

# Research on Collaborative Training Mechanism of Prefabricated Construction Talents in Higher Vocational Colleges under the Background of Integration of Production and Education

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**Abstract:** With the rapid development of the construction industry, prefabricated building, as a new building mode, has significant advantages such as high efficiency, environmental protection and sustainability. However, the promotion and development of this new building mode needs a large number of high-quality technical skills as support. Based on the integration of production and education, this paper discusses the cooperative training mechanism of prefabricated construction talents in higher vocational colleges, in order to provide useful reference for improving the quality of talent training.

**Keywords:** Integration of Production and Education; Higher Vocational Education; Prefabricated Building; Collaborative Training of Talents.

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## 1. Introduction

With the prosperity and development of the construction industry, prefabricated buildings, as a new building mode, have gradually attracted wide attention. With its advantages of high efficiency, environmental protection, and sustainability, this building mode has become an important development direction of the future construction industry. However, the development of prefabricated buildings is inseparable from the support of a large number of high-quality technical skills, which is particularly critical for the construction industry in our country.

The integration of industry and education is a training mode that combines industry and education. Through deep cooperation between schools and enterprises, high-quality talents can be cultivated to meet the market demand. In the field of prefabricated buildings, the training mode of the integration of production and education is also of great significance. Through close cooperation between schools and enterprises, we can better combine theoretical knowledge with practical skills, cultivate more high-quality technical skills and talents, and provide strong support for the development of prefabricated buildings in our country.

With the background of the integration of production and education, this paper profoundly discusses the cooperative training mechanism of prefabricated construction talents in higher vocational colleges. Through the in-depth cooperation of school-enterprise coordination, we can jointly develop talent training programs, optimize curriculum Settings, improve the construction of practical training bases, and constantly improve the quality of talent training. At the same time, combined with market demand and industry development trends, the goal and direction of talent training are accurately positioned to provide strong support for improving the training quality of China's prefabricated construction talents and the development of China's prefabricated construction.

## 2. The Current Situation of Vocational Prefabricated Construction Personnel Training under the Background of Integration of Production and Education

In the context of the current integration of production and education, the training of prefabricated construction talents in higher vocational colleges is faced with a series of problems.

First of all, there is a severe mismatch between the curriculum and the market demand, which makes it difficult for students to adapt to the needs of positions and work smoothly after graduation. This mismatch may result from the school's lack of sensitivity to the development of the industry and market needs or the lack of close contact with the industry.

Secondly, the link of practical teaching is relatively weak, which leads to the lack of necessary practical experience when students graduate. In higher vocational education, practical teaching is an essential part that can help students apply theoretical knowledge to practice and improve their operational skills. If this link is not done correctly, it will be difficult for students to master the actual operation skills, which will affect their employment competitiveness.

Finally, the low participation of enterprises and the lack of in-depth cooperation with schools have led to the failure of the quality of talent training to reach the expected height. The participation of enterprises is crucial for talent development, as they can provide valuable industry experience and expertise to help students better understand and grasp the latest developments and technologies in the industry. At the same time, through cooperation with enterprises, the school can also better understand the needs of the industry to adjust and improve the curriculum and practical teaching so that talent training is more in line with the market demand.

To solve the current problem of vocational prefabricated construction personnel training, schools, enterprises, and society need to work together. Schools need to connect more closely with the industry, understand the development trends

and demand of the industry, and adjust and improve the teaching curriculum and practical activities. Companies must also be more involved in working with schools to provide more industry experience and resources. Society must also provide more support and encouragement for integrating industry and education and promote deep cooperation between schools and enterprises. Only in this way can we cultivate more excellent prefabricated construction talents and promote the healthy development of the industry.

### 3. Construction of Collaborative Training Mechanism for Prefabricated Construction Talents in Higher Vocational Colleges under the Background of Integration of Production and Education

As the country attaches great importance to the modernization of the construction industry, prefabricated buildings, as an advanced building technology system, are gradually becoming the trend of the development of the construction industry. However, the current shortage of prefabricated construction talents, especially high-quality talents with practical ability and innovative spirit is scarce. Therefore, under the background of the integration of production and education, it is particularly important to establish a collaborative training mechanism for prefabricated construction talents in higher vocational colleges. We mainly carried out our work in the following four areas, as shown in Fig. 1.

