

Research on Three-dimensional Teaching Methods in Vocational Education

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Abstract: This paper summarizes and analyzes the learning situation of vocational education from the aspects of students' practical ability, professional attribute of vocational education, development and application of information media platform, etc. According to students' learning situation, further perspective vocational education with three-dimensional teaching method, to clarify the full application of three-dimensional teaching method in implicit education and explicit education. Three-dimensional art is used in implicit education to increase students' cultural cultivation, and three-dimensional teaching resources in various professional fields are constructed in explicit education. The full application of three-dimensional teaching methods aims to further improve students' learning validity in today's rapid development of artificial intelligence, to serve society with skills and literacy and realize their own life value.

Keywords: Vocational Education; Three-dimensional; Teaching Method

“Cultivating well-rounded talents with moral, intellectual, physical, aesthetic, and labor skills is currently the core task of universities.”^[1] Vocational education is based on the cultivation of technical talents, and its main goal is to cultivate technical backbone in a business field. In China's education system, secondary vocational schools, higher vocational schools and vocational schools are all undertaking this teaching task. For example, in many areas of China, science and education cities have information, mechanical and electrical, engineering and textile vocational colleges, which are set up to train professional technical talents for the economic and social development of the region and play a great role in the industrial development and economic development of the region. This article will analyze the current situation of vocational

education, and try to explore the use of three-dimensional teaching methods according to the learning situation, so as to improve the learning effectiveness of vocational education.

1. Analysis of Vocational Pedagogy

1.1 Vocational School Students Have Strong Practical Ability and Lack the Training of Theoretical Abstract Thinking

Vocational education mainly cultivates technical and skilled talents, and the biggest feature of technical and skilled talents is to cultivate students' practical ability, which is equipped with training rooms and laboratories in daily teaching, such as: Students majoring in auto repair, in addition to learning theoretical professional knowledge, also need to practice the operation of car parts in the training room, and strengthen the mastery of skills and literacy in repeated exercises day after day. Because vocational education attaches great importance to realization ability, it is obvious in the teaching process that their grasp of abstract theoretical knowledge is far lower than their grasp of practical skills. In normal teaching activities, theoretical knowledge and practical knowledge must go hand in hand, and theoretical knowledge provides theoretical support for practical operation practice. On the basis of practical operation practice, it is concluded and summarized to further innovate theoretical knowledge.

1.2 There are Many Science and Technology Majors in Vocational Education, and the Emotional Training of Humanities and Social Sciences is Lacking

From a macro point of view, technical skills-based vocational education is mostly in science and engineering majors, such as the construction of construction engineering, intelligent intelligent manufacturing, chemical and pharmaceutical industries. This paper

believes that a student's growth must be in a social relationship, and only on the basis of physical health and mental health can he better cultivate his vocational skills and qualities. Whether it is basic education or vocational education, it is to cultivate students with all-round growth of morality, intelligence, physical fitness, the United States and labor. Therefore, in vocational education, we can not only unilaterally cultivate students' skills and knowledge goals. Ignore their emotional goals. In the teaching process, the knowledge goal generates the emotional goal, but the achievement of the emotional goal can better stimulate the practice of the skill goal.

1.3 Multimedia Information-Based Teaching Platform Needs to Further Strengthen Students' Self-Disciplined Learning Ability

In the era of increasingly rapid development of artificial intelligence, vocational schools are actively developing their vocational education cloud platform. The original intention of the development of vocational education cloud platform is to enable students to make more diversified use of network resources, enhance class participation and improve learning efficiency. However, in specific teaching practice, it is obviously found that with the increasingly convenient intelligent platform, students' self-learning ability has declined, and the root cause is that interactive activities such as one-sentence question and answer, roll call answer and other interactive activities developed by vocational education cloud platform have obvious extraterritoriality. This paper holds that in the whole educational environment, self-regulated interest learning is the most effective learning method, but the increase of heteronomy will weaken the cultivation of students' interest in self-regulated learning.

2. Introduction of Three-Dimensional Teaching Methods

In education and teaching, a good teaching method is the key to improve learning efficiency. For example, Shu Chen's "IPA analysis method is employed to identify issues" [2]. In vocational education, there are generally classroom theory courses and special practical training courses. In the past teaching process, the method of theory teaching, case

explanation, group discussion, flipped classroom, etc. At present, with the rapid development of we-media and artificial intelligence, students' acceptance and cognition of images and videos are higher than the theoretical learning of abstract words.

In view of the above analysis of learning situation in vocational school education, such as the lack of training of theoretical abstract thinking, the lack of emotional training of humanities and social sciences, and the weakening of students' self-disciplined learning ability by multimedia information-based teaching platform, this paper explores the popularization and application of three-dimensional teaching methods in combination with the teaching practice in vocational education. The so-called three-dimensional teaching method is mainly to use images, videos and other explicit artistic three-dimensional carrier in vocational education theory classroom, and to activate abstract theoretical knowledge with symbols, images and videos, so as to increase students' acceptance of abstract theory. In the long history of human development, the scene that human beings face is from the scene to the mirrored symbol and image, from the symbol and image to the abstract text; From the perspective of time, human beings contact image symbols earlier than abstract characters; In terms of the sensitivity of cognitive acceptance, human beings are more sensitive to symbols and images than abstract words. The high sensitivity and acceptance rate of human to symbolic images is the three-dimensional teaching method in the teaching method. The application of three-dimensional teaching method to vocational education is also based on the biggest characteristics of vocational school education to cultivate technical talents. In vocational school education and training, because of the importance of practical ability, students' practical ability is better than the mastery of theoretical knowledge, but a complete knowledge chain must be the effective combination of theory and practice. Three-dimensional teaching method is not only methodologically suitable for vocational education, in order to increase students' full understanding of abstract theory and achieve the knowledge goal of curriculum teaching. In the whole process of education, the cultivation of knowledge goals is for better practice, but if

