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Discussion on the Talent-training Mode of Surveying and Mapping Geographic Information under the Educational Reform

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Abstract: With the development of science and technology, surveying and mapping geographic information industry has become an important pillar industry in modern society. The talent-training of surveying and mapping geographic information is of great significance for promoting the development of surveying and mapping geographic information industry. However, there are some problems in the current talent-training mode of surveying and mapping geographic information, such as emphasizing theory over practice, emphasizing results over process, etc. These problems have seriously affected the talent-training quality of surveying and mapping geographic information. Therefore, it is necessary to deeply discuss the talent-training mode of surveying and mapping geographic information under the educational reform. It is hoped that through the discussion of this paper, it can provide some useful references and suggestions for the talent-training mode of surveying and mapping geographic information under the educational reform.

Keywords: Educational reform; Surveying and mapping geographic information major; Talent-training mode

1. Overview of College Educational Reform

The reform of higher education is a systematic project aimed at improving the quality of education and training talents to meet the needs of social development. Under the background of globalization, the reform of higher education is not only a challenge to the traditional mode of education, but also a comprehensive renewal of the educational concept and mode. The reform of higher education aims to break the traditional discipline system and realize the modularization and individuation of curriculum. In modern society, more and more jobs require interdisciplinary knowledge and skills. Therefore, colleges and universities should break the disciplinary boundaries and realize the modularization of courses, so that students can choose courses according to their interests and career planning, and cultivate their comprehensive quality. In addition, college education reform emphasizes students active learning and independent learning. In modern society, because of information explosion and knowledge updating rapidly, students need to have a strong ability of independent learning and innovation. Therefore, colleges and universities should guide students to study independently and cultivate their innovative spirit and critical thinking.

2. Current Situation of Talent-training Mode of Surveying and Mapping Geographic Information

2.1 Theory is disconnected from practice

Surveying and mapping geographic information is a highly practical discipline. Its study and research need a lot of practical operation and field investigation. However, in the current teaching, theoretical teaching is often dominant, and students' practical ability is weak. The emergence of this phenomenon is mainly due to the influence of traditional teaching mode and evaluation system. First of all, the traditional discipline system overemphasizes the boundaries of disciplines and neglects the interrelation and intersections between disciplines. Under this system, surveying and mapping geographic information is designated as an independent discipline, and its intersections and integration with geography, geographic information science, remote sensing science and other

disciplines are ignored. This division of discipline boundaries makes the study and research of surveying and mapping geographic information too theoretical and neglects the importance of practice. Secondly, the traditional teaching mode is that the teacher speaks in the front and the students listen in the back, and they lack of interaction and communication. In this mode, the dominant position of teachers is strengthened and the dominant position of students is ignored. Students are mainly passive receivers in the classroom and lack of active learning and exploration. In this mode, students' practical ability cannot be effectively exercised and improved. Finally, the traditional evaluation system pays too much attention to students' mastery of theoretical knowledge, but neglects students' practical ability and innovation ability. Under this system, students learn mainly for exam preparation, rather than for real learning and exploration. Under this evaluation system, students' practical ability and innovative ability cannot be effectively stimulated and cultivated.

2.2 Valuing technology over humanity

Students majoring in surveying and mapping geographic information need to master a lot of professional knowledge,including geographic information system,remote sensing technology,geographic information collection and processing,etc. The professional knowledge is the basis of surveying and mapping geographic information must master. However, it is worth noting that students majoring in surveying and mapping geographic information are lacking in humanistic quality education. Humanistic quality education is not only to teach some basic moral norms and codes of conduct, but more importantly to cultivate students'social responsibility, innovative spirit and critical thinking. These abilities are also very important for students majoring in surveying and mapping geographic information. On the one hand, social responsibility is the quality that students majoring in surveying and mapping geographic information must have. Surveying and mapping geographic information work involves a lot of social resources and public interests. Therefore, students majoring in surveying and mapping geographic information must have a strong sense of social responsibility and be able to carry out surveying and mapping geographic information work in a just, fair and open manner. On the other hand, the innovative spirit is the quality that students majoring in surveying and mapping geographic information must have. Surveying and mapping geographic information work is a work that needs continuous innovation and progress. Therefore, students majoring in surveying and mapping geographic information must have a strong spirit of innovation and be able to explore and innovate continuously in practice.

