

Exploration of Higher Education Management from the Perspective of Educational Ecology

Chen Chunhui

[**Abstract**] The core of higher education management from the perspective of educational ecology is to build a multi-level, multi-agent and diversified ecosystem to realize sustainable development and quality improvement of higher education. This paper will conduct in-depth research on the basis of ecology theory of higher education management, as well as characteristics, practical exploration, and future prospects of higher education management from the perspective of educational ecology, and explore the theoretical and practical connections between higher education management and ecology, as well as how to promote the internationalization and innovative development of higher education. In short, the research on higher education management from the perspective of educational ecology will help to build an ecosystem, which can meet the requirements of modern social development, improve the quality of higher education, and cultivate more talent resources for the country and society, as well as for higher education management.

[**Key words**] educational ecology; higher education

[**About the author**] Chen Chunhui (1980—), female, from Chengdu, Sichuan, China, associate professor in Southwest University of Science and Technology. Research interests: higher vocational education, educational ecology.

[**Website**] www.oacj.net

1 Introduction

1.1 Concept and development of educational ecology. Educational ecology is a discipline that studies ecological environment, ecosystem and balance of education. It focuses on the overall process and situation of education, and aims to reveal the interaction and influence between education and various factors such as environment, society and economy, as well as the ecological balance among these factors. Educational ecology began in the 1970s and has been extensively focused and researched in western countries since then. Since the 1980s, educational ecology has received attention from China and become one of the frontier disciplines in interdisciplinary integration of pedagogy, environmental science, sociology, psychology, etc.

The research scope of educational ecology includes natural, human, social, and cultural factors of educational environment, as well as the interaction and influence among these factors. The goal of educational ecology is to explore the overall situation and integrity of education, improve the quality and effect of education, and promote the advancement of individuals and society through the study of ecological environment, ecosystem and balance of education.

1.2 Research background and significance of higher education management from the perspective of educational ecology. In contemporary society, as higher education provides an important support for the economic and social development of countries and regions, its management and operation are of great significance for the advancement of the whole society. However, higher education management is faced with many challenges and problems, such as uneven distribution of resources, unreasonable curriculum, and declining teaching quality, which need to be studied and solved from the perspective of educational ecology. The research background and significance of higher education management from the perspective of educational ecology mainly include the following aspects:

Solve the problems of higher education management. The traditional management method of higher education pays too much attention to details, while ignoring the integrity and balance of education ecosystem. The perspective of educational ecology can help administrators better understand the composition of higher education ecosystem,

improve management level, and resolve contradictions and problems in higher education management.

Promote the development and innovation of higher education. The development of higher education requires constant adaptation and innovation. The perspective of educational ecology can help administrators better grasp the overall development trend of higher education and promote its reform and innovation.

Strengthen the social responsibility and publicity of higher education. Higher education is not only to meet individual needs, but also to promote social development and progress. The perspective of educational ecology can help administrators better understand the social responsibility and publicity of higher education, and strengthen the connection and interaction between higher education and society.

Improve the quality and effect of higher education. The perspective of educational ecology can help administrators better grasp the balance and development law of education ecosystem, and improve the quality and effect of higher education.

1.3 Research purpose and method of higher education management from the perspective of educational ecology. The research purpose of higher education management from the perspective of educational ecology is to explore the internal law and development trend of higher education management through the analysis of higher education ecosystem, and to provide scientific decision-making basis for higher education administrators, so as to promote the sustainable development of higher education and improve its quality and effect. In order to achieve the above objectives, the research methods of higher education management from the perspective of educational ecology mainly include the following aspects:

System analysis. The research of higher education management from the perspective of educational ecology needs to take higher education ecosystem as the research object, deeply explore the structure, function and evolution law of higher education ecosystem through system analysis, reveal the problems and bottlenecks in higher education management, and then put forward reasonable management countermeasures.

Statistical analysis. The research of higher education management from the perspective of educational ecology needs to rely on data. By analyzing and interpreting the data of higher education management using statistical analysis, we can understand the current situation and trend of higher education management and provide scientific management ideas for administrators.

Comparative research. The research of higher education management from the perspective of educational ecology needs to compare the differences and commonalities between different higher education ecosystems, in order to find excellent management experience and methods, learn from them and promote them.

Empirical research. The research of higher education management from the perspective of educational ecology needs to verify and test the theoretical hypothesis and explore the internal mechanism and laws of higher education management through empirical research.

