it is commonly considered to be the maintenance of the status quo.

After determining the null hypothesis, the following t specific steps for testing the detection of energy information leakage can be carried out:

(1) Data Acquisition:

Instructional data were collected during the experiment to obtain $T_i\left(i \in \{1,2\cdots n\}\right)$, where each bar contains m sampling points $\{T_i(1),T_i(2)\cdots T_i(m)\}$.

(2) Grouping:

Select a certain intermediate node as the t test site, denoted as D_i. And then determine the position of the sampling point corresponding to this intermediate node in the teaching data, and according to the value of D_i, the n data values are divided into two groups, Ψ_0 and Ψ_1:

$$\Psi_0 = \{T_i | D_i = 0\} \quad \Psi_1 = \{T_i | D_i = 1\} \tag{1}$$

Set a specific value x, which is divided into two groups depending on whether the test value is equal to x or not:

$$\Psi_0 = \left\{ T_i \middle| D_i = x \right\} \quad \Psi_1 = \left\{ T_i \middle| D_i \neq x \right\} \tag{2}$$

(3) Processing the data:

Statistics are performed to obtain sample sizes n_0 and n_1, sample means μ_0 and μ_1, and sample variances S_0^2 and S_1^2 for the two sets of data values, while the test statistic t is computed later:

$$t = \frac{\mu_0 - \mu_1}{\sqrt{\frac{S_0^2}{n_0} + \frac{S_1^2}{n_1}}} \tag{3}$$

Calculate the degree of freedom v:

$$V = \frac{\left(\frac{S_0^2}{n_0} + \frac{S_1^2}{n_1} \right)^2}{\frac{\left(\frac{S_0^2}{n_0} \right)^2}{n_0 - 1} + \frac{\left(\frac{S_1^2}{n_1} \right)^2}{n_1 - 1}} \tag{4}$$

In the case of $n_0 \approx n_1$ and $S_0^2 \approx S_1^2$, the degrees of freedom can be simply estimated as:

$$V = n_0 + n_1 = n \tag{5}$$

The probability density function of the t distribution can then be obtained from the degrees of freedom v:

$$f(t,v) = \frac{\Gamma\left(\frac{v+1}{2} \right)}{\sqrt{\pi v}\Gamma\left(\frac{v}{2} \right)} \left(1 + \frac{t^2}{v} \right)^{-\frac{v+1}{2}} \tag{6}$$

where Γ denotes the gamma function. The probability that the null hypothesis in the t-test holds can be further obtained from the above equation:

$$p = 2\int_{|t|}^{\infty} f(t,v)\,dt \tag{7}$$

The distribution function can also be derived first by using the following equation:

$$F(t,v) = \frac{1}{2} + t\Gamma\left(\frac{v+1}{2} \right) \frac{2^{F_1}\left(\frac{1}{2}, \frac{v+1}{2}, \frac{3}{2}, -\frac{t^2}{v} \right)}{\sqrt{\pi v}\Gamma\left(\frac{v}{2} \right)} \tag{8}$$

where 2^{F_1} denotes the hypergeometric function. And then we get the probability that the null hypothesis holds in the t-test:

$$p = 2F\left(-|t|, v\right) \tag{9}$$

(4) Comparative analysis and conclusions:

The outcome of the sample t-test gives a numerical value for the likelihood of whether there is a distinction between the means of both the sets of instructional data. When a larger p-value is achieved, it indicates that there is a lesser distinction between the two sets of instructional data, and the null hypothesis is accepted, whereas a smaller p-value suggests that there is a greater distinction between the two sets of instructional data.

3 Construction of school-enterprise collaborative training mode for finance and economics majors under the OBE philosophy

3.1 Core of the OBE philosophy

The final achievement of the students serves as both the point of origin and the point of arrival in the OBE approach, which designs the whole teaching process backwards. The emphasis of the OBE approach lies in developing the holistic practical capability of the students; thus, for OBE teaching to be effective, diverse teaching approaches must be adopted, which would not only enhance the flexibility of the learners but also help develop their skills in different areas. This would give learners several chances to succeed, make the lessons lively, and engage their attention.