2.3 The matching degree between teaching model and industry demand is low

At present, the surveying and mapping geographic information industry is in a stage of rapid development, and the demand for talents shows the characteristics of diversification, high quality and strong innovation ability. However, the existing talent-training mode of surveying and mapping geographic information has certain shortcomings in training objectives, teaching content, practical teaching and so on, which often cannot fully meet the needs of the industry, resulting in a prominent contradiction between supply and demand of talents. In terms of teaching contents, the existing teaching contents are often too theoretical and lack of connection with practical work. After completing their studies, many students find it difficult to apply what they have learned in practical work, which is also an important reason for the contradiction between talent supply and demand. In addition, in the aspect of practical teaching, the existing practical teaching often relies too much on classroom teaching and lacks the actual working environment and work content. It makes many students lack enough practical experience in the actual work and cannot adapt to the job position well.

3. Optimization Strategy of Talent-training Model of Surveying and Mapping Geographic Information under Educational Reform

3.1 Effective connection between theory and practice

In order to improve the talent-training quality of surveying and mapping geographic information, it is necessary to reform the existing teaching mode and evaluation system. Teachers need to guide students to learn independently and cultivate their innovative spirit and critical thinking. Teachers need to strengthen practical teaching and practice training, so that students can learn and grow in practice. Teachers should pay attention to humanistic quality education and personality education to cultivate students' social responsibility and moral quality. Only in this way, can we train surveying and mapping geographic information talents who really adapt to the needs of social development.

3.2 Pay attention to the cultivation of humanistic quality

In the curriculum system of surveying and mapping Geographic information major, humanistic quality education should be

integrated into it, and courses such as "History of Geographical Thought", "History of Maps", "Remote Sensing Technology and Social Development" should be set up to make students understand the history, development and application of surveying and mapping geographic information technology in the process of professional learning and also understand the role and status of surveying and mapping geographic information technology in the development of human civilization at the same time. At the same time, we should strengthen the popularization of humanities and social science knowledge. In the teaching process, teachers should guide students to pay attention to humanities and social science knowledge, such as history, literature, philosophy, art, et c., and combine it with professional knowledge to improve students' comprehensive quality. Meanwhile, some humanities and social science knowledge competitions, lectures, forums and other activities can be organized to stimulate students' interest in humanities and social science knowledge. In addition, we should pay attention to the humanistic quality education of practical teaching. In the process of experiment, internship and practice, teachers should pay attention to cultivating students' teamwork ability, communication ability and innovation ability, and also pay attention to students' mental health and interpersonal relationship handling ability. Some practical activities can be organized, such as field practice and social practice, so that students can experience the application of surveying and mapping geographic information technology in real life to improve their humanistic quality.

3.3 Improve the match between teaching model and industry needs

With the development of science and technology and the deepening of educational reform, the talent-training mode of surveying and mapping geographic information is also facing great changes. Firstly, the teaching content should be closer to the actual work, including the latest technology and industry developments. It can be achieved by inviting industry experts to give lectures, or by incorporating the latest project examples into the teaching content. Secondly, practical teaching is an important link to cultivate students' practical ability. And more practical opportunities should be provided, such as internship and project development, so that students can learn and grow in practice. Thirdly, industry-university-research cooperation should be established. In-depth cooperation with industry enterprises allows students to have the opportunity to get in touch with actual work, understand the needs of the industry and improve employment competitiveness during the learning process. Finally, the evaluation system should be improved. The evaluation system should be more comprehensive. And it should include not only students' academic achievements, but also their comprehensive quality and practical ability. Awards can be established to encourage students to achieve excellent results in both academic and practical terms.

4. Conclusion

The talent-training mode of surveying and mapping geographic information under the educational reform needs to be explored and practiced from many aspects. Only in this way can we train surveying and mapping geographic information talents who are more in line with the needs of The Times to promote the development of surveying and mapping geographic information industry. In the future, we will continue to pay attention to the reform and development of the talent-training model of surveying and mapping geographic information and make more contributions to promoting the progress of the surveying and mapping geographic information industry.

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