2 Characteristics of higher education from the perspective of educational ecology

2.1 Ecological environment of higher education. The ecological environment of higher education refers to the environment and conditions of higher education, including policy environment, economic environment, cultural environment, social environment and others. These factors interact with each other to form the ecological environment of higher education and affect the development and quality of higher education.

Policy environment: policy environment is an important support for higher education. Changes in national policies, and formulation and implementation of laws and regulations will have an impact on higher education. The stability and support of policy environment is conducive to the sustainable development of higher education.

Economic environment: economic environment is the basis for the development of higher education. Higher education needs a lot of investment, including campus construction, equipment procurement, teacher cultivation and scholarships. The quality of economic environment will directly affect the quality and level of higher education.

Cultural environment: cultural environment is an important background of higher education. Cultural traditions, values and education concepts will have a profound impact on the development of higher education. The diversity and openness of cultural environment are conducive to the innovation and progress of higher education.

Social environment: social environment is the external environment of higher education. The expectation and

evaluation of society on higher education will directly affect the development of higher education. Higher education needs to adapt to social needs and establish good interaction with all social sectors in order to play a greater role.

2.2 Ecosystem of higher education. The ecosystem of higher education refers to an ecosystem composed of various interacting factors, including various participants in higher education institutions, i. e. students, teachers, government, industry, social organizations, etc. They interact with each other to form the ecosystem of higher education and affect the quality and level of higher education.

Higher education institutions: Higher education institutions are the core of higher education ecosystem. They provide higher education courses and training for students to acquire knowledge and skills, and serve as the center of research and innovation.

Students: Students are an important part of higher education ecosystem. They are the beneficiaries of higher education and the main body of future development, who have a direct impact on the quality and level of higher education.

Teachers: Teachers are key factors in higher education institutions. They provide education and guidance for students, and serve as important promoters of research and innovation.

Government: The government is an important regulator and decision – maker of higher education. Policy formulation and investment have a decisive impact on the development of higher education.

Industry: Industry is a partner of higher education, which cooperates with higher education institutions to carry out research, provides internship and employment opportunities, and provides practical experience and employment support for students.

Social organizations: Social organizations are important supporters of higher education. They provide support for higher education through donation, sponsorship and other ways, and provide supervision and feedback for higher education through social participation and feedback.

2.3 Ecological balance of higher education. The ecological balance of higher education refers to the relatively stable and balanced relationship among all participants in the ecosystem of higher education. Only on the basis of ecological balance can higher education ecosystem develop in a healthy way. The core of ecological balance of higher education is the coordination and balance among all participants, including:

The balance between higher education institutions and students. Higher education institutions need to provide high-quality education and training for students, and also need to develop teaching plans and training courses according to students' needs and interests to improve their learning motivation.

The balance between teachers and students. Teachers need to design teaching contents and methods according to students' learning conditions and needs, and also need to pay attention to their physical and mental health and all-round development.

The balance between higher education institutions and industry. Higher education institutions need to understand the needs and development trends of the industry in order to formulate courses and training plans that are more responsive to actual needs, and also need to establish cooperation with the industry for more practical opportunities and employment support.

The balance between the government and higher education institutions. The government needs to provide sufficient investment and policy support for higher education, and also needs to supervise and evaluate higher education institutions to ensure the quality and level.

The balance between social organizations and higher education institutions. Social organizations can provide resources and support for higher education, and need to supervise and feedback higher education institutions to ensure their transparency and fairness.

3 Theoretical basis of higher education management from the perspective of educational ecology

3.1 Relationship between educational ecology theory and higher education management. Educational ecology is a subject that studies the interaction between education and various factors such as environment, society and economy. It emphasizes that education is not only a separate system, but also a complex system that interacts

with and affects various factors such as society, economy and environment. In the field of higher education management, the theory of educational ecology can provide many useful enlightenment and guidance, including the following aspects:

The theory of educational ecology provides a holistic way of thinking. Higher education management needs to consider a highly complex system. Only by considering problems from a holistic perspective can we better grasp operating mechanism of the system. Educational ecology emphasizes the interaction between education and various factors such as environment, society and economy. It is helpful to better understand operating mechanism of higher education by considering problems from a holistic perspective.

The theory of educational ecology emphasizes the interaction between education and various factors such as environment, society and economy. As an important part of society, higher education must be affected by various factors such as environment, society and economy in its development and management. Educational ecology emphasizes the interaction between education and these factors, which provides more thinking directions and solutions for higher educational administrators.

