

Research on engineering cost personnel training based on job demand

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Abstract: with the gradual development of the field of construction engineering, the ability requirements of enterprises for engineering cost talents are gradually increasing. As a form of employment oriented education, higher vocational education should pay attention to the connection between school education and the development of construction engineering field, and increase the exploration of the new engineering cost talent training mode based on the job demand, so as to provide more powerful talent support for regional economic development. Based on this, this paper first analyzes the characteristics of the construction cost course, and then combined with the author's practical experience and job requirements, studies the current situation and improvement strategies of engineering cost talent training, in order to provide some reference for colleagues.

Key words: job demand; Project cost; personnel training

The improvement of professional talent demand standards has brought new opportunities and challenges to the development of higher vocational colleges. In the process of constructing the engineering cost course in higher vocational colleges, we should explore the new talent training mode based on the post demand, and reflect the "post demand" into the whole process of talent training. As a teacher, we should understand the characteristics of the course of construction engineering cost in higher vocational colleges, and explore new teaching strategies combined with the current actual talent training problems.

1. Characteristics of construction engineering cost course in Higher Vocational Colleges

1.1 Various teaching contents

Compared with other courses, the construction cost course in Higher Vocational Colleges covers a wide range of knowledge, including architectural engineering drawing and map reading, building structure, building construction technology, construction engineering measurement and valuation, construction engineering bidding, construction engineering cost management, BIM software application and so on, It puts forward higher requirements for teachers' ability to control the teaching content.

1.2 Strong practicality of the course

The purpose of setting up the course of construction engineering cost in higher vocational colleges is to enable students to learn and master the corresponding professional ability based on the course, and form the professional quality required to independently undertake all the work of the preparation and management of construction engineering cost. Therefore, the course is highly practical and needs to arrange a large number of practical learning contents for students.

1.3 Rapid knowledge updating

Higher vocational education is employment oriented, and it cultivates technical talents according to the specific job requirements. Moreover, the construction cost is closely related to national and local norms, so the knowledge involved in the course content is updated rapidly. In the actual teaching, teachers should pay attention to the reconstruction of teaching content in combination with the update and change of norms to help students better prepare for employment.

2. Analysis on the current situation of engineering cost personnel training based on job requirements

2.1 Backward teaching methods

Compared with other courses in higher vocational education, the construction engineering cost course involves more professional knowledge, and students' learning is more difficult. However, some teachers still stick to the old and backward teaching methods and often force students to accept knowledge unilaterally through "indoctrination teaching", which significantly affects the improvement of students' learning interest and learning quality. The backward teaching methods make students feel that classroom learning is boring and boring, and it is difficult to complete the active construction of knowledge under the guidance and Inspiration of teachers.

2.2 The connection between school education and employment needs needs to be improved

For a long time, some higher vocational education has failed to effectively highlight the talent training characteristics of higher vocational education by using the talent training mode of ordinary colleges and universities for reference. In this case, students are still incompetent after learning the project cost course, and still need a long time to adapt to the job. In the process of engineering cost personnel training, teachers should pay attention to the disconnection between school education and employment demand, further reduce the waste of educational resources and students' time, and guide students to learn engineering cost knowledge and skills consistent with the actual job demand.

2.3 The cognition of the course is biased

Some higher vocational schools copy the teaching methods of the Construction Cost Specialty of ordinary universities, ignoring the career planning of higher vocational students and the positioning of higher vocational education, which makes it difficult for teachers to accurately grasp the key and difficult points of the construction cost course, and affects the improvement of teaching effectiveness. In

addition, some higher vocational colleges lack due attention to the course of construction engineering cost, lack of funds invested in the course construction, and the construction level of teaching staff is uneven, which hinders the reform of the training mode of engineering cost talents.

3. Training strategy of engineering cost talents based on job demand

3.1 Supplement and adjust the teaching content to improve the quality of personnel training

After the implementation of the “Specification for bill of quantities of construction projects”, the valuation method of bill of quantities must be adopted in the bidding and tendering process of projects in China. When cultivating engineering cost talents in higher vocational colleges, we should fully consider the change of post demand, clarify the positioning of talent training, and timely supplement and adjust the teaching content. In other words, teachers should fully consider the needs of social development for construction engineering cost talents, and change teaching methods according to the actual job requirements. For example, when cultivating engineering cost talents, we can draw up a set of curriculum syllabus that is suitable for the talent training objectives in combination with the post demand analysis results, and expand the teaching content based on the syllabus, so as to effectively broaden students’ knowledge, help them master the bill of quantities pricing method, and adapt to the working environment of relevant posts. At the same time, the innovation of teaching methods should also reflect the characteristics of talent training in higher vocational colleges, clarify the direction of curriculum reform according to the needs of improving students’ practical ability, supplement and adjust the practical teaching content, so as to strengthen students’ employment advantage. Specifically, the practical teaching content needs to include construction cost software training, engineering drawing reading construction, implementation, construction engineering budget, etc., so as to help students prepare for bidding and quotation.

