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Rethinking of Teaching Reform of Land Resource Management Discipline in Local Normal Colleges and Universities under the New Situation

Junxia HUANG, Wei WU*

College of City Construction, Jiangxi Normal University, Nanchang 330022, China

Abstract The Agriculture and Forestry discipline in local normal colleges and universities plays an important role in cultivating talents and higher education to serve the local "agriculture, rural areas and farmers". The Land Resource Management discipline is a science that studies the use, allocation, and management of land resources and assets, and has comprehensive and practical features. In the context of the proposal of the rural revitalization strategy and the establishment of the Ministry of Natural Resources of the State Council, the importance of cultivating land resource management talents who understands both land planning and urban planning is self-evident, and the teaching reform of Land Resource Management discipline is receiving much attention. Taking the Land Resource Management discipline of Jiangxi Normal University, a key normal university in Jiangxi Province as an example, combining the characteristics of the discipline setting and the development process, we analyzed the existing problems in its development, so as to provide recommendations for the teaching reform of Land Resource Management discipline in local normal colleges and universities.

Key words New situation, Local normal colleges and universities, Land resource management, Teaching reform, Rethinking

1 Introduction

Land Resource Management is an interdisciplinary subject with both social and natural science attributes^[1], and it has its own characteristics in the development process in different schools. The Land Resource Management discipline originated from the land planning and utilization discipline established by the Northeast Agricultural College in 1956^[2]. In 1998, the undergraduate discipline of Land Resource Management was officially set up in the professional directory of higher education in China. By now, it has been developed for more than 50 years. According to incomplete statistics, there are currently more than 60 colleges and universities setting land resources management undergraduate programs, about 50 colleges setting master's degree education, and nearly 20 colleges setting doctoral degree education^[3]. There are different types of schools that establish Land Resource Management discipline. There are farmers' colleges, normal colleges, polytechnics, and comprehensive colleges. Among them, there are 16 normal colleges, most of which are local colleges and universities, including Beijing Normal University, East China Normal University, Central China Normal University, Jiangsu Normal University, and Hunan Normal University, *etc.*

2 Requirements for cultivating personnel of Land Resource Management discipline in the context of rural revitalization

The report of the Nineteenth National Congress pointed out that the issue concerning agriculture, rural areas and farmers is a funda-

mental issue related to the national economy and people's livelihood. We must always take this issue as the top priority of the party's work and implement the strategy of rural revitalization. Taking agriculture and forestry as the key area of China's strategic development reflects the importance of China's "agriculture, rural areas and farmers" issue and the urgent need for talents in agriculture and forestry. More importantly, it highlights the important mission of the local colleges and universities of agriculture and forestry to serve national food security, beautiful countryside construction, and rural revitalization. In addition to the increasingly sophisticated requirements for land and resources management, the State Council established the Ministry of Natural Resources through integrating functions of Ministry of Land and Resources, the National Development and Reform Commission, the Ministry of Housing and Urban-Rural Development, the Ministry of Water Resources, the Ministry of Agriculture, the State Forestry Administration, the National Oceanic Administration, and the National Surveying and Mapping Geographic Information Administration. The establishment of the Ministry of Natural Resources marked the beginning of the era of scientific and standardized land resource comprehensive monitoring^[4], and the requirements for technical and practical capabilities of professional talents are increasing. The fundamental task of local colleges and universities is to cultivate high-quality comprehensive talents who have all-round development of morality, intelligence physique and aesthetic and can contribute to the development of local economy and modernization of agriculture. Problems such as poor student professionalism and insufficient reserve talents have been plagued by talent training and reform of teaching systems and mechanisms in local normal colleges. In the context of rural revitalization and establishment of

the Ministry of Natural Resources, it is an essential problem to find out how to grasp the problems in the professional development of land resources management and accelerate the growth of outstanding talents in the local agricultural and forestry fields in the teaching reform of the agricultural and forestry discipline in local normal colleges and universities.