The theory of educational ecology connects educational system and other social systems. As a system, higher education interacts with other social systems. The theory of educational ecology can provide a more systematic and comprehensive way of thinking, so that higher educational administrators can better grasp and understand these links and functions.

The theory of educational ecology provides a scientific basis for educational management. Educational ecology is a science that explores the interaction between education and various factors such as environment, society and economy. It provides a scientific basis for higher education management, through which higher educational administrators can better understand the nature of education, so as to conduct a scientific management of higher education.

Therefore, the theory of educational ecology is closely related to the management of higher education. Educational administrators can better grasp operating mechanism and management of higher education by learning the theory of educational ecology.

3.2 Characteristics and requirements of higher education management from the perspective of educational ecology. Educational ecology is a theoretical framework that links educational system with social, cultural, economic and environmental systems. It studies educational phenomena from a holistic and systematic perspective. Therefore, higher education management from the perspective of educational ecology has the following characteristics and requirements:

Holistic thinking: from the perspective of educational ecology, higher education management should consider issues from a holistic perspective, grasp operating mechanism of the higher education system from a macro perspective, understand the interaction between the education system and social, cultural, economic, and environmental systems, and their impact on higher education.

Systematic management: higher education is a complex system with interdependent and interactive internal subsystems. Therefore, higher educational administrators need to manage higher education from a systematic perspective, and integrate and coordinate all subsystems organically.

Forward-looking planning: higher educational administrators need to be forward-looking and consider the development of higher education from a long-term perspective. They need to analyze and predict the future development trends of society, economy and technology, and formulate strategic plans for the development of higher education.

Diversified management: higher educational administrators need to pay attention to the diversity and complexity within the higher education system. They need to flexibly use different management methods and skills to adapt to the needs and characteristics of different subsystems and different stakeholders within the higher education system.

Social responsibility: higher educational administrators need to have a strong sense of social responsibility. They need to pay attention not only to the internal operation of the higher education system, but also the

contribution and impact of higher education system on society. They need to consider how to make higher education better serve the society and promote social development.

3.3 Main ideas and methods of higher education management from the perspective of educational ecology. The main idea of higher education management from the perspective of educational ecology is to regard the higher education system as an ecosystem, which is interdependent and interacts with other systems. The main task of higher education management is to maintain the stability of the system and promote its development to a more healthy and stable state. The following are several higher education management methods from the perspective of educational ecology:

System analysis: System analysis is a method of decomposing complex higher education system into different subsystems. By analyzing the relationship and interaction between different subsystems, we can understand the overall operation of the higher education system. This method can help administrators to better grasp the interdependence and interaction among subsystems within the higher education system, thus facilitating the overall management of the higher education system.

Ecological balance: Ecological balance is a method that aims at ecological balance and maintains the internal stability and development trend of higher education system through the intervention and control of administrators. This method attaches importance to mutual restriction and promotion among the subsystems within the higher education system, and achieves internal ecological balance of the higher education system through the optimal allocation of education resources, the rational allocation of education investment, and the formulation of education policies.

Forward-looking planning: Forward-looking planning is a method of formulating a scientific and reasonable development plan for higher education through the prediction and analysis of the future development trends of society, economy and technology. It attaches importance to long-term development and future trend of the higher education system, and can help the higher educational administrators to formulate more scientific and reasonable strategies and plans.

Innovative development: Innovative development is a method to promote the sustainable development of higher education system through innovative education concepts, models, content, etc. This method attaches importance to the innovation and reform of higher education, and pays attention to exploring the potential and innovation capacity of higher education, so as to meet the needs of society in a more effective way.

4 Practical exploration of higher education management from the perspective of educational ecology

4.1 Ecological transformation of higher education management. The ecological transformation of higher education management refers to the transformation of the management concept and mode of higher education system into the management mode based on ecology. The model regards higher education system as an ecosystem, pays attention to the interdependence and interaction between the subsystems, pursues the balance and stability within higher education system, and promotes the development of higher education system to a more healthy and stable state. The ecological transformation of higher education management includes the following aspects:

Change of management concept: The traditional higher education management mode focuses on centralized management. The administrators are usually equipped with centralized rights, which consist of rights in decision-making and execution. The ecological management model focuses on multiple participations, decentralizing rights to all relevant groups, encouraging them to participate in the management and development of the higher education system, and promoting democratization, equality and diversification within the higher education system.

