Research on the Cultivation of Craftsmanship Spirit in Practical Teaching of Higher Vocational Colleges*

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Abstract—This paper dissects the integration of craftsmanship spirit into practical teaching in higher vocational colleges from various dimensions, analyzes the value significance of craftsmanship spirit into practical teaching, points out the existing difficulties and their reasons, and expounds the specific implementation path to address the problems. We should make researches on the integration of craftsmanship spirit into practical teaching in higher vocational colleges, strengthen the construction of rules and regulations, create an elegant academic environment, integrate craftsmanship spirit with enterprise culture, realize the co-construction and sharing of resources for the integration of craftsmanship spirit into practical teaching, promote the integration by means of on-line and off-line activities, and construct a practical teaching model of “learning to meet practical needs” with the craftsmanship spirit.

Keywords—craftsmanship spirit; higher vocational college; practical teaching; difficulties and outlet

I. INTRODUCTION

In the major speech of the Fourth Session of the 12th National Committee of Chinese People’s Political Consultative Conference, Xi Jinping encouraged Zhejiang businessmen to seek innovation and transformation with the spirit of craftsmanship. Combining with the characteristics of practical teaching in higher vocational education in China, Zhejiang businessmen should learn from others at home and abroad, explore effective innovative mode of integrating craftsmanship spirit into practical teaching, formulate corresponding innovative mechanism, give play to the guiding role of contemporary craftsmanship spirit, and realize the perfect combination of craftsmanship spirit and practical teaching of higher vocational education. Moreover, they also should regulate the professional behaviors of college students at the internship and training stage with contemporary craftsmanship spirit, correct their vocational views on bitterness and joy, strengthen the “professional enthusiasm, diligence and professionalism” for college students in the practical teaching, and shape the spiritual quality of vocational students who love their jobs and are willing to devote themselves to them, to form a new pattern of cultivating and inheriting contemporary craftsmanship spirit in practical teaching in higher vocational colleges.

In recent years, the Chinese government has paid high attention to vocational education. The Ministry of Education has emphasized the importance of improving the quality of practical teaching in higher vocational colleges. [1] The integration of craftsmanship spirit into practical teaching in higher vocational education is a new requirement given by the times. It is the bounden duty of educator in higher vocational colleges to improve the quality of practical teaching by means of innovating craftsmanship spirit, researching and exploring practical teaching in higher vocational colleges.

II. AN OVERVIEW OF THE CONNOTATION OF CRAFTSMANSHIP SPIRIT

The craftsmanship spirit is rich in connotation, which has inherited traditional culture and been innovated based on it. It is the professional spirit, professional attitude and professional ethics of being dedicated, hardworking, virtuous and talented, and striving for perfection, as well as the professional value orientation that elaborates products.

The government work report has stressed that we must vigorously carry forward and inherit the craftsmanship spirit. Craftsmanship spirit is a cultural soft power to build a world-renowned “Chinese brand” and a cultural upstart that upgrades the quality of being “made in China” and changes China from a big manufacturer to a strong manufacturer. The craftsmanship spirit is widely concerned from important members of the government to grass roots.

III. ANALYSIS OF THE STATUS QUO OF THE INTEGRATION OF CRAFTSMANSHIP SPIRIT INTO PRACTICAL TEACHING IN HIGHER VOCATIONAL COLLEGES

In recent years, the practice teaching of higher vocational education has been booming under the attention of the Ministry of Education. However, the institutional barriers and institutional deficiency in the integration of craftsmanship spirit into practical teaching still exist.

First of all, there are insufficient theoretical research and practical experience on the integration of craftsmanship spirit into practical teaching. Second, the phenomenon that how much attention should be paid to the integration of craftsmanship spirit into practical teaching has not been

*Fund Program: this paper is the phased achievement of the “Research on the Cultivation of Craftsmanship Spirit in Practical Teaching of Higher Vocational Colleges” (JG17EB071) of 2017 education scientific planning project of Liaoning province.
placed on agenda universally exists. Third, there are some phenomena, such as lack of top-level design, insufficient motivation, lack of effective assessment methods and unsound systems in the integration of craftsmanship spirit into practical teaching, which has led to lack of innovation model and management model. Finally, the quality of the teaching staff engaged in practical teaching needs to be improved. There is still a certain gap between the subject background, comprehensive quality and practical teaching needs. According to the latest deployment of practical teaching of vocational education by the Ministry of Education, how to make craftsmanship spirit a new driver to facilitate practical teaching and promote practical teaching in higher vocational colleges to keep pace with the times is worth further discussion by colleagues.