3.2 Establishment of training objectives

The research focuses on the knowledge and abilities of students studying finance and economics in order to examine how internal and external needs and cultivation objectives interact. It cultivates students' general and professional abilities through internal demands, cultivates students' job competencies through external demands, cultivates students' comprehensive knowledge and comprehensive abilities through general education courses, and focuses on cultivating students' abstract thinking, innovation, communication skills, etc., to promote students' development. Based on the internal and external demands, it is determined that the talent cultivation objectives of the finance and economics majors include: knowledge objectives, ability objectives (at graduation), and job objectives (5 years after graduation).

3.3 Determination of graduation requirements and graduation requirement indicator points

Two principles should be followed when determining the graduation requirements: first, the graduation requirements can support the achievement of the training objectives. The second is that the graduation requirements should fully cover the requirements of engineering education professional certification standards. Based on these two principles, the study determines that the graduation requirements for finance and economics majors mainly include: ideological beliefs, basic knowledge, problem analysis, scientific research, use of tools, professional norms, communication skills, individual and team, project management, and lifelong learning.

According to the OBE concept, the indicator points of graduation requirements for finance

and economics majors are decomposed. The determination of indicator points should follow two principles: first, relevance, there is a clear correspondence between graduation requirements and indicator points. The second is accuracy, that is, the index points should correspond precisely to the graduation requirements. Taking the graduation goal of basic knowledge as an example, the indicator points of this goal can be decomposed as:

(a) Learn and comprehend the principles of economics and problem-solving techniques, and be able to apply the information and techniques acquired to solve mathematical and scientific problems.

(b) Learn and understand the foundational concepts, ideas, and techniques of management while simultaneously putting that knowledge to use and making an effort to communicate realistically in order to resolve problems pertaining to project planning and execution.

(c) Analyze practical problems from the perspectives of economics, management, and other disciplines, discover the limitations of applying knowledge from each discipline, and attempt to apply comprehensive knowledge to solve industry-related problems.

3.4 Construction of specialized course system

We will investigate the course system building centered on the development of financial and economic students' practical skills, innovation and entrepreneurship capability, and problem-solving capabilities in order to ensure the comprehensive development of students' knowledge, skills, and qualities. This will be done by conducting in-depth consultation with experts from institutions and organizations and by closely integrating the development trend of modern finance and economic professional disciplines and the development needs of enterprises. The core curriculum modules include:

(1) Professional Education Course Module

Professional education courses are intended to foster students' knowledge, abilities, and professionalism. They include professional theoretical knowledge and skills of finance and economics specialty in line with the realities of finance and business along with other related engineering, assisting students in developing analytical skills and the ability to solve complex financial problems and to be professional. Professional electives and required courses make up the professional modules presented in regard to future employment; the professional electives are those that are based on collaboration between businesses and the university.

(2) Practical Course Module

Regarding the practical course module in which the objective is to enhance professional skills in finance and economics among students, there have been practical courses that have been established in order to integrate the actual financial conditions of businesses. This includes course experiments, course design, and the final internship as well as thesis. The percentage of practical course modules has been increased to exceed 50% in terms of credit hours of all courses in the curriculum. We have increased the strength of practical training and set up some comprehensive and self-designed projects and courses for solving complex financial problems.

3.5 Implementation of school-enterprise joint mode based on teaching practice

The above has formed the framework of joint cultivation between schools and enterprises based on the concept of OBE through the determination of cultivation objectives, graduation requirements, and curriculum system, and this section unfolds the case implementation of teaching activities of finance and economics majors based on the framework to analyze the effectiveness of the teaching experiment of the framework and the degree of fit between the cultivated talents and the industry's needs.

3.5.1 Targets for teaching implementation

Students majoring in finance and economics in the 24th grade at H School in Changsha City, Hunan Province, are the intended audience for this teaching experiment. Forty of these students were selected and split into an experimental group and a control group. In this instance, a control group will get instruction using a conventional method, while an experimental group will study in the mode of unification of school and enterprises under the philosophy of OBE. "Fundamentals of Accounting" was the first course in the teaching experiment. Before the implementation of the teaching experiment, the study learned that the students have a certain understanding of accounting, and some of them have also been exposed to the accounting position in their relevant internships or enterprise experiences, and have a certain learning foundation.