Innovation of management mode: The ecological management mode requires higher educational administrators to adopt flexible and innovative management mode to adapt to the interaction and changes between various subsystems within the higher education system. This includes encouraging innovation, carrying out pilot projects, and implementing flexible management methods such as decentralized and joint management.

Rational allocation of educational resources: The ecological transformation of higher education management

also needs to pay attention to rational allocation of educational resources, allocating resources to various subsystems, and promoting resource sharing and coordinated development. This requires higher educational administrators to make scientific and reasonable planning and decision-making on the allocation of educational resources.

Improvement of education quality: Under the ecological management mode, higher educational administrators should pay attention to improving the quality of education, strengthen the quality control of teaching and scientific research, promote the resource sharing and cooperation among various subsystems, and improve the comprehensive quality and competitiveness of education.

4.2 Ecosystem construction of higher education management. The ecosystem construction of higher education management refers to the establishment of a coordinated, orderly and interactive management ecosystem in higher education to meet its needs of sustainable development and quality improvement. It involves the synergy of various subjects, including government, universities, students, teachers, industry associations and the public. The following are some key elements that may be included in the ecosystem construction of higher education management:

Policies and regulations: The formulation of policies and regulations can promote the normal operation of higher education management, standardize the behavior of various higher education institutions, and ensure the fairness and quality of higher education.

Educational resources sharing: The ecosystem construction of higher education management requires cooperation and resource sharing among universities, such as joint development of courses, and sharing of libraries, laboratories and other educational resources.

Information technology: The application of information technology can facilitate the communication, resource sharing, and student management among colleges, and is conducive to improving the teaching quality and efficiency of higher education.

Teaching quality assurance: Establishing a monitoring and evaluation mechanism for teaching quality will help strengthen the management of teaching process and results, conduct all-round monitoring and evaluation of teaching quality, and provide students with better learning experience and higher-quality education resources.

Student training: The ecosystem construction of higher education management should focus on the overall development of students, encourage students to participate in practice, innovation and entrepreneurship, and cultivate their comprehensive quality.

Construction of teacher team: Strengthen the training and exchange of teachers, improve the teaching ability and level of teachers, and strengthen the construction of teacher team will provide a strong guarantee for the sustainable development of higher education.

4.3 Regulation of ecological balance for higher education management. The regulation of ecological balance for higher education management refers to coordinating the interests of all parties and maintaining balance in higher education to achieve the goal of sustainable development. Higher education is a diversified system, including the government, universities, teachers, students, parents, employers and other stakeholders. Therefore, comprehensive and multifaceted regulation is needed to achieve its healthy development. The following are some key elements that may be included in the regulation of ecological balance for higher education management:

Formulation of policies and regulations: Policies and regulations are the basis of higher education management. It is necessary to formulate operable and enforceable policies and regulations to regulate the development of higher education.

Optimal allocation of resources: Higher education resources, including talents, materials and funds, need to be balanced among various stakeholders to maximize the utilization efficiency.

Demand and supply of education: Demand and supply are important in the regulation of ecological balance for higher education management. It is necessary to formulate a scientific and reasonable enrollment plan, as well as a reasonable curriculum and talent training program to meet the needs of different groups.

Quality control: The quality control of higher education is the key to ensure its sustainable development. It is necessary to establish an effective quality monitoring and evaluation system to continuously improve the quality level of higher education through the monitoring and evaluation of education quality.

Innovative development: The regulation of ecological balance for higher education management needs to encourage innovation and promote the innovative development of higher education to meet the new socio-economic development needs.

Reasonable benefit distribution: The regulation of ecological balance for higher education management needs to balance the distribution among various stakeholders, reasonably allocate education resources, meet the needs of different groups, and realize the sustainable development of higher education.

5 Future outlook on higher education management from the perspective of educational ecology

5.1 Challenges and opportunities faced by higher education management from the perspective of educational ecology. Educational ecology is a systematic research method, which mainly studies the interaction and influence between education system and surrounding environment. Therefore, it can be used to analyze the challenges and opportunities faced by higher education management.

On the one hand, higher education management faces the following challenges from the perspective of educational ecology:

Unbalanced distribution of resources: The uneven distribution of higher education resources among different regions and universities has led to the imbalance of the quality and level of higher education. Measures need to be taken to adjust the distribution of resources.