IV. THE SIGNIFICANCE OF THE INTEGRATION OF CRAFTSMANSHIP SPIRIT INTO PRACTICAL TEACHING IN HIGHER VOCATIONAL COLLEGES

A. Enhancing the Core Competitiveness of Higher Vocational Colleges

The integration of craftsmanship spirit into practical teaching in higher vocational colleges is the internal requirement of improving the overall educational strength of higher vocational colleges and an inevitable choice to implement the strategies of strengthening moral education and cultivating people and reinvigorating China through education, as well as a practical measure to keep improving in talents cultivation. We should explore an optimization model for the cultivation of craftsmanship spirit to meet the practical teaching needs of higher vocational colleges, create a successor of the great craftsmen, and improve the employment competitiveness of craftsman-type talents, which is conducive to enhancing the core competitiveness of higher vocational colleges.

B. The Need of Optimizing the Development of Practical Teaching in Higher Vocational Colleges

The integration of craftsmanship spirit into practical teaching is conducive to meeting the new requirements of economic and social development on talent cultivation in higher vocational colleges. It is the need of optimizing the development mode of practical teaching as well as the urgent need of cultivating the necessary professional spirit quality of brilliant working people. It has great practical significance to guide the practical teaching of higher vocational colleges with the craftsmanship spirit and continuously convey high-quality graduates with superb skills and high-skilled reserve talents with both morality and ability for the economic and social development.

V. ANALYSIS ON THE COUNTERMEASURES OF THE INTEGRATION OF CRAFTSMANSHIP SPIRIT INTO PRACTICAL TEACHING IN HIGHER VOCATIONAL COLLEGES

A. Making a Research on the Integration of Craftsmanship Spirit into Practical Teaching in Higher Vocational Colleges

General Secretary Xi Jinping pointed out that investigation and research are the basis for planning affairs and the way to complete affairs. [2] By means of the investigation and research on the integration of craftsmanship spirit into practical teaching in higher vocational colleges, we will make scientific decisions, carry out the major research activities of “grasping key points, making up shortcomings, strengthening the weaknesses”, summarize the characteristics of the integration of craftsmanship spirit into practical teaching in the new era, analyze the main problems existing, and study the top-level design. Besides, we will plan the development of practical teaching, subject research and teaching guidance in the spirit of craftsmanship, innovate the mechanism, study and formulate innovative routes, methods and models, guide the construction of demonstration zones for practical teaching with the spirit of craftsmanship, complete the assessment acceptance, establishment of evaluation index system and formulation of practical teaching syllabus, and do a good job of top-level design under the guidance of relevant higher vocational practice teaching documents of the Ministry of Education.

B. Strengthening the Construction of Rules and Regulations for the Integration of Craftsmanship Spirit into Practical Teaching in Higher Vocational Colleges

To realize the fine management of practical teaching in higher vocational colleges, we should take the latest theory of higher vocational education of the Ministry of Education as the guide, and actively construct the institutional context in which craftsmanship spirit and practical teaching are highly integrated. In addition, we also should formulate a series of management systems, such as the evaluation mechanism for the integration of craftsmanship spirit into practical teaching, which keeps pace with the times. We should improve the rules and regulations for supervision and evaluation, build a multi-dimensional evaluation mechanism, show the normative, guarantee and guiding role of the system, and normalize the behavior of teachers and students in an orderly manner under the framework of rules and regulations.

C. Creating an Elegant Academic Environment

We should focus on the value of academic research, strengthen the foundation of craftsmanship spirit, and energetically encourage scientific research. Proceeding from creating an open, inclusive and atmospheric academic atmosphere for the integration of craftsmanship spirit into practical teaching, we should establish an excellent team for the integration of craftsmanship spirit into practical teaching, strengthen the construction of learning team, and extensively carry out multilevel theoretical research and practical
exploration. With the help of colorful and popular academic activities, we should educate and inspire the team to enhance the humanistic feelings, create an elegant academic environment, enhance the overall quality of team members, upgrade the quality of practical teaching, and provide valuable practical reference, theoretical support and intellectual support for the integration of craftsmanship spirit into practical teaching in higher vocational colleges.