3.2 Strengthen practical teaching and promote the connection with employment needs

First of all, the project cost course is highly practical. In the process of teaching strategy innovation, we need to pay attention to a large number of easy to understand cases, and the intuitive teaching situation constructed by these cases can help students learn knowledge from the perspective of “use”. Especially in the teaching of engineering measurement and calculation, we should be good at building teaching situations and learning tasks for students with the help of illustration and engineering algorithm application scenarios, so as to guide them to master the method of calculating engineering quantities relying on specific calculation practice activities. At the same time, teachers should also pay attention to integrating some relatively simple engineering examples into the design of after-school homework, so that students can use the knowledge they have learned to complete some project engineering calculation tasks, and then help them consolidate what they have learned in class and internalize relevant knowledge and skills into practical ability. Secondly, teachers should select the representative construction drawings in the actual construction process when carrying out practical teaching, and use them to simulate the real engineering environment for students to exercise their knowledge application ability. For example, teachers can choose a two-tier architecture housing project, according to which they can make a budget table and guide them to complete the learning task in the simulated project cost scenario. Thirdly, teachers should appropriately insert more students’ autonomous learning links in the process of practical teaching, guide them to explore relevant knowledge points independently, and improve their ability to independently prepare a complete construction budget.

3.3 Integrate project learning to improve practical ability

In view of the high practicality of this course, teachers should pay attention to guiding students to carry out project-based learning when innovating the training strategy of engineering cost talents, and urge them to carry out independent exploration and practice combined with specific projects. First of all, teachers need to design project tasks for students in combination with the application scenarios of teaching content and knowledge, so that students can carry out inquiry learning driven by tasks, so as to improve students’ learning initiative. Project teaching emphasizes the working process and highlights the main role of students, which is an effective way to improve the teaching mode and promote students’ autonomous learning. Secondly, teachers should organize students to discuss relevant issues before they start the project, and help them clarify the ideas and standards for the completion of the project; In the process of students’ project practice, combined with the students’ learning status and the feedback information, corresponding learning guidance methods are adopted to ensure that they avoid detours in the process of completing the project work. Special attention should be paid to checking the implementation plan of students after the start of students’ project work and before the formal budget, so as to encourage them to find out the unreasonable points and make adjustments. In the whole process of project-based learning, students can find and solve problems independently, which can quickly improve their practical ability.

3.4 Strengthen multimedia teaching and improve learning experience

Teaching methods affect the quality and effect of classroom teaching to a great extent. In the process of exploring the training strategy of new engineering cost talents based on the job demand, we should pay attention to the application of new teaching technology. Among them, the application of multimedia teaching has a particularly significant impact on the training mode of engineering cost talents. Teachers can use it to effectively improve students’ learning process and state, and enhance students’ learning experience. In the course of engineering cost, a large number of contents about quota valuation and bill of quantities valuation are designed, which has high requirements on students’ logical thinking ability, spatial imagination ability and mathematical operation ability. Changing students’ learning process and methods through multimedia teaching can reduce their learning difficulty and improve their learning fun. When constructing the classroom, we should give full play to the advantages of multimedia teaching, such as fast speed, more teaching information and good effect. For example, teachers can make micro Lecture Resources for the key and difficult content of measurement and valuation to assist students in preview activities. Students preview knowledge before class, and form a general understanding of the teaching content before formal teaching, and

then strengthen and extend it through classroom learning to achieve better learning effect. At the same time, teachers can also guide students' learning in combination with micro lessons after teaching, such as introducing actual cases through micro lessons to guide students to understand the application conditions and application process of relevant knowledge points in combination with actual cases.

3.5 Strengthen school enterprise cooperation and improve the quality of off campus training teaching

After entering the new era, the process of transformation and upgrading in various fields has accelerated, and it is no longer just the size of the scale that determines the survival space of enterprises. In the process of pursuing greater market competitive advantage, enterprises need to pay more attention to their own development speed and master the cutting-edge development concept and production technology. The cultivation of engineering cost talents in higher vocational colleges should actively adapt to the market demand in the new period, and help students master the work concept and professional skills consistent with the actual work demand by strengthening the cooperation between colleges and enterprises, and promoting the off campus training teaching. First of all, higher vocational colleges should widely apply the concept of integration of production and education to the training process of engineering cost talents, strengthen the construction of students' practical learning field, and create better conditions for the development of their own practical ability. Secondly, higher vocational colleges should actively strive for the support of relevant vocational education management departments, promote school enterprise cooperation based on policy guidance, and improve the quality of off campus training teaching. With the guidance and assistance of policies, the work of Higher Vocational Colleges in the integration and construction of teaching resources will be more smooth. Thirdly, higher vocational colleges should actively broaden the channels of communication with enterprises, comprehensively apply the traditional communication platform and modern digital platform, so as to share teaching data, and jointly discuss the teaching mode of off campus training. At the same time, these modern digital platforms are also channels for higher vocational colleges to show confidence and talent cultivation advantages to employers, which is conducive to enterprises' understanding of the quality of talent cultivation of engineering cost, and can strive for more high-quality employment opportunities for students.

Epilogue

In a word, in the specific training of engineering cost talents in higher vocational colleges, we should fully consider the job demand and constantly promote the mutual connection between school education and job work content. Specific to the teaching practice, teachers should accurately grasp the characteristics of the construction engineering cost course in higher vocational colleges, supplement and adjust the teaching content in combination with the analysis results of the current situation of talent cultivation, strengthen the practical teaching and multimedia teaching, integrate into the project learning link, and deepen the cooperation between schools and enterprises, so as to promote the integration of high-quality educational resources and provide better learning conditions for students' development of professional quality.

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