The standards of education evaluation are not clear: Problems such as unclear standards of higher education evaluation and single evaluation method make the quality evaluation of higher education subjective and one-sided to some extent, and it is necessary to establish a diversified and scientific education evaluation system.

Information technology lags behind: The information technology of higher education management lags behind, resulting in a low efficiency of higher education management. It is necessary to promote information technology and make higher education management more scientific, accurate and efficient.

On the other hand, higher education management also faces many opportunities from the perspective of educational ecology:

Support from national policy: The support from national policy provides a strong guarantee for the development of higher education and provides more opportunities for higher education management.

Transformation of industrial structure: The transformation of national industrial structure has increased the demand for scientific and technological innovation and talent cultivation, providing more development opportunities for higher education management.

Trend of education internationalization: The trend of education internationalization is accelerating. Higher education management needs to adapt to the trend of internationalization, develop international cooperation, and improve the international influence of higher education.

5.2 Research direction and focus of higher education management in the future from the perspective of educational ecology. From the perspective of educational ecology, the research direction and focus of higher education management in the future may include the following aspects:

Balanced distribution of educational resources: Higher education management needs to study how to achieve balanced distribution of educational resources among different regions and universities through various means, so as to improve the overall level and quality of higher education.

Diversification of education evaluation: Higher education management needs to study how to establish a diversified and scientific education evaluation system, and comprehensively and objectively evaluate the quality and level of higher education through evaluation indicators of different dimensions and angles.

IT-based higher education management: Higher education management needs to study how to further promote

information technology and establish advanced information management system, so as to make higher education management more efficient, accurate and scientific, and improve the overall level and quality of higher education.

Education internationalization and higher education management: Higher education management needs to study how to adapt to the trend of education internationalization, strengthen international cooperation and exchange, improve the international influence of higher education, and further improve the overall level and quality of higher education.

Education innovation and higher education management: Higher education management needs to study how to promote education innovation, explore new higher education models, carry out education reform, and continuously improve the teaching quality and innovation ability of higher education, so as to provide strong support for the development of higher education.

5.3 Practical value and social significance of higher education management from the perspective of educational ecology. From the perspective of educational ecology, the practical value and social significance of higher education management are mainly reflected in the following aspects:

Promote the sustainable development of higher education: From the perspective of educational ecology, higher education management can help realize the balanced distribution of education resources, the improvement of education quality and the promotion of education innovation, thus promoting the sustainable development of higher education and providing strong support for the sustainable development of social economy.

Improve the quality and level of higher education: From the perspective of educational ecology, higher education management can help optimize the allocation of higher education resources, and improve the quality and level of higher education, so as to improve the comprehensive quality and employment competitiveness of students, and make contributions to social progress and development.

Promote education internationalization: From the perspective of educational ecology, higher education management can promote international cooperation and exchange, improve the international influence and competitiveness of higher education, and provide strong support for the internationalization process of higher education in China.

Cultivating high-quality talents: From the perspective of educational ecology, higher education management can help cultivate high-quality talents, promote the improvement of students' comprehensive quality and innovation ability, and cultivate more talent resources for the country and society.

Higher education management from the perspective of educational ecology has important practical value and social significance. It can help realize the sustainable development of higher education, improve the quality and level of higher education, promote the internationalization of education, cultivate high-quality talents, and make important contributions to the progress and development of society.

References:

- [1] Li Yue, Li Pan. Research on the Educational Management Dilemma and Countermeasures of Private Higher Vocational Colleges from the Perspective of Educational Ecology[J]. Journal of Hubei Open Vocational College, 2022, 35 (23).
- [2] Li Liyang. Training Mode of Accounting Professional Skilled Talents in Higher Vocational Education from the Perspective of Educational Ecology[J]. Journal of Hubei Open Vocational College, 2022, 35 (12).
- [3] Lin Jing. Construction of Ecological Teaching System of Higher Vocational Public English under the "Belt and Road" Initiative[J]. Journal of Hubei Open Vocational College, 2022, 35 (3).
- [4] Cao Yue. Deepening the Ideological and Political Education of College Students from the Perspective of Ecology[J]. Environmental Engineering, 2022, 40 (3).
- [5] Liu Pingping. Exploration of the Development of China's Sports Colleges and Universities from the Perspective of Educational Ecology[J]. Environmental Engineering, 2022, 40 (1).