D. Fusion of Craftsmanship Spirit and Enterprise Culture

We should dig into the resources of cultivating craftsmanship spirit in practical teaching courses, integrate craftsmanship spirit into practical teaching content in a scientific way, and infuse craftsmanship spirit into every link of practical training. We should try to adopt the method of “craftsmen leading apprentice”, incorporate enterprise culture into practice teaching process, integrate craftsmanship spirit with enterprise culture, introduce enterprise craftsmen to professional teachers, infuse the quality requirements of enterprises for practitioners into the cultivation process of craftsmanship spirit in practical teaching of higher vocational colleges, shape the craftsmanship spirit with enterprise culture, and improve the quality of practical teaching.

Wang Shi, a famous entrepreneur, once said: “Chinese enterprises lack the craftsmanship spirit”. [3] In fact, enterprises need to strengthen themselves with the spirit of craftsmanship, fully exert the enthusiasm of craftsmen, and consolidate their foundation. At present, “being made in China” needs to be bigger and stronger. Most enterprises understand the importance of craftsmen and realize the value of craftsmanship spirit. Therefore, cultivating craftsmanship spirit is an urgent issue. The practical teaching in higher vocational colleges should transform the idea of running a school. First, we should change from paying attention to book theory and neglecting labor practice to vigorously strengthening practical education, so that the craftsmanship spirit of “ingenuity” becomes the criterion pursued by professional talents. Second, colleges should cooperate with enterprises to improve the incentive mechanism for the cultivation of craftsmen. Enterprises should attach great importance to craftsmen with special skills, and make the welfare benefits of craftsmen better than those of engineers, managers and marketing personnel, so as to improve the enthusiasm and creativity of the craftsmen. Last but not least, we should change our ideas. The work of craftsmen shines with wisdom. We should give humanity care to craftsmen, carry forward the craftsmanship spirit, create a new business card of being made in China, and start with respecting craftsmen and advocating the craftsmanship spirit in school-enterprise cooperation.

There is a huge gap in senior technicians in many manufacturing fields in China. We should make full use of various resources to strengthen cooperation between colleges and enterprises, build internship and training bases, train craftsmen who are badly needed in the manufacturing industry, and select outstanding talents to participate in overseas training. Some developed coastal areas in China are experiencing a phenomenon of “new blue-collar income higher than white-collar workers’. We should accelerate the training of craftsmen who meet the needs of the development of advanced manufacturing industry. Higher vocational colleges and enterprises jointly set up various practical training bases to expose students to cutting-edge technologies and latest equipment, so as to enhance vocational skills in training. Moreover, we should adhere to the combination of academic education and practical training, lay equal stress on craftsman spirit and practical teaching, and develop diversified craftsman spirit and integrate it into practical teaching in higher vocational colleges.

E. Achieving the Resources Co-constructing and Sharing of the Integration of Craftsmanship Spirit into Practical Teaching

We should pay attention to the practical teaching dynamics of the colleges and universities with advantages, of the same condition or in the same area, and take the opportunity of integrating craftsmanship spirit into practical teaching to further strengthen cooperation, achieve resource sharing, mutual benefits and common development. We should develop flexible and diverse exchange activities of integrating craftsmanship spirit into practical teaching, understand the relevant cultivating condition of integrating craftsmanship spirit into practical teaching through the official website, database, teaching and presentations and other Internet information platforms, collect and obtain relevant information, integrate the relevant data and information of the integration of craftsmanship spirit into the practical teaching, and strive to achieve the resources co-constructing and sharing of practical teaching with peer colleges and promote the in-depth development of the integration of craftsmanship spirit into the practical teaching.

F. Promoting the Integration of Craftsmanship Spirit into the Practical Teaching by Means of On-line and Off-line Activities

We can use Internet technology to promote the practical teaching of higher vocational colleges to step into the stage of intelligence, digitization, online and synergy, and use Internet voice, video, text and other interactive functions to release relevant information of the integration of craftsmanship spirit into practical teaching in real time, and improve the online interaction of the integration of craftsmanship spirit into practical teaching.

We can also carry out the online class of the integration of craftsmanship spirit into practical teaching, create a network exchange forum, hold a network exchange meeting, gather various information of the integration of craftsmanship spirit into practical teaching, strengthen the resource library construction of the integration of craftsmanship spirit into practical teaching, to facilitate online reading, inquiry, consultation, research, and make the network information resource library become a window of the integration of craftsmanship spirit into practical teaching.

