

# *Research and Practice of Third-order Progressive Talent Training Path Based on Innovation Ability Training*

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**Keywords:** Innovation ability, talent training, integration of industry and education, vocational education

**Abstract:** Based on the integration of industry and education, taking the cultivation of innovative ability of higher vocational electromechanical students as the research object, the school and enterprise cooperate to educate together, through the innovative training idea of "strong classroom consciousness, creative development, community experience, post seeking effect, transformation and promotion ", To explore the comprehensive development of equipment manufacturing industry and regional economic development of moral, intellectual, physical and labor complex innovative talent training path for students to become creators on campus, innovation in enterprise posts, use of achievements to start a business, to achieve a new breakthrough.

## 1. Main significance of the research

First, build a curriculum system of innovative talent training , and implement the curriculum reform of " double embedded projects " of innovative courses and professional courses .By embedding professional innovation cases from enterprise post innovation project development in the innovation curriculum , add curriculum reforms such as innovation practice modules in the professional core courses , enhance students' innovation consciousness training , and consolidate the foundation of students' innovation .

Second, build a third - order training path of progressive innovative technical and skilled talents of " campus maker training , post innovation practice , achievements and post transformation " .Pay attention to the cultivation of professional basic innovation ability and personalized development , through the post practice - project innovation alternately , and gradually improve the professional innovation ability training structure .

Third , explore new ideas to improve teachers' innovation ability guidance .Guiding teachers through guiding professional community innovation activities , teachers' corporate post practice , participate in enterprise scientific and technological innovation and technological breakthroughs , teaching is long , constantly improve their innovation ability , and improve the guidance of students' post innovation .

### 1.1. Practical significance

First, through the cultivation of innovation awareness , students enhance their learning initiative and excel in various national and provincial college student competitions ; by participating in innovation associations and enterprise technology innovation , students connect more closely with cutting - edge technology , and significantly improve their professional innovation ability and effectiveness .

Second, to build a double - teacher teaching team , to enhance the teachers' guidance ability .Guide teachers to participate in the guidance of student innovation activities , learn from each other , jointly participate in the research and development of enterprise technology projects , enrich the industrial work experience of professional teachers , improve their practical teaching ability , and guide teachers to better serve the industry .

Third, promote professional construction , enhance professional influence . Through enterprise cases into the textbook and curriculum , school and enterprises jointly develop live page textbooks embedded in innovative elements , jointly carry out teaching mode reform and evaluation mode reform , effectively promote the " three education reform " , promote the professional construction , and enhance the influence of the whole major in the industry .

## 2. Specific contents

Construction of the Third - Level Progressive Innovation and Entrepreneurship Talent Training Mode of 1. "Campus Maker Post Innovation Achievements Transformation "

"Campus maker post innovation transformation " third order progressive talent training mode to employment oriented , engineering alternately , through the campus maker training , enterprise complete job innovation practice , support excellent innovation project achievement transformation mode , explore the " skill foundation , innovation efficiency " create progressive teaching mode .

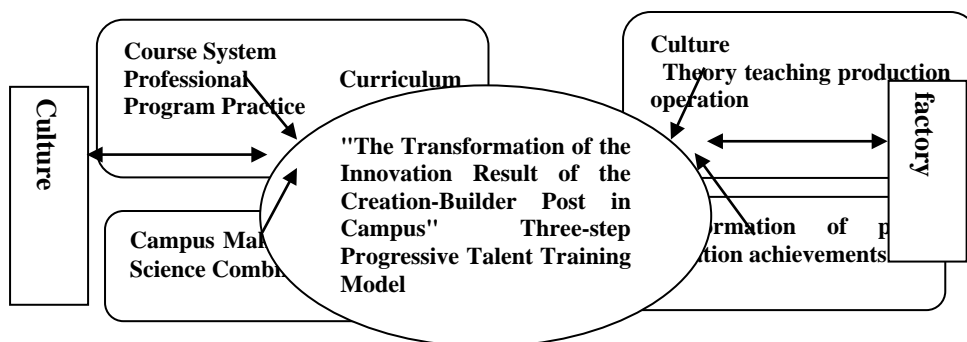


Fig 1: Third Progressive Innovation and Entrepreneurship Training Model

The implementation path innovation of "creating guest education as the guide, post innovation seeking practical effect, achievement transformation promoting promotion" skill innovation talent training

(1) Basic training and upgrading of professional skills.

