A Preliminary Study on Ecological Management of Higher Education in Our Country

Huayue Yan
The College of Management, Tianjin Polytechnic University, Tianjin, China
Email: Yanhuayue12@163.com

Abstract: Based on the brief introduction of the history about the development of higher educational ecology, this thesis analyzes the key various problems and the reasons existing in the field of higher education since the educational reform in 1999 in China. To solve these problems, this thesis elaborates the connotation of the ecological management in the educational ecology research perspective, and makes preliminarily study on the ways to implement the ecological management in university.

Keywords: higher education; colleges and universities; ecology; ecological management

Ecology was originally a biological concept, and now this concept has extended to anthropology, sociology, and the whole humanities and social sciences from biological, natural sciences. It includes politics, economy, culture, environment, population, housing, food, etc., in various fields. This concept has been able to get such a wide range of applications because of its inherent concept of human pursuit, which represents the goal of human existence. Applying ecology to education field has been an ancestors' wisdom, and meanwhile it is also an effective way to solve the problems existing in current education.

1. The Research and Development Background of Educational Ecology

People have made a lot of useful attempts and efforts in the ecology of education area and various theories has comes out and got lots of achievements. And provide a healthy and sustainable development to the education. Research on ecology of education abroad began in the 40's of 20th century. This search was started by Barker R and Wright H comes form the University of Kansas’s ecological research on human behavior. In 1966, the British scholar Ashby put forward an 'ecology of higher education' concept on Universities: British, Indian, African: a Study in the Ecology of Higher Education and he was the first scholar used the principles and methods of ecology to research higher education [1]. Dean Cremin Lawrence from Columbia Teachers College put forward book in the public Education formally proposed the concept of educational ecology on Public Education formally in 1976. The 70's of the 20th century is a blossom period for foreign educational ecology. In the 80's educational ecology research has developed into depth and the range become wider, such as the British scholar Eggleston, published a "The Ecology of School" to study the distribution of educational resources subject; Portland State University professor Powers and others persisted in searching the implications brought to the culture, the school's teaching and curriculum by the ecological crisis for many years [2]. Besides, Lacey, C, Williams, R, Goodlad, JI, King, EJ also made a great contribution to this area.

In 60’s of the 20th century, Fangbing Lin form Taiwan Normal University was the first one to study the ecology of education. In the early 90s and late 80s of the 20th century, mainland scholars began to study this field. Dingfu Wu from Nanjing Normal University, Guorui Fan from East China Normal University and others have made some achievements in this field. In the field of ecology of higher education, Zubin He from Guangxi Normal University made a more in-depth study on the ecology of higher education and put forward new ideas of the sustainable development of the ecology of higher education. He interpreted the higher education scale, structure, quality and efficiency, regional distribution and the ecological environment by using ecological principles and published numerous articles [3]. But now, the ecology of higher education has not played a guiding role in reality, has not got a good combination of higher education practices. It still needs to strengthen the research to apply ecological principles of higher education to higher education practices.

2. The Current Problems Existing in University Management and the Needs Analysis of Ecological Management

With China's reform and opening up and the development of all sectors in the society, our country's higher education has also got a rapid development. Meanwhile, there are also lots of problems comes out. Especially, as the universities has been increasing the enrollment since 1999 the education is becoming a industry, the contradictions become increasingly prominent when the higher education is changing from elite education to mass education. For example, a shortage of education resources, a serious shortage of teachers, equipment, and library materials can not meet the national standards, the
deteriorating financial position, financial risk is increasing, the quality of education is declining, the imbalance of employment supply and demand, bad graduate employment, graduate Rush rent-seeking for graduate test and academic corruption, etc.

The actual capacity of higher education has exceeded the maximum in the functional structure. It has caused input and output imbalance. The root cause of these problems is our higher education system and external environment, education supply and demand, and internal management we are facing are losing the ecological balance. To this end, we need a new perspective to explore the various educational issues.

The purpose of ecology of education research is to reveal the law of the development of education and ecological mechanisms coordinate the social systems and the coupling relationship between the universities, explore the ways to optimize educational environment and to solve practical problems by analyzing the relevant factors and the complex and dynamic relationship in the education development. Ecology of education uses a holistic, comprehensive, systematic and balanced view to analysis and re-build the education system and theoretical framework has become a new sustainable development concept in a new era.