3.5.2 Experimental content and methods

The teaching experiment will last for one semester in March 2025, and according to the arrangement of the university, the total credit hours of this course are about 48 credit hours, 3 sections per week. In view of the conditions of teaching practice, the study mainly adopts the questionnaire survey method and the before-and-after comparative research method of a single experimental group to verify the effectiveness of the application of the school-enterprise joint training model based on the concept of OBE in the course of Fundamentals of Accounting. As far as the data analysis is concerned, the sample t-test discussed above was applied in analyzing the teaching effect. In order to make sure that the teaching experiment is carried out in a scientific way, it is important to control the variables in the process of teaching, which means keeping all variables consistent except for the cultivation modes of the experimental and control classes.

3.5.3 Practical measurement tools

(1) Systems Thinking Measurement Scale

The study reviewed relevant literature and developed its own measurement scale for systems thinking. The scale includes three main aspects of feedback comprehension thinking, critical thinking, and divergent thinking, totaling 13 questions. The reliability of the modified scale was tested using SPSS, and the value of Cronbach's Alaph before the test was 0.895, and the value of Cronbach's Alaph after the test was 0.924, which can better reflect the level of systematic thinking of the survey participants. The scale is a Likert scale, which assigns a value of 5, 4, 3, 2, and 1 points to always, often, occasionally, rarely, and never, respectively.

(2) Occupational Core Literacy Survey

Occupational core literacy survey is used to evaluate the fitness of students with industry needs, and the study made its own occupational core literacy questionnaire, which was filled in by enterprise experts. Eighteen topics in four dimensions, namely, professional ethics, professional role competence, job competence and career development awareness, were used to evaluate students' career literacy through a five-point Likert scale. The value of Cronbach's Alaph of this questionnaire before the test is 0.927, and the value of Cronbach's Alaph after the test is 0.935, which can effectively reflect the level of students' career core literacy.

(3) Application Effect Questionnaire

The application effect questionnaire is prepared on the basis of combining the characteristics of the courses in the study with the teaching implementation, and drawing on the learning satisfaction questionnaire prepared by previous authors for the evaluation of the application effect. The content of this questionnaire includes the effect survey on four aspects of expected learning outcomes, teaching process, learning evaluation, and ability enhancement,

totaling 20 topics, prepared using a five-point Likert scale. The Cronbach's Alaph value of this questionnaire is 0.988, and the value of Cronbach's Alaph after the test is 0.913, which are both greater than 0.8, and can better respond to the students' satisfaction with learning under the application of this cultivation strategy.

4 Evaluation of the practical effect of the school-enterprise joint training model

4.1 Observation of Student Classroom Behavior

In this study, we referred to the previous students' classroom behavior observation form and adapted it to observe the performance of the experimental and control classes in the Fundamentals of Accounting course for five classes each, and the observations included learning engagement and class participation. Among them, the learning engagement dimension includes: class punctuality, concentration, class notes, and class quizzes, a total of four indicators, which are recorded as classroom behaviors 1 to 4 in order. The dimensions of classroom participation include: classroom response, robbing questions, active questioning, group discussion, communication and cooperation, and atmosphere of inquiry, for a total of six indicators, which are recorded as classroom behaviors 5-10, in that order. Each class was graded by the subject teacher, the class representative and the students on duty that day.

Classroom behavior observations of the experimental group and the control group are depicted in Fig. 1. In light of the data on observation outcomes, it can be concluded that the behavior of the experimental group in terms of the proposed model is superior to the traditional methods of teaching. Specifically, the average rating of each indicator of the classroom behavior of the experimental group ranges from 4.2 to 4.8, while for the control group, the average rating falls within the range from 3.6 to 4.2. The sample t-test indicates that the difference between the groups is statistically significant, $p < 0.05$. Adopting the cultivation mode proposed in this paper is a relatively novel teaching mode for students, with rich learning activities that allow for more frequent teacher-student interactions, students' high enthusiasm for cooperative group inquiry, and an active classroom atmosphere.

