

Research on the Practice Orientated Development and Optimization of Geography in University of Jinan, China

Gao Weidong^{1,a,*} Jiang Wei^{2,b} Xie Fujun^{3,c} Zhao Qiang^{4,d} Zhou Mimi^{5,e}

School of Resources and Environment, University of Jinan, China

¹stu_gaowd@ujn.edu.cn

²stu_jiangw@ujn.edu.cn

³stu_Xiefj@ujn.edu.cn

⁴stu_zhaoq@ujn.edu.cn

⁵2295498207@qq.com

*Corresponding author

Keywords: Geography, Practice-oriented, Development and Optimization, University of Jinan.

Abstract. Practical teaching is the demand for the cultivation of university education, and it is also the core issue to improve the quality of education and teaching. The practice-oriented talent training mode is the inevitable choice for the reform of the geography education curriculum. First, geography solved the transformation of theoretical orientation to practice orientation by optimizing the curriculum system, in University of Jinan. Then, a practical platform is developed to meet the professional development, which provides guarantee for students' innovative practice. In order to meet the needs of personal development and society, we constantly explore and improve the individualized training mode which is conducive to the long-term development of students, and a training model formed for the practice of geography science in line with the characteristics of the school and the profession.

1. Introduction

The task of university education is to train high-level professionals with innovative spirit and practical ability. Practical teaching plays an important role in improving students' comprehensive quality and cultivating students' innovative spirit and practical ability. Practical teaching is the demand for the cultivation of university education, and it is also the core issue to improve the quality of education and teaching.

The traditional university-based teacher education emphasizes knowledge-based, students learn theoretical knowledge in the university, and then apply the knowledge which they have learned from centralized internships. The training mode of from theory to practice separates curriculum learning from practical activities, resulting in weak practical ability of normal students^[1]. Since the 1980s, the United States has begun to implement a practice-oriented education-based model, emphasizing the integration of theory and practice^[2]. In recent years, scholars have explored three orientations of professional development from the perspective of different disciplines, as fellow, rational orientation, practical orientation and ecological orientation. The practice orientation advocates the creation of individual unique experiences, which based on the concept of action, and students grasp the creation of teaching mechanisms, communication, and strategic use, mainly in practice^[3].

The practice orientation is a way of education and teaching, and it is also an experience of education and teaching. The practice and reflection orientation is the unity of theory and practice. The practice orientation is based on the construction of teachers' practical knowledge and the formation of practical wisdom to cultivate the reflection of practitioners. The transition from theoretical orientation to practical orientation is an inevitable choice for the reform of the curriculum of Geography education, in order to bridge the phenomenon of the disconnection between theory and practice, change the existing curriculum structure and practice, and strengthen

the organic integration of theory and practice.

Geography originates from human production and life, serves human production, life, and production activities, are practical activities^[4]. Practice is a distinctive feature of geography. The universities have a complete range of disciplines, a large scale of schooling, and a strong comprehensive strength of scientific research. Geography is a comprehensive discipline, including the natural sciences and social sciences; the full range of professional settings provides more opportunities for the intersection of geosciences and other disciplines in universities.

Strengthen the practice teaching in order to reform the practical teaching content, integrate geography teaching with nature, integrate with society, integrate with real life, combine with local economic construction, and combine with the future professional requirements of students^[5]. How to give full play to the implementation of the curriculum effectively and with high quality on the basis of in-depth understanding is the problem we need to think about.

2. Guiding ideology

2.1 Practical education concept of advancing with the times

The development of practical education is a process of exploration and renewal of ideas. University education of China has been continuously explored in the process of rapid development, and gradually formed a practical education concept in line with China's national conditions. A series of practice-oriented talent development programs are gradually implemented, reflecting the needs of the times for university education in China. The concept of practical education is the forerunner of practice, and the new development concept of advancing with the times should be the driving force for the development of higher education.

