Research on the Construction of the Training Mechanism of Applied Talents in Colleges and Universities Based on Computer Aided Analysis from the Perspective of Craftsman Spirit

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Abstract. The spirit of craftsman is a kind of spiritual idea and attitude. It has become a way of training applied talents in Colleges and universities to regain the spirit of craftsman, which plays an important guiding role. By strengthening the value incentive of craftsman spirit, colleges and universities can reorient the talent training plan, which will realize the teaching of characteristic professional courses. By strengthening practical education, we can expand the training base of applied talents, which will further combine the spirit of craftsman and the training of applied talents. This article first analyzes the necessity of "craftsmanship spirit" in the training system of applied talents in colleges and universities based on computer-aided technology. Then, the issue of cultivating applied talents "craftsman spirit" is raised. Finally, some suggestions are made.

Keywords: Craftsman Spirit, Applied Talents, Personnel Training, Computer-aided Technology

1. Introduction

According to the needs of social development, we must cultivate applied talents, which has become the goal of promoting the structural adjustment of higher education. Under the background of craftsman spirit, colleges and universities should cultivate applied talents to meet the needs of social and economic development. Through the return and reconstruction of craftsman spirit, applied talents training has become an important part of the development of colleges and universities. By reexamining the spirit of craftsmanship, college students can cultivate the spirit of patience, concentration, persistence and toughness, which helps college students to enhance their core competitiveness[1]. In order to cultivate talents in Colleges and universities, we must re understand the connotation of craftsman spirit, which will carry forward the spirit of craftsman.

2. The necessity of integrating "craftsman spirit" into talent training system
"Craftsman spirit" into the application-oriented talent training system in Colleges and universities has become the inevitable development of the times, mainly as shown in Figure 1.

2.1. Meet the requirements of national transformation and upgrading
The following requirements are specified in the outline of the national medium and long term education reform and development plan (2010-2020). Colleges and universities must cultivate high-quality workers, which will meet the needs of national industrial transformation and upgrading. Therefore, we must carry forward the "craftsman spirit", which is an important measure to achieve industrial transformation and upgrading. Through the transformation and upgrading of the industry, enterprises can keep up with the rapid development of technology. Colleges and universities also need to cultivate a team of high-quality technicians. China's human resource management model is gradually moving towards Germany[2]. In the context of weakening labor costs, if China wants to become a manufacturing power and realize industry 4.0, universities must cultivate application-oriented talents with "craftsmanship spirit".

2.2. Carry forward the fine tradition of the Chinese nation
Craftsman spirit is the fine traditional culture of our country, which is the vane of modern craftsman spirit. By promoting the spirit of craftsmanship, the staff will devote more time to their work and professional study, which will be more admired. By cultivating students' craftsman spirit, we can cultivate the craftsman culture in Colleges and universities. The school must focus on improving students' knowledge and ability, which will carry forward the fine traditional spirit of the Chinese nation[3]. The development of a nation must have top technical talents. We must respect the lofty spiritual realm, which will cultivate students' craftsman spirit. By carrying forward the traditional culture, students will gradually cultivate the spirit of craftsmanship, which will become the inevitable demand of national development.

2.3. Enhance the personal value of students
By cultivating students' craftsman spirit, we can encourage students to play their self-worth. Through the cultivation of students' growth, students can develop in a better direction, which is the social responsibility and obligation of the school. Colleges and universities should integrate the spirit of craftsmen into the education of daily courses, which will enhance their ideological awareness. Through the cultivation of craftsman spirit, college students can greatly improve their own strength. Through the combination of theory and practice, we can be invincible in our work. The spirit of craftsman can promote the competitiveness of students' employment, which will play an important role in personal development. By maximizing our personal value, we can stand the challenge, which will realize our all-round development.

3. Problems in the cultivation of craftsman spirit
A total of 1000 questionnaires were issued, and 961 questionnaires were valid, with an effective rate of 96.1%. The specific analysis is as follows.

