

ECOLOGICAL CIVILIZATION EDUCATION IN QINGDAO
HENGXING UNIVERSITY

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A thesis submitted in partial fulfillment of the requirements for the
Degree of Doctor of Philosophy Program in Educational Administration


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ABSTRACT

The objectives of the research include: 1) To analyze the current situation and problems of ecological civilization education in Qingdao Hengxing University; 2) To formulate the content and strategy of ecological civilization education in Qingdao Hengxing University; 3) To improve the innovative mechanism of ecological civilization education in Qingdao Hengxing University. The sample groups are 1595 students with valid questionnaires and 12 teachers interviewed in Qingdao Hengxing University. The research instruments are questionnaire, interview and model building.

The results show that the students of Qingdao Hengxing University have a good understanding and agree with ecological civilization. The students of different grades have similar cognition of ecological civilization. Gender has less influence. Online media, academic lectures and classroom reports are the main way to obtain ecological civilization information. The education and activities in university, community and social organizations are considered to be more effective ways. The researcher puts forward the contents and effective strategies of ecological civilization education in the new era. Finally the researcher build the dynamic balance and open sharing mode of the home, university and social ecosystem.

Keywords: Ecological civilization, Educational content, Effective strategy, Innovation mechanism

ชื่อเรื่อง	แนวทางจัดการศึกษาแบบอารยธรรมนิเวศวิทยาศึกษาใน มหาวิทยาลัยเหิงซิง เมืองชิงเต่า
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ปีการศึกษา	2566

บทคัดย่อ

วัตถุประสงค์ของการวิจัย คือ 1) เพื่อวิเคราะห์สถานการณ์ปัจจุบันและปัญหาของการจัดการศึกษาแบบอารยธรรมนิเวศวิทยาในมหาวิทยาลัยเหิงซิง เมืองชิงเต่า 2) เพื่อกำหนดกลยุทธ์และเนื้อหาของการจัดการศึกษาในรูปแบบแบบอารยธรรมนิเวศวิทยาในมหาวิทยาลัยเหิงซิง เมืองชิงเต่า 3) เพื่อปรับปรุงกลไก นวัตกรรมจัดการศึกษาในรูปแบบอารยธรรมนิเวศวิทยาในมหาวิทยาลัยเหิงซิง เมืองชิงเต่าให้มีประสิทธิภาพ กลุ่มตัวอย่างในการวิจัย คือ นักศึกษามหาวิทยาลัยเหิงซิง เมืองชิงเต่า จำนวน 1,595 คน และอาจารย์ประจำของมหาวิทยาลัยเหิงซิง เมืองชิงเต่า จำนวน 12 คน โดยใช้เครื่องมือในการวิจัย ประกอบด้วย แบบสอบถาม การสัมภาษณ์ และการสร้างโมเดล

ผลการวิจัยพบว่า นักศึกษาจากมหาวิทยาลัยเหิงซิง เมืองชิงเต่ามีการรับรู้อารยธรรมทางนิเวศวิทยาโดยภาพรวมอยู่ในระดับดี การรับรู้เกี่ยวกับอารยธรรมทางนิเวศวิทยาของนักศึกษาในชั้นปีต่าง ๆ มีความคล้ายคลึงกัน โดยเพศสภาพมีผลกระทบต่อการรับรู้ น้อย นักศึกษาเข้าถึงข้อมูลอารยธรรมทางนิเวศวิทยาผ่านทางสื่อสังคมออนไลน์ การบรรยายทางวิชาการ และการรายงานห้องเรียน การศึกษาและกิจกรรมที่จัดโดยมหาวิทยาลัย ชุมชน และสังคม นับว่าเป็นช่องทางในการให้ความรู้อารยธรรมทางนิเวศวิทยาที่ค่อนข้างมีประสิทธิภาพ อีกทั้งผู้วิจัยยังเสนอเนื้อหาและกลยุทธ์ที่มีประสิทธิภาพในการให้การศึกษาอารยธรรมนิเวศวิทยาในยุคใหม่ สิ่งทำที่สุดคือการสร้างกลไก นวัตกรรมทำให้การศึกษาอารยธรรมนิเวศวิทยาของมหาวิทยาลัยชิงเต่าเหิงซิงที่มีรูปแบบของการแบ่งปันที่สมดุลและเปิดกว้างสำหรับครอบครั้ว มหาวิทยาลัย และสังคม

คำสำคัญ: อารยธรรมนิเวศวิทยา; เนื้อหาการศึกษา; กลยุทธ์ที่มีประสิทธิภาพ; กลไกนวัตกรรม

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Chapter 1

Introduction

Rationale

In the 20th century, the occurrence of the "eight world disasters" in Western countries resulted in significant losses and shocked the global community. This sparked a deep introspection on the interconnection between humans and nature. In today's society, ecological problems are gradually emerging, which are not only environmental problems, but also affected by political, economic, cultural and other factors. How to resolve the ecological crisis lies in how to treat nature correctly and how to coexist harmoniously with ecology. How to carry out ecological civilization education plays an extremely important guiding role.