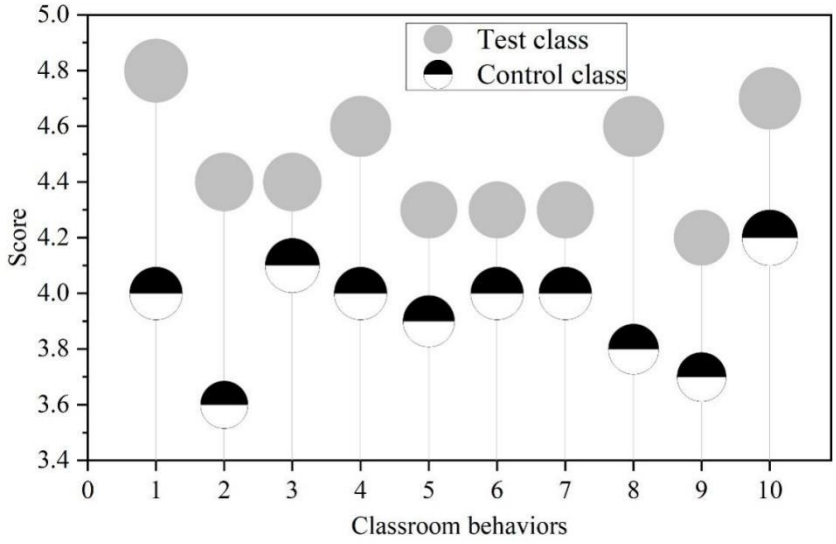

Figure 1: Two classes behavior observation results

4.2 Analysis of Course Learning Achievement

The overall grade for the course of study in Fundamentals of Accounting combines a process evaluation as well as an outcome evaluation, including students' classroom participation, group work, and the quality of practice outcomes. To make sure both courses have similar levels and meet the conditions of the teaching experiment, a preliminary test was conducted on the two classes prior to its deployment. The results of the t-test analysis of the experimental and control groups' pretest scores are shown in the following table. There is no statistically significant difference in all the scores of the two classes, $p>0.05$. In the experimental group, the average score of classroom activity, group collaboration, and practical performance scores were 72.59, 74.56, and 70.29, respectively. The scores of the control group were 72.43, 74.37, and 70.42, respectively, while the combined average scores of the two groups were 72.48, 72.41, respectively.

Table 1: Pre-test results of the students in two classes

	Class	Mean	SD	F	p
Classroom participation	Test	72.59	5.511	1.941	0.588
	Control	72.43	5.571		
Group cooperation	Test	74.56	5.242	2.656	0.436
	Control	74.37	5.627		
Practical results	Test	70.29	5.626	2.079	0.459
	Control	70.42	5.434		
Comprehensive grade	Test	72.48	5.349	2.167	0.604
	Control	72.41	5.515		

Students in both courses took a second exam at the conclusion of instruction, and the t-test statistical method was used to assess the post-test findings for both classes, as shown in Table 2. The results are as follows: The composite average score of the experimental class is for 85.22 points, while the average score of the control class is 77.55 points, and the composite average score of the experimental class is 7.67 points greater than the composite average score of the control class. The grades that the students in the two groups received at the end of the course varied significantly, as indicated by the significance coefficient $p = 0.017 < 0.05$. Furthermore, the experimental class's accomplishment, group cooperation, and class engagement scores ranged from 82.20 to 87.79 points, respectively, and were considerably higher than the control class's results ($p < 0.05$). It means that the experimental class was more successful in learning the theoretical knowledge in a more thorough way. From this study it can be concluded that the OBE-based school and enterprise cooperative education system is better suited for understanding finance and economics than the traditional one.