Ecology of higher education means that it will start in the view of ecological management system, proceed with the principles and methods of ecology of education, select ecological factors and views, and survey and analyze internal and external environment and its impact in the education system comprehensively and systematically to find solutions to the problem. The purpose of ecological management of higher education is point out that the benefits of ecological values in China's higher education find the recipe for healthy and sustainable development for the higher education development and commit to achieve a harmonious and healthy development.

On the seventeenth meeting, Hu Jintao put forward a issue: to achieve the balanced development of education. In fact, it also shows that our present education system is imbalance. Furthermore, this imbalance is an ecological imbalance. To solve the problems arising in higher education, the higher education has to carry out ecological management and strive to build a social environment and campus environment with ecological atmosphere.

3. The Higher the Connotation of Ecological Management in Higher Management

With the reform and development of higher education, higher education has become a popular education in our country, the size and number of students increased dramatically. College offers more than just a simple place for students; the more important aim is to offer education and training personnel. In order to solve problems arising in the transformation of higher education and maximize the function of higher education, we have to reform the old management. Ecological management as a new management style and management philosophy, is a transition from the value orientation of the centricism of human nature and controlling the nature to the value orientation of harmony between man and nature, man and the environment, people and resources. It focuses on ecological mentality of all the relevant personnel, which plays an important role to the harmonious development of higher education.

3.1. The Definition of Ecosystem Management

Ecological Management of Higher Education makes society, government, universities, teachers, material, resources, energy coordinated and interacted by designing, organizing, coordinating and managing creatively a variety of ecological factors inside or outside the university. It maintains a high efficiency, low consumption, high-quality, less problems higher education environment. The organic life consists of society, university and teachers and students get a sustainable, healthy and harmonious development.

3.2. The Meaning of Ecological Management

Ecological Management includes three meanings: First, the conjugation ecological relationship between the management body of the government, all levels of management at the university and the internal and external campus environment. Second, as a management tool of ecological principles, techniques and methods, and a theory includes ecology principle, ecosystem science, ecological cybernetics and management; Third, objects of management systems include all kinds of ecological factors.

Ecological Integrated ecosystem management emphasizes integrity, conjugation, evolution, mutual help, environmental protection, and systematicness. It integrates the single biological link, cultural aspects, and social aspects and forms an organic system with a strong vitality in the organic system. It regulates the system's dominancy and diversity, openness and autonomy, flexibility and stability, long term and harmony, utilizes the resources efficiently, maintains the environment efficiently and brings a high degree of harmony to man and nature by technical innovation, system reform, behavior guidance, and management education. 3.3 The purpose of ecological management

The fundamental purposes of ecological management of higher education are to change the conflicts between the society and universities, government and universities, the internal management of universities, colleges and students, and university and resources; improve the efficiency of resource use and the relationship between the parties; strengthen vitality, maintain and improve the quality of teaching in higher education and regeneration; protect the life of the higher education system; let the college provide long-term service to all as-
pects of the community by using ecological principles and systems engineering methods within carrying capacity of the higher education system.

4. Ecologic Management Methods in Colleges and Universities

Ecological Management of higher education is a new management style we adopt after the crisis caused by the expansion in higher education. It is a thought bases on the sharp increase in the number of students, decline in faculty and the teaching level, decline in the quality of teaching, one-sided pursuit of scale. It is a reflection on "anti-ecological Road" in China. The highest level of management is not to "control", but to promote and help the managed object get a better development-- this is the purpose of ecological management. The interactions and mutual promotion between the various ecological factors in the education ecosystem constitute relationships and contradictions in the education ecosystem, and promote circulating development from imbalance to balance in the system. Therefore, the ecological management of higher education starting from system concept and coordinate and social environment, school environment, the resources of teachers and students related to the development of higher education and solve the problems.

4.1 Coordinate the Relationship between Universities and External Environment

Former President James Dodd from University of Michigan has pointed out after studied the development of universities:: "vitality of the university is an integral part of the university is it has been examining the world we live in, evaluate it and make it as the basis for adjustment of teaching, research and social services. " [4]

The external environment including community, government and other universities and so on, are the external factors affect the development of universities.

