

Theory and Practice of the Green Cultivation System of Economic Management Talents——A Case of Tianjin Polytechnic University

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Abstract—Environmental problems are generated in the process of economic development, so they are also economic problems. Therefore, it is urgent that economic management talents with the concept, knowledge and skills of green development should be included in the modern university’s class. The paper put forward a basic framework of the knowledge system for green cultivation of economic management talents, and then takes it as a comparative standard to analyze the problems which is existing in the training process of current management talents. Based on the above, the paper clarifies the basic content of green cultivation for economic management talents into two modes which are in-class and after-class, and then the paper puts forwards the means and methods to incorporate green education into the existing talent training system. The practices which display in Tianjin Polytechnic University show that the integrated teaching method and process can improve the ability and social applicability of the talents.

Index Terms—economic management talents, green culture, practice and exploration

I. INTRODUCTION

Environmental problems are not only a matter of end-of-pipe governance, but a question of harmonious coexistence between man and nature in the whole process of education. These involve product design, production management and after-sales service, as well as post-consumer treatment and disposal. There problems include engineering and economic management issues. Therefore, it is necessary to use the talents of these two types of talents and apply their skills to deal with these problems. In summary, it is necessary to carry out green education work in engineering majors and economics majors, especially in the cultivate revolution phase in China. In order to meet the above needs, this paper carries out research and practice on the green training of economic management talents.

II. THE BASIC FRAMEWORK OF THE KNOWLEDGE SYSTEM FOR THE GREEN TRAINING OF ECONOMIC MANAGEMENT TALENTS

Green education research has been in existence for a long time in China. Yuan Dening proposed in 1998 that the so-called “green education” is an all-round education

on sustainable development and environmental protection awareness [1]. Implementing this education is an important measure to improve the level of social responsibility for cultivating talents in universities. The basic goal is to sow the seeds of “green” to the society, then the students trained in colleges and universities can become the backbone strength of China’s sustainable development strategy and environmental protection [2]. It can be seen from the above that the green cultivation and green awareness is the primary task of green education. Social needs and national strategies are the two driving forces for the green training of college talents. It is not enough for the backbone strength of environmental protection and the backbone to have green awareness, but necessary to have the knowledge and skills to turn green awareness into green productivity. As a matter, the green training knowledge system of all professional talents including colleges and universities should include three major components: green concept, green knowledge and green skills. The above relationship is shown in Fig. 1.

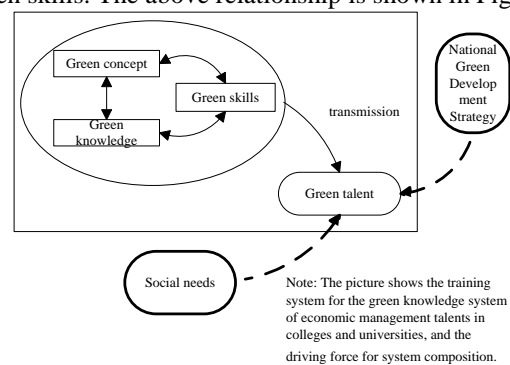


Figure 1. Green talent cultivation system.

It can be seen from Fig. 1 that the driving force for the green cultivation of management talents is that under the new normal period, the country is in urgent need for talents capable of coping with new situation based on the green development. It is the basic task of green education to enable the management of talents to establish a green concept of harmonious coexistence between man and nature, to master the green knowledge of discovering and utilizing natural laws, and to have the measurement and management skills of integrating natural capital and environmental values into input-output analysis.

III. PROBLEMS IN THE GREEN CULTIVATION OF ECONOMIC MANAGEMENT TALENTS

According to the basic framework of green management of economic management talents, we analyzed the problems existing in the current training of

management talents are analyzed. The results are shown in Fig. 2.