Establish student professional associations of different types and directions, such as mechanical and electrical product innovation, industrial robot ,3 D printing, etc., and implement the "five yuan complementary" innovation ability enhancement project of students' active participation in "one professional association, one innovation research, one creative design, one innovation project, one innovation competition ", create a strong innovation atmosphere, consolidate students' innovation foundation, and enhance students' innovation consciousness and subjective initiative.

(2) Cooperation between schools and enterprises to cultivate students' post innovation ability.

Follow up with the development of new engineering, the integration of production and education, the establishment of school-enterprise collaborative innovation workstation, the development of innovative talent school-enterprise co-education, teachers and staff collaborative innovation and other cooperation, innovation projects from the selection of topics, team formation, process implementation, results acceptance to the transformation of results, by the school-enterprise collaborative innovation workstation coordination, the implementation of three-level linkage, hierarchical docking, step-by-step implementation, to ensure the training path through the three-section. The double tutors guide the students to carry on the enterprise post project innovation practice, through the post practice-project innovation alternately, promotes the specialized innovation ability training systematization.

(3) Transformation of achievements to enhance students' innovative and entrepreneurial ability.

From the beginning of sophomore year, students enter the teaching mode of combining research and use, set up "project studio" according to students' specialty, participate in commercial projects, carry out independent accounting of projects, carry out "entrepreneurship incubation", and carry out entrepreneurship education. Help students realize their entrepreneurial dreams by project support.

Construction of the third-order progressive talent training platform for the transformation of the innovation achievements of the campus creators

Closely around the goal of industrial development in Shandong Province and Weifang City, combined with the orientation and characteristics of the school, aiming at the emerging industries, taking the Internet and industrial intelligence as the core, selecting superior cooperative enterprises, deep integration of production and education, Construct the third-order progressive talent training platform.

Construction of the Evaluation System for the Third-order Progressive Personnel Training in the Transformation of the Innovation Achievement of the Campus Creation

The third-order progressive talent training mode of "the transformation of the innovation achievement of the campus creation guest post" enables the enterprise to obtain the talented person, the student obtains the skill, the school obtains the development. High quality talent training goal needs multiple talent evaluation guarantee, curriculum evaluation, practice evaluation, post innovation evaluation, combined with "1 X" certificate pilot, to build an enterprise-oriented, school participation in the whole process of the effect evaluation system.

### **3. Research objectives of the project**

The five-yuan complement each other to consolidate the foundation of students' innovation.

According to the idea of "strong classroom consciousness, creative development, community experience, competition effectiveness", students actively participate in "a professional community, an innovative research, a creative design, an innovative project, an innovative competition" innovation ability enhancement project, multi-measures simultaneously, inspire innovative thinking, cultivate campus creators, lay the foundation for post practice innovation. Cooperation between schools and enterprises to build innovative capacity development path.

Following the development of the industry, the integration of industry and education, the establishment of cooperative innovation workstations between schools and enterprises, the development of cooperation between schools and enterprises of innovative talents, teachers and staff, etc.

To improve students' ability of professional innovation.

Take the enterprise post as the platform, implements "the skill foundation foundation, the innovation raises the effect" the project specialized teaching. To lay the foundation of professional ability by skill training, to improve the effect of professional ability training by post innovation and achievement transformation, to train innovative skilled personnel by integrating skills and innovation, innovation and transformation.

Evaluation of incentives to stimulate the motivation of innovation.

Establish perfect management system of community, science and technology reward method, skill competition reward method, guest space management method, campus guest evaluation and credit replacement management method, etc., evaluate incentive, interest guidance, classification training, dynamic adjustment, enhance students' innovative consciousness and enhance students' enthusiasm for innovation.

#### 4. Conclusion

The project research is to serve the transformation of new and old kinetic energy in Shandong Province, to explore a "campus creative post innovation achievements transformation" of innovative entrepreneurial talent training path, in cooperative enterprises to promote, For cooperative enterprise staff training, technological innovation to provide reference ways and ideas. To lead the reform of innovative talents training mode, to inject new ideas and new ideas into the reform of innovative talents training mode in schools and enterprises, and to provide talent support for the development of innovative society.

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