3 Current situations of the development of Land Resources Management discipline in local normal colleges and universities

3.1 Characteristics of discipline setting of Land Resource Management in local normal colleges and universities

The Land Resource Management discipline is based on the basic theories of modern management, economics, and resource science. It takes the investigation, evaluation, development, utilization, protection, planning, and management of land resources as the research object, and aims at the sustainable use of land resources. Taking Jiangxi Normal University as an example, the Land Resource Management discipline only offers enrollment at the graduate level, and the master's degree in Land Resource Management discipline has started enrolling since 2007. The master of Land Resource Management discipline is responsible for the core task of cultivating professional high-quality talents and is an important part of higher education^[5]. Jiangxi Normal University set Land Resource Management discipline to cultivate senior modern land resource management talents with overall development of morality, intelligence and physical, having solid basic theory and systematic professional knowledge of Land Resource Management discipline, having high ability in foreign language listening and speaking, and scientific paper writing, being able to read foreign language literatures in Land Resource Management discipline more proficiently, and able to write abstracts in foreign languages accurately, known the history and current status of the development of Land Resource Management discipline at home and abroad, being skilled in using computers to solve practical problems in Land Resource Management discipline, having a high theoretical level and strong practical application ability in the chosen research direction, and able to independently undertake professional studies after graduation, and having practical working ability in teaching, scientific research, administration and corporate management. In terms of length of schooling, the Land Resource Management discipline adopts a flexible length of schooling, usually three years, and the course study is one and a half to two years. Students spend at least one year in scientific research and dissertation work. Students who have completed all the courses and other stipulated cultivation contents in the cultivation program in advance, or who have excellent results, outstanding scientific research ability, completed a dissertation, and meet the school's requirements, can apply for early graduation, but the minimum period of study should not be less than 2.5 years. Those students who fail to complete all the studies can extend the study period appropriately, but the maximum length is 5 years.

The Land Resource Management discipline of Jiangxi Normal University is traditionally characterized by the sustainable use of rural land resources; in the overall features of the discipline, it is characterized by the study of land asset management, which has formed land economy and institutions and real estate management, real estate appraisal and investment, real estate project operation and management. Postgraduates should complete all courses for the master's degree in the first two academic years, with a credit requirement of 37 points or more, including 26 points of compulsory courses (degree courses), one point of academic activities and one point of practical activities. The discipline adopts a "five-combination" cultivation method, that is, "combination of tutor guidance and collective guidance, combination of teacher guidance and master student learning, combination of on-campus cultivation and off-campus learning, combination of classroom teaching and extracurricular lectures, combination of theoretical guidance and practical guidance, to improve the moral cultivation, scientific research ability, foreign language level and practical application ability of the students of Land Resource Management discipline.

3.2 Existing problems of the Land Resource Management discipline in local normal colleges and universities

3.2.1 Disconnection of undergraduate education and graduate education in the Land Resource Management discipline. Taking Jiangxi Normal University as an example, only the College of City Construction offers postgraduate education in the Land Resource Management discipline and awards the academic degree of management science. The undergraduate only sets disciplines such as real estate development management, engineering management, urban planning, architecture, landscape architecture, *etc.*, and recruits more than 150 students annually. Undergraduate education and postgraduate education have not been effectively connected, and the disconnection has appeared, which is not favorable for the cultivation of highly specialized Land Resource Management discipline talents.

3.2.2 Lack of professional teachers, much attention to theory, but less attention to practice. The basis for the development of the Land Resource Management discipline of Jiangxi Normal University relies on the geography discipline and undergraduate real estate discipline of the predecessor geography college. Existing teachers have a large proportion of teachers with a background in geography and real estate, and the teacher structure is unreasonable. Very few teachers came from the Land Resource Management discipline during their master's and doctoral periods. There is a shortage of teachers in matching disciplines such as land management, land planning, surveying and mapping. In addition, the university itself is a teacher-oriented college, with a limited level of specialization. Teaching focuses on theory and pays little attention to the practice. The overall practice teaching level is not high, and the degree of external recognition of the Land Resource Management discipline is not high.

3.2.3 Few students enrolled in the discipline, and mainly enrolled in the real estate discipline. The College of City Construc-

tion in Jiangxi Normal University annually recruits about 6 master students in Land Resource Management discipline. The majority of its students are undergraduate college students. The number of students is small and the quality is general. Most of those students are taught in small classes, the proportion of course experiments is too low, and the teaching is biased toward real estate. During the first and second grades of postgraduate students, academic pressure is high; due to limited teaching funds and lack of internship links, corresponding teaching equipment cannot be put in place; students are mostly graduated for examinations, and fewer graduates are actually engaged in the field of land resource management, leading to low recognition of the Land Resource Management discipline.