we want to empower the power of practical skills and realize the long-term of skill goals, we should strengthen the cultivation of emotional goals. The three-dimensional teaching method is based on the three-dimensional carriers such as symbols, images and videos, so it has the greatest advantage in the cultivation of emotional goals. Emotional goals are the value recognition and emotional resonance of knowledge goals and skill goals, and the achievement of emotional goals will further enhance students' practical ability, and then better become the industry leader in the field of skills.

3. The Application of Three-Dimensional Teaching Method in Vocational Education

In essence, the research of teaching method is to apply it in specific teaching practice. The above article combined with the attributes of vocational education to do a specific analysis of the training of technical and skilled talents, according to the vocational teaching situation to empower specific teaching methods, namely three-dimensional teaching methods. From a macro point of view, vocational education is an effective combination of implicit education and explicit education, and the focus of this paper is how to effectively use three-dimensional teaching methods in vocational education.

3.1 The application of Three-Dimensional Teaching Method in Recessive Education

In a broad sense, implicit education is the campus culture that accompanies students growing up from childhood. Compared with the explicit education that teachers prepare lessons and teach in the whole teaching process, it has a subtle effect. In many academic research fields, it is clearly shown that the environment has an impact on a person's growth and learning. Marx said that "people create the environment, and the environment also creates people", and campus culture is also a part of students' living environment. The use of three-dimensional teaching methods in vocational colleges mainly wants to use three-dimensional expression of painting, music, sculpture and other visual arts, auditory arts, focusing on the attributes of vocational education, craftsman spirit, school philosophy, development history and other explicit expression. At present, many colleges and universities have their own characteristics of campus culture, or use famous sayings in the

excellent traditional culture to name the main buildings, and also use three-dimensional expression to establish the core landmark of campus culture, which is the use of recessive factors in campus culture. Although the recessive factor of campus culture is not task-type or goal in specific teaching, its effect is long-lasting. According to the survey, when many students recall the culture of their Alma mater after graduation, they will remember the scene in the campus culture during their college years and the landmark buildings of the school, which explains the importance of campus culture. In this paper, the three-dimensional teaching method is to further strengthen and give play to the cultural attributes of campus culture.

3.2 Application of Three-Dimensional Teaching Method in Explicit Education

Different from the recessive role played by campus culture, explicit education is mainly the teaching and learning link in the teaching link, and every teaching and teaching should consider the efficiency of students' learning and acceptance. In the previous analysis of vocational education, it has been explained that students in vocational colleges have advantages in practice and operation, but they lack sufficient grasp and study of abstract concepts in the field of teaching. In this paper, the explicit education essence of using three-dimensional teaching method in classroom teaching is to solve the problem of how to let students fully grasp abstract theory in vocational education. In other words, three-dimensional teaching method is to transform abstract theoretical knowledge into a methodology easier for students to master. In vocational education, theoretical education and practical education are matched. In the three-dimensional teaching method, attempts are made to establish the three-dimensional teaching resource library of vocational education, and the abstract theory is broken down into operational process steps with videos, images, symbols, etc., to weaken the abstract expression in the textbook. Among them, the construction of three-dimensional teaching resource base is the key to the explicit application of three-dimensional teaching method in vocational education, which inspires us to explore the establishment of three-dimensional teaching resource base in various

professional types in the future vocational education. For example, in the chemical industry, construction, design, intelligent intelligent manufacturing, mechanical and electrical technology, engineering technology, textile technology and other fields have established the corresponding three-dimensional teaching resource base, and then fully used in the future vocational education of various majors, further integration of theory and practice, improve skill literacy.

4. Conclusion

The above article analyzed the learning situation of vocational education students from the aspects of the cultivation of theoretical abstract thinking, the emotional cultivation of humanities and social sciences, and the cultivation of students' self-disciplined learning ability, and determined the three-dimensional teaching method in innovative education according to the learning situation from numerous teaching methods, and then fully applied the three-dimensional teaching method in campus culture and classroom culture. In campus construction, we should activate recessive teaching to achieve cultural education, build professional three-dimensional teaching resource base in classroom teaching, further combine theory and practice fully, and improve learning efficiency.

Deng Huiqing Staying Updated in Terms of Educational Values: The Problems and Reform of Vocational Education in China argues that educational values need to be updated.^[3] Vocational education is indispensable to the current economic and social development, and is also an important part of the educational sequence. According to the vocational

attributes of vocational education and students' learning situation, it is of great significance to explore the use of three-dimensional teaching methods to improve skills and literacy and strengthen theoretical cultivation, both from the perspective of social development and talent training. At the same time, it is also of great help to the growth of students as individuals and the realization of personal value. In summary, according to the characteristics of vocational education, this paper explores the use of three-dimensional teaching methods to improve students' learning efficiency, and provides an effective case for improving vocational education from the generation of knowledge goals and skill goals to emotional goals, and from emotional goals to stimulate the achievement of skill goals.

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