Green University: A New Perspective on Construction of Heterogeneous Competence of Application-Oriented Universities

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Abstract. Ecological ethics and moral education is an important content of current moral education in college and universities which assume the role of education for sustainable development. The construction of green university is to integrate the concept of sustainable development into university construction, to cultivate students’ green consciousness and consciousness and green ability into the school training plan, shaping the green talent through development green education, incorporating new concepts in university education, enriching and vivid the content of higher education provides new patterns and methods for talent training.

Historical Development: From "Traditional Managing Education" to "Green Education"

At present, the rapid development of China's social economy, and remarkable progress in science and technology, and then followed by heavy ecological crisis, all kinds of environmental pollution and waste of resources and so on. While creating progress, mankind has created all kinds of "crises" that endanger their own development. Colleges and universities, especially application-oriented universities, that is to say the main position of training applied talents, the students who advocate training can become a useful person, and hope that with labels of "cultivate practical". In addition, colleges and universities are indeed the important period of the formation and development of the world Outlook, values and outlook on life of young students[1]. Therefore, ecological ethics education should be extensively and profoundly carried out, not only affect life of student, and also it influences and determines the formation and establishment of ecological moral concept and behavior norm in Application-oriented Universities. It is worth noting the ecological ethics of moral education in colleges and universities as a dominant and recessive coexistence of new moral education significance; it happened in teaching of daily activities all the time, but often neglected. And concluded that this education requires educators to start from the ecological education view of interdependence between man and nature, harmony and mutual benefit, to inspire and guide application of university students in order to establish the human nature to enjoy long-term interests and better to enjoy nature and life, consciously cultivate and cherish natural environment and ecological environment consciousness and corresponding habits of civilization.

The Rise and Development of “Green Education”

At present, the development of ecological ethics in colleges and universities is still lacking, many universities have one-sided view of environmental education courses have been set up to achieve this education, formulaic teaching can not arouse too much ecology consciousness of students[2]. On the contrary, lack of systematic and comprehensive ecological knowledge, increasingly weak ecological outlook and gradually lack of ecological behavior, eventually leads the students lack of social ecological awareness and understanding who trained in application-oriented university, "you can use what you can," but you don't know "keep it for a long time", to a certain extent restricts the students' overall concept and formation of long-term view.

In 80s and 90s of last century, universities in some western developed countries began to consider how to build universities into a model of environmental excellence and sustainable
development - "Green University". The plan has had a huge impact on universities across every country, some famous universities in America and Europe have started different levels of green action plan, such as “campus environmental project” of the United States California university, “green university plan” of University of Washington, “campus green action” of Canada University of Waterloo etc. Then, some universities in China have gradually developed similar actions, such as Tsinghua University and Harbin Institute of Technology and other colleges and universities began to develop similar programs, we summarize this phenomenon as "green university view". The gradual development of "green university view" provides new paradigm and path for development of Application-oriented Universities.

Generating Cause: Green Characteristics has Become the Heterogeneous Competitiveness of Application-Oriented Universities

Green universities should become a new viewpoint to construct competitiveness of application oriented university. In today's world, the problem of resources and environment have become an important issue that restricts economic and social development [3]. It has become a consensus that human economic development can not overload the affordability of environment and resources. Application oriented colleges and universities take talent training as the center, to fulfill the three functions of teaching, scientific research and social service. Application oriented colleges and universities are responsible for leading society and disseminating civilization, in promotion of resource-saving and environment-friendly society construction have an important position [4]. The construction of green applied universities is one of the goals for application oriented universities in China. Wheter in education, scientific research and social services, set up green concept and practice of green action is the request of talent cultivation, sustainable development strategy, strategy of rejuvenating are embodied in universities target. The construction of green applied universities is to integrate the concept of sustainable development into the construction of Application-oriented Colleges and Universities, and to train green awareness and green ability of students incorporate into school training program, by carrying out green education to create green talents, we should integrate new ideas into the application oriented higher education, enriched and vivid content of higher education, and provide new models and methods for personnel training.

