

# Research on the construction of talent training mode of Architecture Specialty in Higher Vocational Colleges from the perspective of professional innovation integration

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**Abstract:** Higher Vocational Education of architecture is closely related to China's national economy. It is highly practical and is an important part of higher vocational education. The training of architecture talents in Higher Vocational Colleges affects the quality of the development of China's construction industry, so it is important to improve the training mode of architecture talents in higher vocational colleges. This paper analyzes the characteristics of the talent training of architecture majors in higher vocational colleges, and practices the development of the talent training mode of architecture majors based on the concept of "integration of expertise and innovation", so as to provide guarantee for the output of high skilled talents in the construction industry in the new era.

**Key words:** higher vocational education; Construction works; Integration of expertise and innovation; General education; innovate

## 1. The connotation of the concept of talent training based on the integration of specialty and innovation

In 2018, the Ministry of Education put forward the plan of high-level development and construction of education, aiming to cultivate more high-quality talents for major industries in the critical period of social transformation. In this context, the state proposes to further strengthen the mutual integration of subject teaching and innovation and entrepreneurship education based on professional education, which is the need for the development of China's higher education. Professional education is the basis for students' growth and success. Innovation and entrepreneurship education is an important entry point for China's higher education reform in the new era. The "integration of professional education and entrepreneurship" not only helps to improve the comprehensive competitiveness of colleges, but also helps to promote talent cultivation and economic development.

At this stage, the development of various innovation and entrepreneurship projects and competitions in Higher Vocational Colleges provides opportunities for students to participate in professional practice and demonstrate their professional ability and innovation ability. However, although the innovation and entrepreneurship courses are widely carried out, they attach importance to the teaching of theory, ignore the integration with professional courses, and the college education system is not standardized and perfect, which seriously affect the quality of professional talent training. It also affects the quality of innovative talents exported by colleges. The organic combination of professional education and innovation and entrepreneurship education will inject vitality into the current professional education, promote the comprehensive reform of professional education talent training concept and talent training system, promote the high-quality development of higher education, and boost the development of China's innovative economy.

## 2. On the cultivation of architecture talents in Higher Vocational Colleges

### 2.1 Shortage of excellent teachers in construction industry

At present, higher vocational colleges are in short supply of senior talents in architecture education, especially those who master intelligent construction, international legal knowledge and modern concepts. The development of the construction industry puts forward higher requirements for our teachers. Colleges need excellent teachers who have rich practical experience and master the cutting-edge knowledge and concepts of the industry. These teachers are mainly from the business community, At present, the traditional school enterprise cooperation is not ideal in solving the two-way flow of teachers. Business mentors have a short time to attend classes, mainly lectures, which has limited effect. colleges prefer high-level talents from the business community to take long-term teaching posts in colleges, but there are not many applicants. At present, it is difficult for colleges to introduce excellent talents, In particular, senior professionals who have worked in industry and enterprises for more than 5 years have low willingness to work in colleges. they are not willing to work in colleges. According to the survey, 86.3% of the respondents believe that the income in enterprises is high, and the salary in colleges is not attractive enough. 68.7% of the respondents believe that the scientific research environment in higher vocational colleges is poor, and the current personnel management system and teaching system are not conducive to their innovation and entrepreneurship activities.

### 2.2 The traditional education mode is backward

At present, in higher vocational colleges that have opened engineering and technology majors, their professional talent training plans generally follow the training methods of traditional colleges, adopt courses similar to those of undergraduate colleges, but abandon some courses, resulting in students' lack of basic ability, lack of accurate grasp of market demand, and lack of dynamic tracking and positioning of talent demand, And accurately analyze and grasp the internal job demand of the target enterprise. College A is no exception. The curriculum in school is lack of innovation and pertinence. In addition, the quality of architectural talent training is not only reflected in the stage of job hunting, but also within one to three years after graduates' employment. Their learning ability and adaptability reflect the training level in the early period of school, so there is still a lack of tracking research on graduates, and they can not master the feedback of talent training in the later period.

At present, College A sets the basic graduation conditions for engineering students as follows: an English certificate + a computer certificate + a skill certificate. For skill certificates, some courses in several majors in the college are just the same with X certificates in the 1+x Certificate System of the Ministry of Education. The X certificate reflects the market and advancement, For a few majors or students who have difficulty in passing the X certificate, a certificate with high recognition in the market, such as CAD Drawing certificate or Interior Designer certificate, which is often issued by some companies or industry associations. According to the current implementation situation, for some colleges that fail to pass the exam and transition, other certificates are used to accommodate, which makes some students inert. Therefore, the effect of education is not good.