3.1. Imperfect personnel training mechanism system
The cultivation of "craftsman's spirit" can’t be separated from words, deeds and practice. Therefore, it is more and more important to improve the personnel training mechanism system. For a long time, colleges and universities have ignored the cultivation of "craftsman spirit", which virtually makes higher education utilitarian\cite{4}. China has not yet established a perfect training mechanism system. "Craftsman spirit" can only stay in the outstanding individual skills, which can’t cultivate the "national spirit" of students. According to the survey results, the main problem is neglect the cultivation of craftsman spirit, accounting for 65.3%. Secondly, there is imperfect training system, accounting for 60.7%. Details are shown in Figure 2.

3.2. Lack of "craftsman" teachers

With the rapid development of higher education, college teachers should have professional quality. If we want to integrate "craftsman spirit" into colleges and universities, colleges and universities must establish a team of teachers with "craftsman spirit", which is a new challenge to the educational concept and educational reform of colleges and universities. But at present, there is a general lack of craftsman teachers in Colleges and universities\cite{5}. According to the survey results, the main problem is lack of craftsmanship, accounting for 62.6%. Secondly, there is lack of "double qualified" teachers, accounting for 52.5%. Details are shown in Figure 3.

4. Measures to cultivate students' craftsman spirit

4.1. Improve the talent training plan system

The talent training plan of colleges and universities is a short-term and long-term training plan based on the development of national economy and society, the characteristics of industrial structure, the actual needs of enterprises and the development of colleges and universities. Therefore, if we want to combine the spirit of craftsman teaching, colleges and universities must draw up a long-term and short-term talent training plan through scientific positioning, which will avoid the current situation of students’ homogeneity. By improving the talent training plan system, students with craftsman spirit will enhance their core competitiveness, which will feed back the talent training program of colleges and universities. On the one hand, through the cultivation of cultural heritage, colleges and universities can improve the professional quality of students. On the other hand, colleges and universities can improve students' professional ability by emphasizing their learning ability. In terms of school system reform, colleges and universities can try the mode of "broad foundation + flexible module", such as...
the “3 + 0.5 + 0.5” mode, which will lay the foundation for modern applied and compound talents.\(^{[6]}\)

In terms of professional curriculum, by integrating the spirit of craftsman into professional education, this will help students to analyze the professional qualities of different professional posts.

4.2. **Strengthen the construction of "double qualified" teachers**

The construction of "Double Teachers" is the urgent need and basic guarantee to achieve the goal of talent training, which is the key to improve the quality of talent training. "Double teacher“ teachers are the main implementers of teaching process. By improving the breadth and depth of school enterprise cooperation, colleges and universities need to promote the reform of talent training mode, which requires a "double teacher" team with rich quality, such as professional theoretical basis, professional practical skills, education and teaching ability. Through the construction of "double teacher" teachers, colleges and universities can enhance teachers' professional identity and improve their social service ability, which will be conducive to the cultivation of "craftsman spirit" of students. "Double teacher" teachers should have the dual abilities of theoretical teaching and practical guidance, which will give full play to the training of students' theoretical and practical teaching. Colleges and universities should communicate with enterprises effectively. Through the construction of "double teacher" teachers, colleges and universities can improve the level of collaborative training of skilled talents, which provides conditions for the cultivation of "craftsman spirit" of students. It is a long-term, dynamic and systematic work to build a "double teacher" faculty, which requires colleges and universities to explore and develop new ways in combination with local industrial structure.

5. **Conclusion**

The craftsman's spirit is a professional attitude and continuous improvement spirit, which will show more and more important significance. Through effective personnel training, students will have a sense of responsibility and professionalism for continuous improvement and due diligence. Through computer-assisted technology to achieve the goal of talent training, teachers gradually transform into high-quality, high-skilled skilled workers, which is conducive to the transformation of technical talents with "craftsman spirit".

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