- Coordination between universities and society contains two meanings: First, coordinate the relationship between university and society pursue. College's labor power, financial resources and material resources have a certain limit, if society put the excessive expectations on Higher Education College and make the universities overload, it will cause ecological imbalance. Our country is country has a simplex value system, and due to social and historical reasons, many people worship the university and have a sense of mystery, and even some parents’ all hope is to send their children to college. This is an unhealthy attitude; this attitude is from their selves’ ignorance and self-pity. Therefore, we should promote diversity of values, and divert school-age youth, which will also help train various types of personnel the social needs. Meanwhile to recruit older students demonstratively also can ease college stress. Second is to coordinate the relationship between universities and the surrounding environment. Clark Kerr has pointed out that the United States there is one of the reasons that the diversified universities exist is because the university get along with surrounding environment harmoniously. [5] Ashby also said the greatest contribution the United States made to higher education is the removal of the campus walls. [6] We can see importance of the relationship between universities and their surrounding environment. Therefore, we should take the initiative to improve the surrounding environment, such as community, residents, and the relationship between various departments. We should interact with the surrounding environment; get along with each other harmoniously and promote mutually. We should treat the surrounding environment as a ecological factor of colleges.

- "Any kind of university is a product of heredity and environment." In our country, because of historical reasons of the planned economy, the government managed colleges and universities strictly, until now; there is not a big change on this. Especially the "211 Project", "985 Project" as well as college "wage reform," the government-led teaching assessment, strengthen the government control of universities objectively. Because universities’ education fund in China is mainly from the government, the government is in control of the basic school funding, school resources, and evaluation right. Therefore, the Government must assume responsibility and mission for coordinating the relationship between universities and government in the reform process. The government also can establish a new relationship between the government and universities according to an eco-management philosophy. [8] At the same time, colleges and universities need to take the initiative to strengthen the communication and thought with government departments and express a strong desire to reform.

4.2 Reform the Internal Ecological and Cultural Environment of the Campus

- To solve various problems of higher education, reform the internal ecological and cultural atmosphere of the campus, we need to fix the position of higher education reasonably firstly. Ecological niche theory tells us that every individual has a reasonable position in the education ecosystem, has its legal basis. University neither shift position from high position to low position,

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nor can not climb up to a high position. It will have a healthy development only to identify their location. For example, Tsinghua University has announced its withdrawal from the network academic education. In fact, it is to correct the high-low shift phenomenon. At present, many universities in order to pursue short-term interests they increase the enrollment sharply. It is difficult to pursue the excellent culture in such an overloaded operation of higher education. And it also gives us a lot of pressure, not only can not run out the adult education and self-taught examination of higher education well, also affects the school's teaching quality.

To fix position reasonably includes three meanings: The first is roles position; the second is the subject specialty position; the third is educatees also need reasonable position. Each ecological factor must follow their own ecological laws; make full use of its own characteristics and advantages to promote the rapid and healthy development of ecosystem of education. [9]

- Internal management structure of universities and colleges is the key factor for them to serve the society and to get a harmonious development, is the institutional basis for striving for excellence. Currently the traditional officialdom standard thought has flooded. Actually, this is a response on the relationship between the government and universities, is a non-ecological phenomenon. To change the traditional officialdom standard thought flood and the declining academic power status, the universities, especially the universities who have the long history and prestige should make efforts to strengthen the academic powers, take the first step and move forward gradually, besides building a new relationship between government and universities.

5. Summary

In summary, the ecological management is a new management style, new management thinking. It uses the ecological principles and systematic view to analyze the problems and their causes. The ecological technology and methods are their management tools. The guiding ideology of management is system coupling, conjugation and symbiosis; the management priority is to foster ecological thinking. This management philosophy is to be reasonable, orderly, sunny, healthy and harmonious; and the purpose is to solve all the problems inside and outside the system, and to optimize the overall sustainable development finally. The ecological management is applied to higher education and form the higher education’s ecological management. Because its eco-management ideas and purposes, this management will solve the problems in the development process of higher education, and promote the harmonious development of higher education.

6. Acknowledgment

The preferred spelling of the word “acknowledgment” in America is without an “e” after the “g”. Avoid the stilted expression, “One of us (R. B. G.) thanks . . .” Instead, try “R. B. G. thanks”. Put sponsor acknowledgments in the unnum-bered footnote on the first page.

References