### 2.3 Lack of good practice

For professional education, the training goal of higher vocational colleges is to cultivate high skilled and applied talents. However, in the survey, 67.3% of architecture graduates in a school think they have no technical ability. The main performance is that they do not know how to operate - lack of practice. The main reason is the lack of effective practical training during school, The reasons are as follows: first of all, the lack of experimental training facilities in non-professional architectural colleges, and the investment of non-professional architectural colleges in the training facilities required by their architectural majors is much less than that of professional architectural colleges, resulting in poor basic conditions for the practice of teachers and students in such colleges. Secondly, the training course requires a lot of preparation time and maintenance time, which requires the cooperation of other departments and posts, that is to say, it needs to cost more. In addition, due to the excessive concern about the safety of students in the school team, it is difficult to apply to the scene or go out of school to practice in enterprises, which leads to the lack of enthusiasm of full-time teachers to implement complex on-site teaching activities.

A complete professional course of architecture needs a lot of support from production and practice activities, as well as a lot of resource support. Without these support, the practice effect of the course is very poor. According to the survey of students at school, the real production processes such as construction plane design, on-site transportation arrangement, construction site preparation, crane hoisting, high-altitude operation, reinforcement processing and concrete pump truck operation have deeply shocked students, improved their cognitive ability and strengthened their professional cognition. Innovation and entrepreneurship education should be a sublimation based on professional education and practice. However, the current practice education in colleges is not enough to provide basic power for innovation and entrepreneurship education, which eventually leads to the poor effect of the integration of expertise and innovation and the decline in the effect of education.

## 3. Practice of talent training mode of Architecture Specialty in Higher Vocational Colleges from the perspective of integration of specialty and innovation

### 3.1 Innovation of skilled personnel training mode based on school enterprise cooperation

School enterprise cooperation is the main implementation strategy for the reform and development of China's current vocational education field. It takes the market economy and social needs as the direction of the operation mechanism. Colleges and enterprises carry out cooperation in resource sharing, teacher training, technology research and development, student employment and other aspects, and use the teaching resources and environment with colleges and enterprises. It is a training mode aiming at giving full play to their respective advantages and cultivating high-quality workers and skilled personnel to meet the development needs of social enterprises. In the process of training high-quality workers and technical personnel to meet the needs of the economy and society, it is necessary to use professional courses to enable learners to master simple basic knowledge, but also to use practical teaching activities and innovation activities to strengthen the cultivation of professional skills, working ability and innovation ability. colleges and enterprises should give full play to the advantageous resources of both sides to carry out all-round cooperation, so as to improve the quality of talent training, and output more excellent high skilled talents for the society through innovative training mode. In the interaction between school and enterprise, the school can adopt the method of combining work with study, carry out project implementation according to the specific products and business characteristics of the company, and timely master the project knowledge required by the employing unit to employ talents in short supply; The school can make use of the internship to make the facilities and conditions of the enterprise play a value, improve the students' operation level and skill quality. At this stage, through the students' active participation in the implementation of specific projects, it can form the professionalism of loving the post and being hardworking, so as to deepen the students' recognition and emotional belonging to the enterprise and industry, and let the students form good values. In addition, colleges can make use of industry-college research collaboration to improve the focus and effectiveness of scientific research work in colleges, improve the scientific research ability of college teachers, promote the professional ability and creativity of teachers, and ultimately promote the benign interaction between colleges and enterprises, forming a cooperative community with unified value and emotion.

### 3.2 Promoting students' professional quality with craftsman spirit as the starting point

According to the employment data of College A, a number of students suffered setbacks from the beginning of their career because of their low professional quality, so unemployment happened. According to the understanding, the reason why they were dismissed by the company was not because of their poor skills, but because they "didn't understand the meaning of work and lacked the sense of responsibility for their posts, others and the social, impetuous, lack of hard-working, down-to-earth, diligent, humble and patient attitude to work", "no creativity and enthusiasm to work", "weak coordination ability, not good at cooperating with others", etc. Craftsman spirit is the traditional technical spirit in China. Making college students become various types of technical and skilled talents with "craftsman spirit and labor belief" is an inevitable way to solve the imbalance between supply and demand of vocational education talent cultivation, enhance the attraction of vocational education, and promote the high-quality development of vocational education. Most of the graduates of architecture

major are engaged in front-line construction and on-site command positions, which are characterized by a lot of outdoor construction, hard work, wind, sun and rain are common, so it is important to cultivate their hard-working quality. In addition, the type of work of the construction specialty has other characteristics, such as many hazards to safety, large workload of cooperation among disciplines, many unpredictable reasons, and more interference from the natural environment. It is also necessary to improve their good psychological quality, risk response ability and cooperation ability, and master good social interpersonal relationship.

