

Research on Application-Oriented Talent Training Under Production-Learning-Research Teaching Mode

Ziyan Zhang¹, Zhe Yang^{2*}

¹School of Creative Design, Hainan Tropical Ocean University, Sanya, China

²School of Tourism, Hainan Tropical Ocean University, Sanya, China

*Corresponding author Email: zyang20202020@163.com@163.com

ABSTRACT

Production-Learning-Research cooperation is a new form of education in today's society. It combines universities, enterprises and some scientific research institutions, using different educational resources to cultivate professional and practical talents needed by society, and helping college students directly gain practical experience in the process of learning, digesting, and transferring knowledge, so as to solve the problem that school Learning knowledge cannot meet the needs of society, to narrow the gap between school and society in talent training, and improve students' competitiveness in society. This article will mainly analyze the cultivation of applied talents under the education model of industry, university and research.

Keywords: *Production-Learning-Research, Talent Training, Investigation and Practice*

1. INTRODUCTION

No matter how severe the impact of the epidemic on domestic and foreign markets, college students remain the most important component of China's urban and rural economic development. Therefore, in the teaching process, with the help of the industry-university-research cooperation model, it can build a bridge for schools and enterprises to realize mutual assistance. Enterprises can transfer their high-quality resources to college students to help them clarify their direction and set goals, and encourage them to contribute to the society through the technology they have learned, thus promoting the development of local economy^[1]. At the same time, it can also explore talents who can be displayed for the development of enterprises, end the embarrassing situation that college students face unemployment after graduation, provide efficient resources for the society, train outstanding talents for enterprises, and establish a correct outlook on life for college students.

2. SIGNIFICANCE OF PRODUCTION-STUDY-RESEARCH EDUCATION MODEL

Production-Study-Research refers to the educational model that organically combines production, teaching and scientific research. It is an education model produced by contemporary universities, engineering

training centers and enterprises to solve problems together. For example, how to train talents and carry out scientific research in the field of science and technology can be well reflected in the mode of production, education and research. College students can cultivate their way of thinking, practical ability and innovative spirit through the process of practice, and then apply these technological research achievements in technological innovation^[2].

3. PROCEDURE AND CLASSIFICATION OF PRODUCTION-LEARNING-RESEARCH MODE

3.1 Production-learning-Research mode Procedure

Colleges and universities have to train more applied talents, improve the connotation and quality of talents, adapt the demand of modern economic and social development, integrate social resources and resources in universities and colleges, combine production and research together effectively, in order to form the modern industry-university-institute cooperation education mode^[3]. The general modern teaching mode of production, learning and research is mainly divided into the following points:

Table 1 Procedure and content of production-university-research projects implementation

Procedure	Content
Formulate school-enterprise cooperation projects	Provide collaborative projects through the cooperation between universities and enterprises, guide students to design by the leading of professional teachers.
Propose cooperation project requirements	Put forward the cooperative project requirements for enterprises efficiently, put forward specific project design requirements, enhance the competitiveness of the project in the market.
Build a project team	The project team should be composed by teachers and students related to the project. The teachers select students with strong professional fields to undertake the project tasks, and the teachers are responsible for the guidance during the process.
Project implementation	Analysis of project requirements, design scheme; Formulate specific project implementation plan; Do further screening scheme, and submit to the enterprise; Receive feedback, according to the modification of the scheme; Improve the selected scheme; Submit completed projects to the enterprise for final determination; Conclude the project.

3.2 Production-university-research teaching mode method classification

Production-university-research cooperation mode is between enterprises and universities; In daily practice, a

specific teaching program formed to achieve the common development goals of both sides has produced different education models [4], but there are advantages and disadvantages among different models, mainly as shown in Table 2.