4 Recommendations for teaching reform of Land Resource Management discipline in local normal colleges and universities

4.1 Increasing enrollment and promoting effective connection between undergraduate and master discipline In order to strengthen the professional level of Land Resource Management, colleges and universities should actively apply for undergraduate Land Resource Management discipline, focusing on wide-caliber enrollment, and allow students to re-determine their personal interests and professional qualities after receiving a one-year basic course, and highlighting the continuity of the discipline^[6]. In terms of the discipline setting, it is recommended to reposition, highlight the combination of normal colleges and agricultural resources in the knowledge system, and combine the new normal requirements of Land Resource Management discipline, add new elements to relevant courses to meet the requirements of theoretical knowledge of the Land Resource Management discipline.

4.2 Stressing professional quality, placing equal emphasis on theoretical and practical learning Practical teaching takes a very important position in the entire professional teaching system^[7]. The Land Resource Management discipline has very strong social practical requirements, and the ability requirements of students are constantly changing. Therefore, it is necessary to keep up with the social development situation in teaching and enhance the professionalism and practicality of the Land Resource Management discipline. It is recommended to carry out targeted guidance work for students' graduation, and to formulate a career plan before enrollment to make clear the development goals of students. Besides, it is recommended to adjust the student cultivation program in time, make appropriate adjustments to the class credits, and if necessary, the internship experience can be linked to the same level of academic studies.

4.3 Taking the road of combining management and engineering and comprehensive development Since entering the 21st century, the disciplinary boundaries will become less and less obvious, and multidisciplinary and interdisciplinary will become the mainstream of future cultivation method of the Land Resource Management discipline. In the context of the strategy of rural revi-

talization, in order to adapt to the new normal of land and resources management and the context of agriculture and forestry development, the teaching reform of the Land Resource Management discipline in Jiangxi Normal University should highlight its disciplinary characteristics, recruit and cultivate talents in management and engineering, constantly strengthen students' practical skills, cultivate students' innovative spirit, and truly achieve the goal of construction of the Land Resource Management discipline^[8].

5 Conclusions

Different from the traditional mathematics, physics and chemistry disciplines and general management disciplines, the Land Resource Management discipline has the dual attributes of management and technology, and is a multidisciplinary and emerging discipline. Its multi-disciplinary characteristics determine that it must blend with different disciplines, and its practical characteristics require that students in this discipline must have a high degree of professionalism and comprehensive quality. Colleges and universities should not ignore the inherent needs of the Land Resource Management discipline because of its unilateral emphasis on characteristics^[9]. Local normal colleges and universities are generally weaker than agricultural colleges, polytechnics, and comprehensive colleges in terms of comprehensiveness and practicality. In order to undertake their own responsibility for promoting local economic development, in the teaching reform of the Land Resource Management discipline that cultivates comprehensive talents, it is required to take serious attitude. In the future, local normal colleges and universities should actively improve the training mode of the Land Resource Management discipline under the enrollment of Public Management discipline, fully consider the requirements of the land science discipline and management discipline of the Land Resource Management discipline, and promote the connection between theoretical courses and practical courses^[10]. At present, local normal colleges and universities are vigorously implementing the integration of colleges and disciplines and highlighting their own characteristics for running schools. The enrollment and cultivation goal of the Land Resource Management discipline of local normal colleges and universities should be aimed at cultivating comprehensive talents, highlighting their own advantages in running schools, and moving closer to comprehensive colleges and universities.

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immunotoxic cell (CIK cells, NK cells, CTLs cells and CAR-T cells). However, the regulatory factors and related signaling pathways of PD-1 are not clear. Additionally, PD-1 inhibitors have different effects on different types of tumors, and accurate assessment on the patients' conditions is needed for clinical application. The therapy of PD-1 inhibitors has slow onset and long duration, could induce autoimmune diseases, and cause pneumonia, hepatitis, colitis and endocrine disorders. It needs combining with related clinical practice theory to carry out more systematic and deeper research on PD-1 from animals (constructing nude mouse tumor model and zebrafish model), cells (such as various cell experimental models) and molecular level (such as target molecules in various signal pathways), thereby laying the basis for further promoting the research of PD-1 becoming target molecules of tumor immunotherapy.

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