2.2 Solid foundation and practical ability of geosciences

Practice requires theory first, and solid theoretical knowledge is the basis for practice. Without a solid theoretical foundation, practice can only be in the form. It is difficult for practitioners to deepen their understanding of theoretical knowledge through practical activities. It is difficult to achieve the goal of training skills through practice. Geography, a more practical major, requires a three-dimensional discipline with theory, practice, and skills. A solid theory is the theoretical foundation which students must have.

2.3 Reasonable and moderate practice teaching arrangement

The change from the theoretical orientation of practice orientation is the inevitable choice for the reform of geography education curriculum. To bridge the phenomenon that education theory and practice are out of touch, we must carry out reasonable and appropriate teaching practice arrangements, change the existing educational curriculum structure and strengthen the organic integration of theory and practice.

3. Specific implementation

3.1 Optimize the practice-oriented curriculum system

Course teaching relies too much on theoretical teaching, neglecting rational thinking on vivid, concrete and individualized curriculum practice, which easily forming a theoretically oriented talent training model. The education mode of traditional geography pays too much attention to the transfer of theoretical knowledge, and not paid enough attention to the practice. Students do not pay attention to observation and thinking in their daily life, which makes the very simple theoretical problem seem very esoteric. In order to solve this problem, firstly, we must guide students to observe in the usual teaching process; and secondly, it is to resolve the shift of theoretical orientation to practical orientation. So, optimizing the practice-oriented curriculum system becomes inevitable. Based on the intention of the national curriculum designer, different universities should implement the curriculum scientifically and innovatively according to the actual situation of the

region and the school. It has reached the basic needs of professional curriculum personnel training and has its own characteristics. Universities have unique conditions, can take advantage of the comprehensive advantages of Geography, and use the development advantages of the relevant majors of the Universities to create a curriculum system with the characteristics of the Universities, so that the Geography of the Universities is better competitive in the China.

3.2 Build a practical platform which is in line with professional development

The construction of a practice-oriented talent training system needs to conform to the practical platform of professional development. The construction of the practical platform includes the following three levels, one is the basic teaching practice platform, which satisfies the needs of theoretical teaching and cultivates the practical platform for students' basic professional skills. This is the basis for the professional development of students. The second one is based on the student innovation practice platform, which based on the basic knowledge and professional basic skills of students, to develop students' professional innovation and practical ability. And the third one is a community-oriented, community-based service to meet the needs of social and economic development of practical platform, in the context of socio-economic development, training students to play professional expertise, the ability to serve the needs of society and lay the foundation for professional development after graduation. Three different practice platforms are a platform for gradual development of students' professionalism and professional skills.

3.3 Design a personalized training model that is conducive to the long-term development of students

The professional training of students is not to make students a unified standard of talents. Students should be promoted according to the characteristics of students in the process of student training. Geography is very strong cross-professional, professional and involves a wide, which provides a very favorable condition for the personality development of students' professional learning process. In the process of cultivating talents in geography, according to the special strengths and preferences of students, students have a clear goal in the development of professionalism.

4. Case: Practice-oriented Geography curriculum optimization plan, University of Jinan

University of Jinan is a university which jointly established by Shandong Province and Ministry of Education in China. It has a wide range of professional subjects, strong local characteristics and professional characteristics. The special background also provides a good development platform for the development of geography. In order to cultivate the talents for the needs of the country and the social and economic development, geography constantly optimizes the curriculum structure, perfects the practical teaching platform, and cultivates practical talents in the practice orientation , in University of Jinan^[6].

4.1 Practice-oriented curriculum design

Geography curriculum expertise includes three modules: general education courses, professional courses (including curricular practice) and concentrated practice courses. In the first course module, students need to master the core curriculum of the university, which aims to provide students of education major with knowledge of humanities, society and nature. The rich knowledge and ability structure is conducive to students' self-learning and lifelong learning. The second module is a professional course (including in-class practice), which aims to establish a student's basic professional knowledge structure, solid foundation knowledge through in-class experiments, cultivate students' professional basic skills, and lay the foundation for students' professional development. The third one is a centralized practice module, and it is divided into three levels. The first level is the professional understanding of internship. After the completion of the professional basic course, understanding the internship can deepen the understanding of the basic elements of the geographical environment and establish the concept of comprehensive Geography from a macro perspective. The second level is the practice of professional courses which after the completion of