Combining with the development trend of the Internet era and taking advantage of Internet functions of crossing time and space, crossing groups, convenient search, multi-
direction and disorder and quick information spreading, we
can collect real-time data of mass storage at any time,
and provide support for the deep mining and analysis of
the integration of craftsmanship spirit into practical teaching
data, promote the scientific decision-making, improve the
efficiency of practical teaching management, integrate
various online resources to provide college students with
personalized craftsmanship spirit training education.

We can use WeChat Official Account to build WeChat
Moments of the integration of craftsmanship spirit into
practical teaching, carry out relevant communication, and
combine with the intelligent, digital, online and collaborative
characteristics to promote its development. We also can
publish practical teaching questionnaires, spread the WeChat
circle of friends, and promote the model innovations of the
integration of craftsmanship into practical teaching through
online forums, online clubs, network seminar and other
styles.

We can use the information-based means of integrating
craftsmanship spirit into practical teaching, strengthen the
construction of special websites, web pages and columns for
practical teaching, use the emergent media such as mobile
terminals, WeChat and Weibo to promote the
communication of craftsmanship spirit, strengthen the
positive guidance of the Internet and the force of supervision,
and promote the integration of benign interactive
craftsmanship spirit into the public opinion environment of
practical teaching work, enhance the attraction and
penetration of the integration of craftsmanship spirit into the
practical teaching work. Besides, we can draw on excellent
network resources, build the network platform of the
integration of craftsmanship spirit into practical teaching,
and promote the effective interconnection between online
and offline activities.

G. Constructing a Practical Teaching Model of “Learning
to Meet Practical Needs” with the Craftsmanship Spirit

Based on the concept of large-scale vocational education,
with the guidance of “promoting the craftsmanship spirit and
striving to be the best talents”, combined with professional
characteristics, we should use the craftsmanship spirit to lead
internship training, construct a practical teaching model of
“learning to meet practical needs”, and improve the practical
skills of college students to make perfection more perfect,
which should be listed in the teaching plan and students’
credits. Taking the craftsmanship spirit as the main line,
taking “learning to meet practical needs” as a breakthrough,
we should focus on the teaching orientation, goals and
concepts of practical teaching of higher vocational colleges.
Through the organic integration of craftsmanship spirit and
social practice, we make the combination of craftsmanship
spirit and practical teaching, form dual-instructor system, the
dual-tutor system, and other great-powered craftsmen who
are cultivated the unique skills of the stunts and techniques,
carrying forward the spirit of traditional craftsmen and
forming a unique culture of craftsmen.

VI. CONCLUSION

The integration of craftsmanship spirit into practical
teaching has injected new vitality into the innovative
development of higher vocational education, and promoted
the practical teaching move forward to innovative
development and harmonious development. With the new
situation and new problems of higher vocational education
appearing in the new era, the integration of craftsmanship
spirit into practical teaching innovation is a new exploration,
new understanding and new ideas for higher vocational
education. We should actively explore the innovative mode
of integrating craftsmanship spirit into practical teaching,
create a public opinion environment of the integration of
craftsmanship spirit into the practical teaching, enhance the
promotion of the integration of craftsmanship spirit into the
practical teaching, interpret the value concept of “promoting
the craftsmanship spirit and optimizing practical teaching”,
and make the craftsmanship spirit become the nourishment
for the mind of optimizing practical teaching mode, and
improve the horizontal and vertical integration of
craftsmanship spirit into the practical teaching, thus forming
an effective development trend. [4]

This paper attempts to explore the integration of
craftsmanship spirit of higher vocational colleges into
practical teaching ecology from various dimensions, deepen
the reform of practice teaching system of higher vocational
colleges, optimize the practical teaching mode of higher
vocational colleges, adhere to the integration of production
and education, and insist on that knowledge and action are
one, stick to the direction of cooperation between school and
enterprise, and promote the implementation of the win-win
situation between practical teaching and craftsmanship spirit
in higher vocational colleges. This article serves as a modest
spur to induce someone to come forward with his valuable
contributions. I hope that this article will attract my
colleagues to pay more attention to the integration of
craftsmanship spirit into practical teaching, publish more fine
researches, to cultivate more craftsman-type talents for
China’s economic and social development, and to provide
theoretical support and intellectual support for the practical
teaching innovation, and provide an empirical basis for the
macro decision-making of the education administration. [5]