#### 3.1. Establish a Talent Training Mechanism for the Linkage of Government, Schools, Banks, and Enterprise

Government, industry, enterprises, and schools should participate in training prefabricated construction talents in higher vocational colleges. The government should introduce relevant policies to support the cooperation between enterprises and schools and provide financial support. Industry enterprises should deeply participate in the process of talent training and provide practice bases and teachers. Schools should adjust the curriculum, strengthen practical teaching links, and improve the quality of talent training.

#### 3.2. Establish a Modular Curriculum System

According to the characteristics of prefabricated buildings, a modular curriculum system should be established. In the course setting, we should pay attention to the combination of theory and practice to improve students' practical operation ability. At the same time, we should pay attention to the changes in market demand and adjust the curriculum in time to make it more in line with market demand.

#### 3.3. Strengthen Practical Teaching

Practice teaching is an essential link in training prefabricated construction talents in higher vocational colleges. We should strengthen the construction of a practical teaching base and improve students' practical operation ability. At the same time, we should carry out various practical activities, such as skills competitions, social practice, etc., to stimulate students' interest in learning and enthusiasm.

### 3.4. Increase Corporate Engagement

Enterprise is essential in realizing the collaborative training of prefabricated construction talents in higher vocational colleges. The participation of enterprises should be enhanced, and enterprises should be encouraged to cooperate deeply with schools to participate in the talent training process jointly. At the same time, the guarantee mechanism of school-enterprise cooperation should be established to protect the interests and rights of enterprises.



Fig 1. Construction of talent collaborative training mechanism

## 4. Conclusion

With the prosperity and development of the construction industry, prefabricated buildings have gradually become a new building model that has been widely considered. The promotion and development of this building mode require not only advanced technology and equipment but also high-quality technical skills to support it. This paper deeply investigates the current situation and existing problems of the integration of production and education. It analyzes the bottlenecks and challenges in training prefabricated construction talents in higher vocational colleges. Through research and practice, we propose a new collaborative training mechanism that aims to improve the quality and efficiency of talent training and promote the deep integration of production and education. This paper discusses establishing a cooperative training mechanism for prefabricated construction talents in higher vocational colleges. Through an in-depth study of the roles and functions of the government, industry, enterprise, and school, we put forward a talent training mechanism for the government, industry, enterprise, and school. In this mechanism, the government plays a guiding and supporting role, industry enterprises actively participate and provide practical opportunities, and schools are responsible for developing training plans and teaching programs.

## Acknowledgments

The financial support from Zhejiang NAVEC Scientific & Research Project (No. ZJCVB26) and major project of Wenzhou Polytechnic (No. WZYD 202206) are gratefully appreciated.

## References

- [1] Wang Xiaoliang, Guo Xiaojun, WANG Jia. Research on the status quo and countermeasures of prefabricated construction personnel training [J]. Education Modernization, 2019(8): 14-16. (In Chinese)

- [2] Sun Zhiwei, Wang Yu. Research on talent training of prefabricated buildings in Higher vocational Colleges under the background of integration of production and Education [J]. Education Modernization, 2020(11): 50-52.(In Chinese)
- [3] Zheng Yang, Zhang Changjuan. Research and practice on talent training model of prefabricated architecture [J]. Educational Research, 2021(4): 70-73.(In Chinese)
- [4] Zhou Xicheng. Research on the Characteristics and development of prefabricated buildings [J]. Architecture and Budget, 2020(3): 19-24.(In Chinese)
- [5] Wang Ligu, Qiao Xuesong, WANG Jihua. Advantages of prefabricated building and its Application prospect in Construction Industry [J]. Architectural Engineering Technology and Design, 2019(11): 34-38.(In Chinese)
- [6] Liu Zhiqiang, Research on Design and Construction Technology of prefabricated Buildings [J]. Science and Technology Innovation Herald, 2018(18): 69-74.(In Chinese)
- [7] Li Ming, Wang Di, Ma Chong. Research on the development status and trend of prefabricated buildings [J]. Building Structures, 2021(2): 45-50.(In Chinese)
- [8] Chen Ning, WANG Xiaoliang, Wang Xuesong. Advantages of prefabricated architecture and its application prospect in urban architecture [J]. Architectural Engineering Technology and Design, 2020(6): 89-94. (In Chinese)