the professional courses; Develop students' professional skills through practice in professional laboratories. The total practice time is 33 weeks, accounting for 18.2% of the total credits. The third level of practice aims to personalize the students and meet the needs of students' development. The third level includes the practice of physical geography comprehensive practice, practice of comprehensive human geography and graduation practice, which can improve the professional quality of students and improve their professional practice ability. A series of scientific innovation activities, which using professional features, combining with other professional characteristics of the school and paying attention to the intersection of disciplines, to play the professional expertise of students, and cultivate students' practical and innovative ability.

4.2 Practice-oriented practice platform construction

The basic practice platform of disciplines is the basis for cultivating students' professional skills. A professional training and experimental center and 18 practices teaching bases have established which can provide a large number of practical opportunities for the comprehensive practice of the students every year. It has achieved good results and demonstrated the advantages of geosciences students.

4.3 Practice-oriented teacher team building

Cultivating and improving the practical teaching ability of university teachers is to improve the teaching ability of teachers to grasp the rules of practical teaching, deepen the construction of practical teaching connotation, and cultivate students' practical ability. Teachers not only have a wealth of professional theoretical knowledge, but also have the ability to translate practical practice and theory into practice. The Geography teachers in University of Jinan have many years of scientific research experience and strong professional practice ability. Professional teaching effectively achieves a combination of theory and practice. The university has continuously to improve the training system of teachers' practical teaching ability, and to innovate the teaching model of practical teaching teachers, improved the quality of the construction of the teaching staff with practical orientation, and effectively promoted the professional development of teachers.

5. Conclusion

The task of university education is to train high-level professionals with innovative spirit and practical ability. Practical teaching is the demand for the cultivation of university education, and it is also the core issue to improve the quality of education and teaching. The traditional knowledge based education model separates theoretical teaching from practical teaching, which is not conducive to the cultivation of applied talents. Geography is a comprehensive and practical profession. The development of disciplines needs to strengthen the integration with other disciplines. It is necessary to strengthen the organic integration of theory and practice. The cultivation of the practice-oriented talent model needs to optimize the setting of professional courses, construct a practical platform that meets the needs of basic practice and the needs of students' individualized training and social development. And the cultivation of the faculty which satisfies the practice-oriented talent training model cannot be ignored. University of Jinan explored a talented training model for the practice of geography professionals which takes advantage of the comprehensive set of majors in comprehensive colleges and give full play to the advantages of geography.

Acknowledgement

This research was financially supported by Key Projects of Education Reform in Undergraduate Universities in Shandong Province (No. Z2018X057) and Teaching Research Project of University of Jinan (No. JZ1709)

References

- [1] Zeichner, K.. Rethinking the connections between campus courses and field experiences in college and university-based teacher education. *Journal of Teacher Education*, 2010, 61(1-2): 89-99.
- [2] Hollins, E.. Teacher preparation for quality teaching. *Journal of Teacher Education*, 2011, 62(4): 395-407.
- [3] Zihan Li. Teacher's Professional Development from the Perspective of Life Course of Practical (in Chinese). *Education Teaching Forum*. 2017, 9(13):33-34.
- [4] Rediscovering Geography Committee, Board on Earth Sciences and Resources, Commission on Geosciences, Environment and Resources, National Research Council. *Rediscovering geography: new relevance for science and society*. National Academy Press. Washington, D.C.1997.
- [5] Zhaohui Xue, Yifan Wang, Xiaohong Kou, Wancong Yu.Strengthen the teaching reform and practice to improve the comprehensive ability of students. *International Conference on Optics, Photonics and Energy Engineering (OPEE)*.2010.China. DOI:10.1109/OPEE.2010.5508011
- [6] University of Jinan. *Guidance on the preparation of the full-time undergraduate professional training program*.2018.