Table 2: Post-test results of the students in two classes

	Class	Mean	SD	F	p
Classroom participation	Test	82.20	7.137	8.983	0.022*
	Control	74.49	7.027		
Group cooperation	Test	85.66	6.591	7.713	0.014*
	Control	77.04	7.703		
Practical results	Test	87.79	6.453	7.422	0.031*
	Control	81.12	7.734		
Comprehensive grade	Test	85.22	7.414	8.259	0.017*
	Control	77.55	7.005		

*Represents significant at the 0.05 level

4.3 Systems Thinking Skills Development

For the purpose of testing the impact of the school-enterprise joint cultivation model proposed in this paper on the basis of the OBE theory on the systems thinking ability of the experimental group students and the control group students, this part of the study examines the variation of the systems thinking ability of the experimental group students and the control group students before and after the experiment. The systems thinking ability consists of three aspects: feedback thinking, critical thinking, and divergent thinking.

The results of pretest comparison of the level of development of the systematic thinking skills of students in the two classes were shown in Figure 2. Students in the experimental group scored an average of 3.34, 3.53, and 3.22 in feedback comprehension thinking, critical thinking, and divergent thinking, respectively; students in the control group scored an average of 3.33, 3.53, and 3.21 in these areas. However, there was no discernible difference in the pretest systematic thinking ability of students in both classes. There were no statistically significant differences in the scores of indicators, $p > 0.05$, hence students of both classes were consistent in their systems thinking skills for the purpose of the teaching experiment.

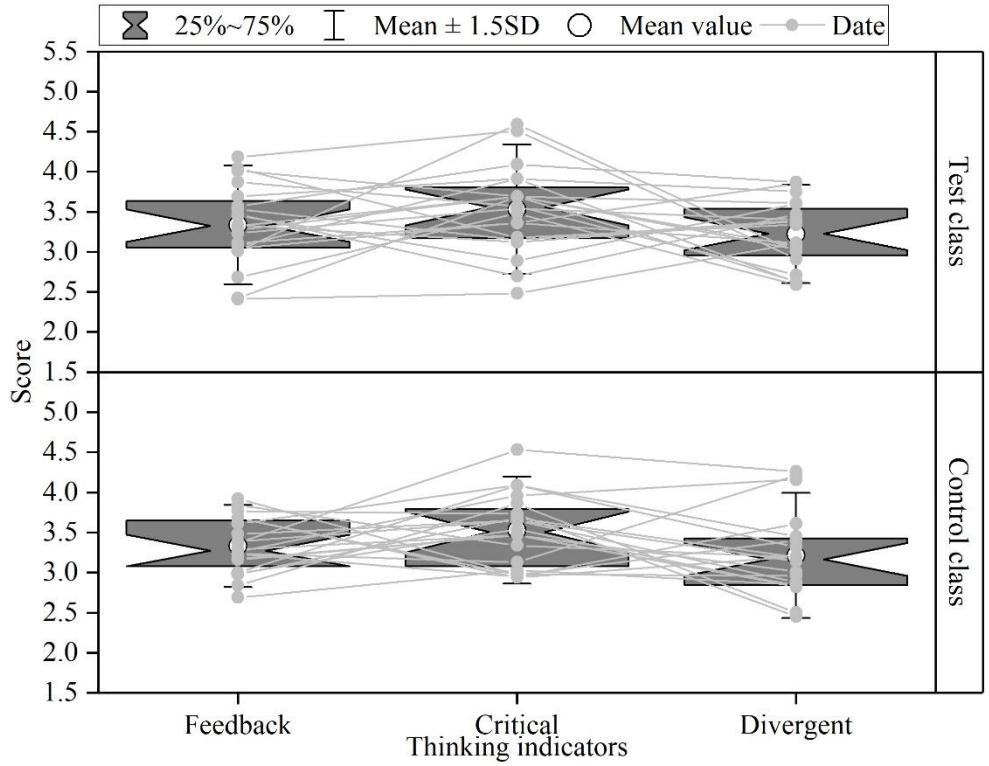

Figure 2: The pre-test of the ability of the students' system thinking ability

The outcome of the posttest analysis of the systematic thinking ability of the students in the experimental and control classes is as shown in Figure 3 below. Using the same scale on the vertical axis, the scores obtained for all the indicators for the systematic thinking ability of the students in the experimental class are much higher compared to those of the students in the control class. This means that the scores for the indicators of systematic thinking ability for the students in the experimental class are higher compared to those of the students in the control class. As shown in Figure 2 above, the scores for the systematic thinking ability indicators for the experimental group students range from 4.34 to 4.70, while those of the control group students range from 3.58 to 3.93. The reason for this phenomenon may be that: in the mode of joint cultivation between the school and the enterprise, the students of experimental class are