Implementation Strategy: “Five-in-One” Type of Application Oriented University to Create Green Peculiarity

The definition of "green applied university" can be concluded that the key elements of current application oriented universities green competitiveness is establishment of popularization of green concept and green activities. It mainly includes the following aspects as shown in Figure 1.

Integrating Green Concept and Carrying out Green Education

Green education is an important content of establishing Green Applied Colleges and Universities, one of important ways to cultivate talents, and one of important measures to improve the students' sense of social responsibility. Green education requires school integrated teaching and practice of environmental protection and sustainable development of all-round education into natural science and social science curriculum, making it become a necessary part of school curriculum[5]. Universities must combine its own three-in-one function of "production, learning and research", infiltrating the green education into idea and principles of applied universities, and reflect green education in application-oriented colleges and universities are different from primary and secondary education green advantages and characteristics. We should follow the principle of universality, integrity and specificity, that requires all students to carry out all-round and distinctive environmental awareness education activities, and through green education to cultivate green talents for society.
The application of higher education is open-type, which advocates thoughts of all-inclusive and tolerance brings respect, the class situation is diversified, and there is a big difference between classes in primary and secondary schools. Therefore, schools should take full account of the characteristics of application-oriented students in process of green education, to carry out various forms and flexible and innovative courses, and let students become the masters of classes, teachers are just mentors, and let students to explore and feel green[6]. In the content and form of teaching, we should constantly bring forth new ideas, in addition to green education curriculum system establishment perfect, according to different subjects, elective courses for students of different grades set of environmental protection and sustainable development, but also make full use of school holidays and anniversaries, carry out green environmental protection practice, combine green education in education practice. In practice, enrich students' environmental knowledge, cultivate their green behavior patterns, increase their environmental protection skills, and bring up green talents.

To Cultivate “Green Consciousness” and Develop “Green Scientific Research”

The meaning of green scientific research is that the concept of environmental protection and sustainable development runs through all aspects of scientific research, and advocated minimal pollution to environment in scientific research and technical development process, promote to develop green products and technology, pay attention to sustainability of scientific research methods, so as to achieve win-win environmental and economic benefits of scientific research. The indicators of green scientific research are green technology, green project and green product. The green school through scientific research, on the one hand to create green products for the society, and promote the social development of green; on the other hand, through promotion of green scientific research, we can strengthen the environment awareness of teachers and students, and improve the analysis of environmental problems and solve environmental problems.

Another function of universities and colleges is scientific research, for application-oriented universities, it is mainly to carry out applied scientific research, establish scientific research bases closely related to development of new social forms, and train students' scientific research ability through these bases. To strengthen construction of innovative country in scientific research is
"Ten-Three-Five" development planning, to construct innovative country and national innovation system, and also the needs of the construction of resource-saving and environment-friendly society. Colleges and universities are not only the base of talent training, but also the base of scientific research. The founders of application of green colleges and universities should fully support and encourage development of green technology, it is necessary to strengthen the environmental pollution and improve environmental quality in scientific and technological research, give priority to develop technology, process and equipment of conforms with ecology principle accords with the ecological principle, and research to hardware technology of reduce material consumption, energy consumption and pollutants. At the same time, it is necessary to strengthen education of environmental awareness of scientific and technological practitioners, speed up study of environmental soft science, and discuss the important problems in environment and social development, strive for comprehensive research from social, economic, political, technological and other aspects, in order to carry out environmental protection of regional economy, and provide scientific decision-making basis for sustainable development.