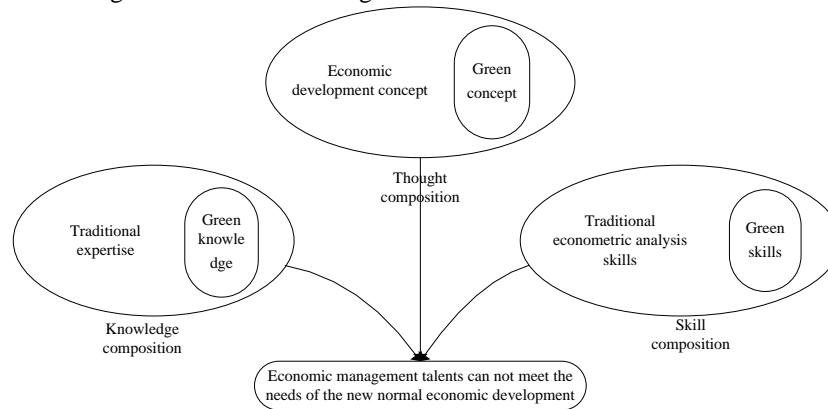


Figure 2. The imbalance in the management of talents in management.

Fig. 2 shows the main problems in the current training of management personnel, which are embodied in the following three aspects.

Shortage 1: Focus on traditional concepts, the concept of ecological civilization is insufficient transmission.

Traditional ideas include devotion to the motherland, love of the people, loyalty to the party, traditional world views, moral values and values such as ritual, righteousness, benevolence, wisdom, and trust. They have been well reflected in university education, but not enough. Civilization is the crystallization of advanced culture and ecological civilization is the crystallization of green development and advanced culture [3]. However, colleges and universities are still lacking of ecological civilization concept that conforms to nature, respects nature and protects nature.

Shortage 2: Focus on R&D and promotion of traditional technology, and the green integration is lacking.

Innovation is the main feature of social and economic development in the new era. We need to inject green power into this feature, including the promotion of green culture, research and development of green technology, promotion of green innovation and the application of results in scientific research. For economic and management majors, the inclusion of resource values and environmental costs into the measurement, analysis, and management strategies of the entire economic process is currently in urgent need [4]. However, from the current scientific and technological research and development and skill cultivation system design of colleges and universities, the requirements for fully integrating green knowledge and content are far from being met.

Shortage 3: Focus on the teaching of traditional professional knowledge, the transmission of the law of harmony between man and nature is insufficient.

Because the greening of the skill cultivation system design is not strong enough, the current professional knowledge of the university classroom is still based on

traditional theories and methods, and the green development theories and methods that can cope with the new problems under the new normal are not rich enough. The lack of green knowledge reserves will inevitably affect students' deep understanding of the rituals and laws of harmony between man and nature, and it is also difficult to form a systematic economic management skill to solve the severe ecological problems we are currently facing.

Lack of understanding of the green concept of coordinated economic and environment development, lack of green knowledge reserves about harmony between man and nature, and lack of green economy analysis skills transmission will lead to insufficient green awareness of the talents cultivated by universities which also have insufficient awareness of applying green knowledge and skills to life, study and work. Based on this, it not only affects the formation of its green consumption concept, but also affects its ability to manage green economy.

IV. PRACTICAL EXPLORATION OF BRINGING GREEN EDUCATION INTO THE MANAGEMENT OF ECONOMIC MANAGEMENT TALENTS

Based on the above-mentioned theoretical research and practical exploration, we have carried out the practical exploration of incorporating green education into the talent training system in the Tianjin Polytechnic University.

A. Clarifying the Green Cultivation Content of Management Talents

Before we carry out practice of the green training of management talents, we must first clarify the new content that needs to be incorporated into the existing training system. Generally speaking, the green education content of college students mainly includes education on several aspects such as green values, green knowledge and green behavior. Specifically includes the following:

First, the cultivation of green concepts, green awareness and green values. Cultivating strong green concepts, green awareness and green values is one of the main goals of integrating green education into the existing university education system. Its content is mainly the ecological ethics, perceptual emotion, green consciousness and green values that college students who gradually form a harmonious relationship between human and nature in the daily learning and life.

Second, the transmission of green knowledge. Green knowledge includes theories and methods of harmony between man and nature on the basis of natural science, as well as social science knowledge related to resources and environment. When students have mastered certain green knowledge, they can have certain ability to observe research, distinguish and make decisions on the natural environment. One of the basic tasks of college students' green education is to teach them complete green knowledge.