good at group discussion during the course of learning “Fundamentals of accounting”. In the process, they are good at organizing their thoughts through group discussions and using methods such as flow charts. In addition, teachers often encourage students to summarize and reflect on the deficiencies in the classroom and to think differently in relation to the actual situation in the enterprise, so these three aspects of thinking ability have been cultivated, which also leads to the significant difference with the students in the control class.

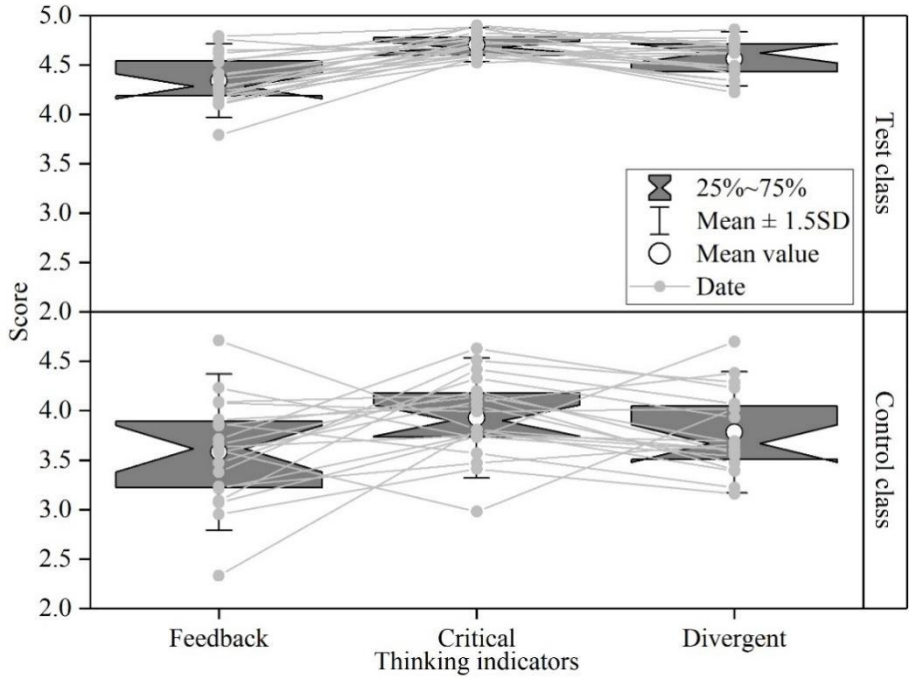

Figure 3: The post-test of the ability of the students' system thinking ability

4.4 Evaluation of occupational core literacy

This section evaluates the vocational literacy of the students in the experimental and control classes. The vocational literacy questionnaire is mainly composed of four dimensions, namely, professional ethics, professional role competence, job competence and career development awareness, and the options are rated by the five-point Likert scale, and the scores of the options, from smallest to largeest, are respectively “very dissatisfied, dissatisfied, average, relatively satisfied, and very satisfied”. The scores of the options were “very dissatisfied, dissatisfied, average, quite satisfied, very satisfied” in descending order. The questionnaire is used by a number of guidance experts from the practice enterprises of finance and economics to rate the students' professionalism in various dimensions according to their behavioral performance in the practice courses, and the level of the rating can reflect the experts' satisfaction level with the students' professionalism visually.

Collected rating data, through the sample t-test method of statistical processing, to get the results of the professional literacy scores of finance and economics majors as shown in Figure 4. It is evident that students in the experimental class scored higher on average across all vocational literacy metrics than students in the control group. The average score values of experts' cognitive satisfaction with the experimental group students' professional ethics, professional role competence, job competence, and career development awareness presented on the enterprise practice course are 4.68, 4.39, 4.31, and 4.55 respectively, which are 0.73-1.07 points higher than those of the control group.