To Promote “Green Function” and Create “Green Campus”

Green campus means building an environment with pleasant, reasonable distribution, good ecological cycle and harmonious green, the construction of green campus is one of important contents of green applied colleges and universities. The campus environment of application of green colleges and universities includes not only natural and beautiful ecological environment, but also includes harmonious cultural environment [7]. Construction of ecological environment including greening and beautification, school canteens meet health standards of school, reduce pollution to surrounding environment, school laboratory clean operation, effective disposal of waste, construction of water and electricity saving facilities, implementation of paperless office, construction of pollution treatment and purification facilities and etc of application of colleges and universities campus. The construction of harmonious human environment includes building democratic and orderly management atmosphere, harmonious teacher-student relationship, free and active academic atmosphere, lively campus activities, and fostering good style of study, teaching style and school spirit.

To construct a green campus environment with rational distribution, good ecological cycle and full of vitality is the basic content of green applied colleges and universities, and it is also must for cultivating green talents. Green campus, on the one hand, refers to greening and beautification of campus, pollution prevention and ecological protection, including environmental sanitation conditions, such as clean campus roads, clean classrooms and dormitories, and sanitary standards for canteens; pollution control measures, such as handling information of sewage and rubbish produced by schools, prevention and control noise and exhaust gas, also advocate paperless office and so on. Besides, the construction of campus culture is also an important part of green campus construction, to cultivate the spirit of campus culture so as to create green talents and create green harmonious and spiritual environment. Application-oriented colleges and universities management reflects the student-oriented management mode, from construction of good style of study, teaching style and school spirit, to create democratic and orderly management atmosphere, the establishment of a fair, democratic academic order, building a green and harmonious campus culture atmosphere, and establish academic orderly with justice and democratic, build up green and harmonious culture atmosphere.

To Promote “Green Function” and Guide “Green Behavior”

The third function of colleges and universities is social service and leading function, which can be divided into cultural function and ecological function. And others have attributed the functions of application-oriented colleges and universities as the following four functions: teaching, research, service and communication. The communication here refers to civilized and cultural communication of modern applied colleges and universities, especially the coordinated
development of humanities education and science education needs comprehensive communication, such as the communication of theory and practice, the communication of sensibility and sense, the communication of self and others, individuals and society, and the interaction between human and nature......that is to “learning to live together”, this is a kind of embodiment of social responsibility and times responsibility of Modern Applied University. The establishment of green applied universities reflects the University's commitment to social responsibility and its social functions. Colleges and universities need to fully interact with surrounding communities in application oriented colleges and universities, green application colleges and universities in sustainable development and construction should also play role to radiation effect of social. In this sense, the function of applied colleges and universities is not only "ivory tower" which pursues advanced knowledge, but also serves as a "service station" to meet needs of social development.

Abundant and positive green activities are great importance to cultivation of green talents. Colleges and universities generally set up students environmental protection associations, these organizations not only for students to communicate with carrier, and beneficial to train the green behavior pattern of applied colleges and universities students, and it’s also a major platform for communication between schools and communities. The student environmental protection association is different from other student organizations, focusing on education service groups, and it is a social significance of community. The school through publicity and education to guide society for environmental protection knowledge to community, and encourage students to participate in community environmental protection activities, such as together organize to importance activities of “6.5” World Environment Day etc., with surrounding communities environment. Through organization of activities, on the one hand, to enable students to complete self education in social practice, and to cultivate their innovation spirit, practice ability and good environmental moral consciousness; on the other hand, through students' social publicity activities, to arouse the concern of broader environmental issues, make positive contribution to our environmental protection.

Summary

Application-oriented colleges and universities, as the cradle of training applied talents, all links and educational nodes of application-oriented colleges and universities should related to application-oriented students. The main purpose of establishment of green applied universities is cultivate green talents for society. There are many ways for cultivation of green talents, and the training methods can also be different. It can be systematically cultivated through vivid green education, and it can also be nurtured by creating green atmosphere and carrying out green action. All of these educational activities are carried out in an effort to cultivate green talents, establish correct ecological ethics and moral consciousness and save resources, and protect environment values, following the concept of sustainable development, and realize the harmonious development between man and nature.

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