Table 2 Classification of Production-university-research project

Mode type	Advantages	Disadvantages
School-inside mode	convenient for management planning, transfer project research results into products, strength the communication between universities and enterprises, create more employment opportunities for students	Lack of market practicality, and certain limitations
Two-way joint cooperation mode	Simple and convenient, result-oriented, complement with each other.	Easily lead to conflicts, lower success rate of cooperation
Multi-directional joint cooperation mode	Resource sharing, huge potential of creativity	Seek to big market and scale profit, potential high risk problem
Intermediary cooperation mode	To collect and receive information, remove difference, equitable division of interest, lower stakeholders' risk	Have to communicate with intermediary, may cause postponement of information

4. THE PRACTICAL EFFECT OF PRODUCTION-UNIVERSITY-RESEARCH EDUCATION MODE

4.1 The cultivation of students' ability

At present, Universities widely cultivate the students' practical ability by using the experiment-practice mode. However, in order to adapt their future job, students should have solid foundation of knowledge. The production-university-research mode

could motivate the enthusiasm of college students through different competitions. Students could also find their limitations in the process of competitions, enhance learning awareness and other basic capacity [5]. According to the statistics of iResearch, there are more than 100 kinds of science and technology competitions for college students, of which 148 are C-type projects (production-university-research mode). Students improve their practically effectively by attending different scientific research competition items.

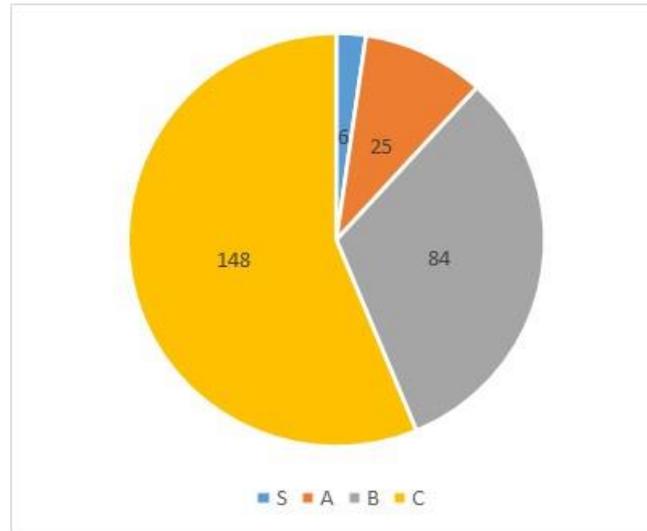


Figure 1 National college students' science and technology innovation project in 2019

4.2 The increase of scientific research innovation

The combination of industry, education and research can promote each other. In order to attract the attention and favor of enterprises under the mode of production, education and research, universities should first improve their scientific research ability. Only by paying attention to the current social needs and the development trend of scientific research, colleges and universities can attract the attention of relevant enterprises, and on this basis, to complete universities' social function.

To a certain extent, improving social service is the embodiment of the social function of colleges and universities. In addition, the emergence of enterprises and training centers can broaden the horizon of college students and make them fully exposed to some new ideas and new thinking outside the school.

4.3 The improvement of teaching standards

College teachers only need to control the general direction of college students' values. In terms of the details of college students' scientific research and development, colleges and universities should encourage students' innovative thinking as much as possible, improve their scientific research and innovation ability and achievements, and finally attract more enterprises' attention and positive cooperation. In the process of combining production, learning and research, college teachers can integrate teaching, production, scientific research, training and other aspects into one, so as to truly cultivate research-oriented and application-oriented teaching talents. The company's engineers, as well as the technical staff of the engineering training center, also played a crucial role. In order to solve the problem of campus lecturers' fixed thinking pattern and narrow vision in traditional university teaching, university lecturers must pass the enterprise teachers' ability

certification before they can guide specialized courses. At the same time, enterprise engineers also become a member of the school on campus. Through the process of experts entering the campus, enterprise engineers can participate in the teaching management and various activities of the school, so that they have certain management ability and cultivation ability. This result can not only enrich the teaching resources of the school, but also improve the ability of engineer training, so as to find high-quality reserve talents for enterprises [6].

5. CONCLUSION

In a conclusion, in the modern society, education mode of production is popular, it plays a good role in promoting for enterprises, universities and students, help students to improve innovation ability, at the same time it also can form a complementary resources between colleges and enterprises, and it is giving full play to the advantages of talent advantage of colleges and universities and the practice of the enterprise, it is committed to develop more social development need of practical talents, promote common development of enterprises, universities and students.

AUTHOR

Ziyan Zhang, Ph.D., School of Creative Design, Hainan Tropical Ocean University.

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