The college forms the training mode of craftsman spirit from the two dimensions of professional courses and innovative education. Different professional courses reflect different professional spirit. In the teaching process of different professional courses, we should accurately grasp the value points of professional spirit embodied in them. Through the teaching of professional knowledge points, students can experience the professional spirit contained in them, and understand the significance of activities through specific professional practice. For example, in engineering survey, let them realize the importance of careful observation for engineering construction; Understand the significance of a number to the cost engineering when checking the quantities; During the structural inspection, life risk of the project may be recognized, so the importance of careful calculation to life. These are the embodiment of craftsman spirit in the field of architecture.

### 3.3 Taking cultural education as the carrier to create a good campus cultural atmosphere

The college stage is the stage of accelerating the development of students. The campus link of students' life has the effect of influencing people and infecting people. The humanistic environment of the school has a huge impact on students. The campus culture has its own strong trend ability and permeability. Therefore, it is very important for students to form a ubiquitous and silent humanistic environment.

Excellent teachers play an obvious role in promoting the guidance of campus culture. College A actively explores, dares to practice, and strives for innovation. It has carried out a series of teacher training projects such as "Famous Teacher Studio" and "Famous Master Workshop", and established talent training management systems such as "Double Qualified Teachers" and "Backbone Teachers" at different levels, so as to influence students with teachers' noble personality charm to influence and cultivate students.

The college actively disseminates the excellent traditional Chinese culture, and has opened humanities elective courses such as Chinese and foreign architectural culture, architectural history, etc. for all students in the school. At the same time, College A actively adds humanistic quality education to its subject teaching, including "Aesthetic Education", "Thanksgiving Education" and other contents into the general education course, and cultivates students' perseverance and group dedication to bear difficulties and overcome difficulties from experiments and training courses. Establish diversified and meaningful student associations, such as carpentry interest group, poetry interest group and literature interest group. Encourage students to love their majors and have a positive attitude towards life through poetry recitation, handicraft production competition and other ways, create an atmosphere, and make the campus a spiritual and meaningful cultural and educational base.

### 3.4 Building a new innovative curriculum system based on the combination of general education and specialized education

For a long time, influenced by traditional thinking, people believe that higher vocational colleges are schools to cultivate professional and technical talents, emphasizing professional skills education. Under the influence of this idea, the students trained in higher vocational colleges have narrower and narrower knowledge, weak basic theory, single structure of knowledge and ability, and poor social adaptability. But in today's technology iteration, the requirements of the society for the cultivation of higher vocational students should not only be limited to the cultivation of vocational skills, but also pay attention to the cultivation of other basic qualities, such as better learning ability, survival ability, aesthetic ability, etc. Driven by these social changes, the orientation of talent training in higher vocational education has been changing. Improving basic literacy, broadening the training caliber, and strengthening the combination of general education and special education have become the trend of cultivating students in higher vocational colleges.

At present, the achievements of innovation and entrepreneurship in higher vocational colleges, including typical employment and entrepreneurship, innovation and entrepreneurship competitions at all levels, and skill competitions at all levels, show a positive correlation between the quality of the achievements and the basic literacy level of students in higher vocational colleges. Existing data show that excellent achievements require students' solid basic knowledge and comprehensive ability. Therefore, the cultivation of college students' innovation and entrepreneurship ability needs the concept of general education. Its purpose is not to simply transfer the relevant professional knowledge or skills in a certain field to the students, but to expand the cultural vision, cultivate sentiment and cultivate rationality. In 2020, two teams from College A won the gold medal in the National Innovation and Entrepreneurship Competition, which shows that the professional ability of college students is indispensable. Otherwise, it is impossible to obtain excellence from strong players, so the formation of college students' basic literacy and the improvement of their professional ability should be strengthened, on the basis of establishment a curriculum system of "combination of general education and professional education" which promote the practice of "integration of professional education and innovation". Considering the fact that the current concept of innovative education in Higher Vocational Colleges lags behind, it is necessary for higher vocational colleges to gradually expand the total number of general education courses. The main body of the implementation is not only the basic curriculum department, but also other professional departments, such as architecture and art, to expand the number of general education courses in the whole school and gradually increase the coverage of entrepreneurship general education courses, so that more learners can freely choose the "nutrition meal" they need according to their own initiative. The education system combining general education with specialized education will make college students more flesh and blood.