The findings of the sample t-test indicate that there is a statistically significant difference

between the experimental group and the control group in relation to the differences in professional ethics, professional role competency, job competency, and career development awareness, with $p < 0.05$. This demonstrates that the cooperative training approach between educational institutions and businesses, which is based on the OBE theory presented in this paper, not only improves students' comprehension of the fundamental professional traits, but it also provides advice on how to develop these traits in students and makes it easier to integrate the development of finance and economics talent with industry demands.

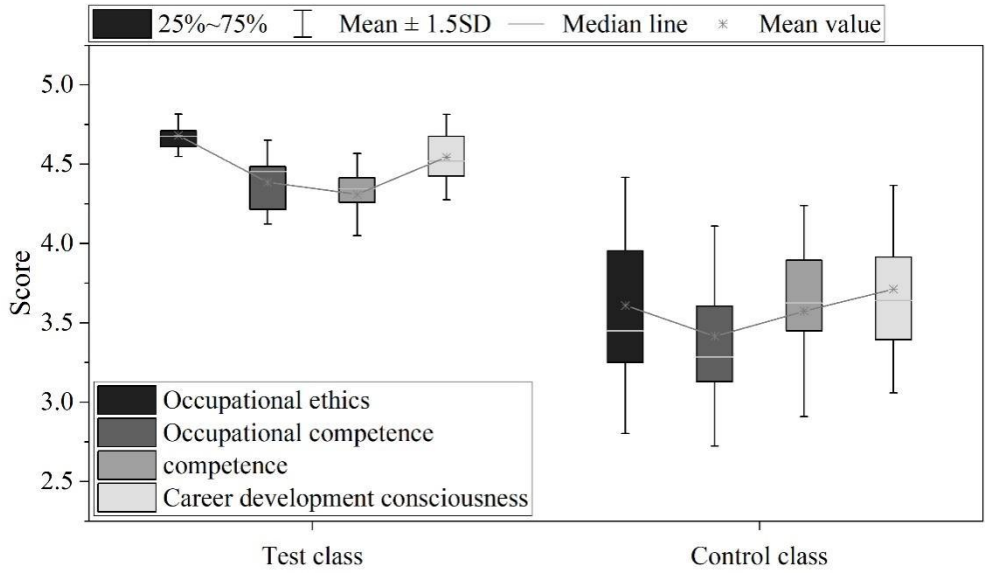

Figure 4: The professional literacy scores of financial majors

4.5 Joint Training Satisfaction Survey

In order to be clear about the attitudes of the students in the experimental class towards the different stages of this teaching mode, a survey on the satisfaction of the cultivation mode was conducted after the course teaching. The sample t-test was collected and utilized to count the questionnaires of satisfaction with the cultivation mode, and the mean values of the four dimensions of expected learning outcomes, teaching process, learning evaluation, and competence enhancement were categorized and summarized. Figure 5 demonstrates the results of the survey on the satisfaction of the joint school-enterprise cultivation mode under the OBE concept. It can be observed that students in the experimental class highly recognize the average satisfaction of the four dimensions of expected learning outcomes, teaching activities, learning evaluation, and competence enhancement are all more than 4.2 points, and the satisfaction is satisfied or very satisfied, and among these dimensions, students' average satisfaction of competence enhancement reaches 4.79, which scores the highest among several dimensions.

The overall goal of the school-enterprise joint cultivation model under the OBE concept is clear, and the teacher indicates the learning objectives, announces the evaluation details of the cultivation tasks and explains the requirements of each step of the tasks before each class, which brings more directions to students' learning. At the same time, the instructional design can effectively help students master accounting management skills and make them actively participate in the class. Students think that the overall evaluation design of the course teaching is fair, reasonable and objective, which meets their expected goals and reflects their actual learning level. In addition, after a period of practical training and learning in the enterprise, students' abilities and professional qualities have been effectively improved, especially their professionalism.