Finally, the training of green practical ability. Green behavior ability refers to people's ability to respond to resource environmental protection. This is an external manifestation of whether people's green values are mature and green knowledge is rich. Therefore, in the training of green knowledge and green behavioral norms, the development of green behavioral ability and habits should also be carried out. In addition, there is a need to have a strong ability to acquire cutting-edge knowledge through self-study (including the knowledge that people and nature live in harmony). This self-learning ability includes methods and ways to master and collect new knowledge, and is good at analyzing, synthesizing and summarizing the collected knowledge, thus forming a preliminary knowledge identification and selection ability.

B. Practical Exploration of Incorporating Green Knowledge into the Management System of Management Talents

After explicitly clarifying the need to incorporate the green culture content of the existing training system, this study combines the existing curriculum system of the Tianjin University of Technology's economic creation class to carry out practical exploration of knowledge transfer and integration methods.

Mode 1: Education system in class

There are three main ways to integrate the education system in the class: one is to add professional courses such as environmental economics; the second is to learn the ecological civilization of the curriculum by referring to the mode of thinking and politics; and the third is to invite famous scholars to enter the campus for reports or lectures.

The Department of Environmental Economics arranges teaching content in a modular form, including environmental problem observation, environmental problem analysis, economic solution block for environmental problems, and green development practice.

The course ecological civilization includes two parts: theory class and practical class. The ecological

civilization of the theoretical curriculum is mainly to include relevant green development and ecological civilization content such as resource value, environmental cost and external in related courses. For example, in microeconomics courses, the main methods for addressing market failures are taxes and subsidies, business combinations, and privatization of public goods. The ecological civilization curriculum in the practical curriculum should be consistent with the theoretical course. For example, in the literature retrieval course, the relevant content of green development theory and practice is added. Through the retrieval of such documents, students can better understand the concepts, knowledge and methods of ecological civilization.

The purpose of inviting famous scholars to enter the campus is to teach their deep understanding of environmental problems and accumulated solutions to the economics students in the quickest way, to educate people with advanced scientific knowledge and practical skills, to teach people with advanced scientific knowledge and practical skills, and to inspire students with a sense of social responsibility in harmony in which people and nature live in harmony.

Mode 2: Extracurricular education system

Extracurricular education is a useful supplement to in-class education. Extracurricular education is based on practical training. The training process is not only the specific application of theoretical knowledge and methods, but also the further training and training of practical skills to solve problems. The main forms of extracurricular education in the green training system of economic management talents are as follows: the first is to visit the enterprise, the second is to go to the enterprise to participate in the post training, the third is to participate in scientific research projects of tutor, the fourth is to take the lead in the scientific and technological innovation project by university students and the fifth is to develop the cooperation project for teachers and students. The first two forms of extracurricular practice are the most direct and the best, but due to limited practical resources, it is difficult to form a long-term focus on the subject of practice and training. The latter three training methods are all school-oriented and students-oriented, so the time schedule and content arrangement can be relatively concentrated, and the training methods can be flexible. In addition, the extra-curricular practice of green integration helps college students to bring the feelings, learning gains and surviving confusion in the practice process to the classroom teaching activities in the flipping classroom, so that the speeches of the students in the flipping classroom are no longer limited to the homework and document retrieval, but from the actual training of observation, analysis and resolution of practical problems. This can make the flipping classroom livelier and more meaningful, and thus form a good communication and interaction between the class and the class.

V. PRACTICE EXPLORATION RESULTS

Through the above practice, the green education effect has been initially achieved, and the overall quality of the students in the class has been greatly improved. There are 31 people in the class, and the number of papers published is 31, so the publication rate is 100%, and the paper related to green development topics account for more than 1/3. This result is far higher than the average level of ordinary classes (less than 10% of published papers). The awards for the provincial and ministerial competitions of the students in the class are as high as 60% or more, which is 6-7 times that of ordinary classes. In 2017, the postgraduate entrance examination and employment rate reached 90%, and one third of them entered high-level universities to continue their studies.

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