## References

[1] Ling Liao Research on talent training mode of Architecture Specialty in Higher Vocational Colleges under the "1 + X" certificate system [j]Industry and

# On the interpretation of the word “Ku” based on the principle of physical structure

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**Abstract:** Based on the CCL modern Chinese corpus of Peking University, this paper uses a combination of qualitative and quantitative methods to exhaustively analyze the distribution of the meaning of the word “Ku”, uses the excellent English Chinese dictionary interpretation for reference, and uses the theory of physical structure to analyze and re describe the distribution of the meaning of the adjective “Ku” in modern Chinese, and finds two new meanings of the word “Ku”.

**Key words:** physical structure; Corpus; Research on interpretation

## 1. Introduction

Taking the adjective “Ku” as an example, this paper searches 115119 pieces of corpus of the word “Ku” from the modern Chinese corpus of Peking University (CCL corpus), and extracts 5000 pieces of corpus of the word “Ku” according to the proportion to establish a balanced corpus of the word “Ku” The definitions of “bitter” in the dictionary of modern Chinese learning (2010) (hereinafter referred to as “modern learning”), the dictionary of modern Chinese norms (3rd Edition) (hereinafter referred to as “modern rules”), and the Oxford Advanced English Dictionary (9th Edition), hereinafter referred to as “niugao” and the Longman Dictionary of Contemporary English (6th Edition), hereinafter referred to as “Longman”, Carry out annotation analysis one by one. The definitions of “bitterness” in modern Han are as follows:

- ① looks like the taste of bile and Coptis (as opposed to “sweet” and “sweet”): bitter gall | this medicine is extremely bitter.
- ② uncomfortable shape; Pain: bitter smile | hard | sad face | bitter days have passed | bitter sweet.
- ③ To move causes pain; Distressing: five members of the family rely on him to support them, but it is hard for him.

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[2] Qunli Xu Research on talent training mode of Construction Engineering Specialty in Higher Vocational Colleges Based on BIM Technology [j]Modern vocational education, 2018 (5): 1

[3] Lixin Xu,Lei Zhang Comparative study on modern apprenticeship and traditional professional talent training mode of Architecture Specialty in Higher Vocational Colleges [j]Contemporary educational practice and teaching research: electronic version, 2017 (9): 2

[4] Yubo Zhu Research on the training mode of prefabricated architecture talents for civil engineering majors in Higher Vocational Colleges [j]Hebei agricultural machinery, 2020 (7): 1

[5] Zhaoyu Cheng Research on the integration of craftsman spirit and the cultivation of skilled talents in Higher Vocational Colleges [j]Educational theory and practice, 2022,42 (09): 22-26

[6] Zhaojun Huang Construction of talent training mode for new engineering majors in Higher Vocational Colleges from the perspective of specialty innovation integration [j]Exploration of higher vocational education, 2022, 21 (2): 8

[7] Yongai Wu Research on the “mass entrepreneurship and innovation” talent training mode in Higher Vocational Colleges under the background of the integration of specialty and innovation [j]Scientific consulting, 2021, 000 (012): 116

[8] Xiaodong Han Research on talent training mode of Higher Vocational Colleges from the perspective of “integration of specialty and innovation” [j]two thousand and twenty-one(34): 8

[9] Biqi Wen Research on the construction of maker talent training mode of art design major in Higher Vocational Colleges [j]Educational research, 2020, 3 (8): 71-72

[10] Ligu Han Research on talent training mode of “integration of specialty and innovation, creation and employment” in Higher Vocational Colleges -- Taking architectural decoration engineering technology specialty as an example [j]two thousand and twenty(45): 45

[11] Lin Wen Research on the practice of teaching personnel training mode in Higher Vocational Colleges of architecture [j]two thousand and twenty(34): 8

[12] Ling Liao Research on talent training mode of Architecture Specialty in Higher Vocational Colleges under the “1 + X” certificate system [j]Industry and Technology Forum, 2021, 20 (5): 177-178

[13] Qunli Xu Research on talent training mode of Construction Engineering Specialty in Higher Vocational Colleges Based on BIM Technology [j]Modern vocational education, 2018 (5): 1

[14] Zhanhong Feng Thinking on the talent training mode of work integrated learning in construction higher vocational colleges [j]Educational theory and practice, 2012(55): 8

[15] Ying Liang The impact of the development of building industrialization on the talent training mode of Civil Engineering Specialty in Higher Vocational Colleges [j]Invention and innovation · education informatization, 2020, 000 (006): 152-153