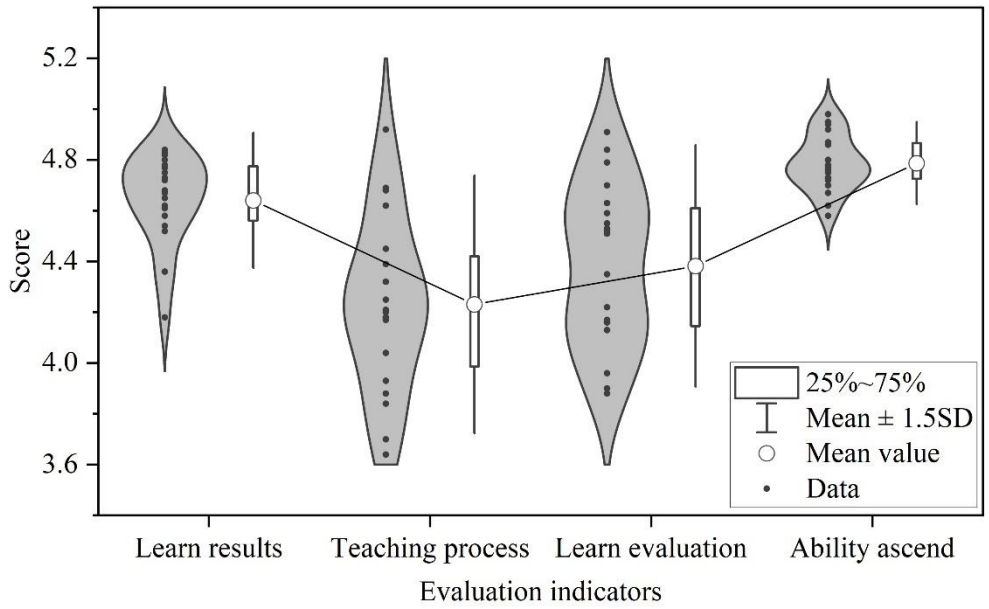

Figure 5: The results of the joint training model satisfaction survey

5 Conclusion

In light of the OBE principle, this study suggests a four-stage talent development model for finance and economics majors through collaboration between educational institutions and businesses: establishing goals for talent development, figuring out graduation requirements, breaking down the index points of graduation requirements, and creating professional courses. Simultaneously, a teaching experiment plan is developed to check the degree of integration of the training model and industry demands by calculating the difference between the teaching impacts of the experimental group and control group using the sample t-test technique. Students in the experimental group engaged fully in class interactions and scored more than 4 points in every classroom conduct in the school-enterprise cooperative talent development mode under the OBE principle. The average score of the comprehensive test after class for the Fundamentals of Accounting Course of students in the experimental group was 85.22, exceeding the average score of the control group by 7.67 points. Moreover, the scores of feedback comprehension, critical thinking, and divergent thinking of the students in the experimental group were higher than the students in the control group, with a significant difference at $p < 0.05$. With regard to the core vocational literacy, the average scores of students in the experimental group in each indicator increased by 0.73 to 1.07 points from the control group, and there was a more thorough understanding of core vocational literacy. Students' satisfaction with the school-enterprise joint cultivation model in this paper is high, and students gained in learning outcomes, teaching process, learning evaluation, and ability enhancement.

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About the Author

Yu Zhai was born in Nanyang, Henan Province, China in 1986. She holds a master's degree from Hainan University. Currently, she serves as an associate professor at the School of Finance and Economics, Hainan Vocational University of Science and Technology. Her research focuses on regional economics and international trade.

Yanbo Li was born in Baicheng, Jilin Province, China in 1979. She holds a master's degree from Liaoning Petrochemical University. Currently, she serves as an associate professor at the School of Financial Management, Hainan College of Economics and Business. Her research focuses on regional economics, financial management, and tax planning.

Ke Wang was born in Haikou, Hainan Province, China in 1990. He holds a master's degree from Rizal University, Philippines. Currently, he serves as a lecturer at the School of Maritime Studies, Hainan Vocational University of Science and Technology. His research focuses on business administration and logistics management.

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