In the face of increasingly limited resources, alarming environmental pollution, and the degradation of ecosystems, it is imperative that we embrace the principles of ecological civilization. This involves respecting, adhering to, and safeguarding nature while pursuing the path of sustainable development. By doing so, we elevate the concept of sustainable development to the level of green development, ensuring that we leave behind abundant ecological assets rather than regrets for the well-being of future generations. The construction of ecological civilization holds significant significance in the context of socialism with Chinese characteristics. It is intricately linked to the welfare of the people, the future trajectory of the nation, the achievement of the "two centenaries" goals, and the realization of the Chinese dream of the great rejuvenation of the Chinese nation. The construction of ecological civilization has received significant attention and support from the Party Central Committee and the State Council. They have issued a series of crucial decisions and arrangements aimed at promoting ecological civilization, leading to remarkable progress and positive outcomes. The 18th National Congress of the Communist Party of China emphasizes the need to establish an ecological civilization that respects, responds to, and protects the nature. The construction of ecological civilization should be highlighted and integrated across all dimensions of

economic, political, cultural, and social development, striving to create a beautiful China and realize the sustainable development for the Chinese nation. After the 18th National Congress of the Communist Party of China, there has been continuous enrichment and improvement in our party's ideology concerning the construction of ecological civilization. In the overall layout of "five in one" which is known as the "five-sphere integrated plan" which aims to foster harmonious progress in the areas of economy, politics, culture, society, and ecology, the construction of ecological civilization is one of them. In the fundamental strategy of upholding and developing socialism with Chinese characteristics in the new era, the principle of promoting harmonious coexistence between humanity and nature is among the core strategies. Within the framework of the new development concept, "green" represents a significant and fundamental concept. And in the three major development concepts encompassing economy, society, and environment, ecological civilization construction is one of the major ideas. Pollution control stands as one of the most critical battles in this endeavor. General Secretary Xi Jinping has urged all regions and departments to diligently implement these measures, aiming to propel China's ecological civilization construction to new heights. This puts forward new and higher requirements for ecological civilization education in the current new era. The cultivation of future builders and successors with ecological civilization values and practical abilities can only be achieved by seamlessly integrating ecological civilization education throughout the entire educational process.

The relationship between humanity and nature can be viewed from two distinct perspectives: Firstly, there is the practical theory or humanistic approach, where humans are the subjects in the society, and nature is perceived as the object of human's activity and consumption. In the relationship between human and nature, nature as the object of human's activity is only valuable when it enters the field of human production practice and transforms into raw materials for production. The value here reflects the "resource value" and "economic value" of nature. The consequence of the relationship are mainly manifested in the following two aspects. On the one hand, humans obtain the means of living and satisfy their consumption needs and desires for material enjoyment through the utilization of nature. On the

other hand, natural resources are completely destroyed and transformed in the process of human production and consumption, losing the existence in origin. Secondly, humans and nature have an "existential" relationship. In this perspective, humans are considered as common "being" in the entire natural ecosystem, and humans, like other natural species, must rely on the overall natural system for their survival. The stable balance of the entire natural ecosystem is crucial for the existence of all natural entities, including human beings. Therefore, natural objects and the natural ecosystem as a whole possess "environmental value" in ensuring the well-being and survival of humanity.

Ecological values serve as the theoretical foundation for the development of ecological civilization. "Ecological values" mainly includes the following three meanings. First, any individual creature on the earth, in the competition for survival, not only realizes its own survival interests, but also creates conditions for the survival of other species and individuals. From this perspective, every species and individual creature holds a significant role in ensuring the survival of others. Secondly, the presence of any species and its individuals on the earth contributes to the stability and balance of the entire ecosystem, representing another form of ecological value. Thirdly, the stability and the balance of the overall natural system possessing "environmental value" crucial for human survival are essential for the existence of human beings. First of all, ecological value is a kind of "natural value", that is, the systemic "function" that natural objects have among themselves and to the natural system as a whole. This natural system function can be seen as a "broad" value, which is the "environmental value" for human survival. Furthermore, ecological value stands apart from the conventional notions of "resource value" or "economic value" associated with natural objects. Instead, it represents the intrinsic "environmental value" that the natural ecosystem holds for humanity. People are also living beings and have to live in nature. Human life requires natural conditions that are suitable for human life: a living earth, clean water, air composed of different gases in a certain ratio, a proper temperature, a certain number of necessary plant and animal partners, a moderate amount of ultraviolet radiation, the suitable temperature, and so on. The natural system, comprising various natural elements, forms the

environment in which human beings inhabit. This environment serves as an indispensable condition for human survival, acting as the "home" and "living base" for humanity. Therefore, the significance of "ecological value" for humans is denoted as "environmental value."

The construction of ecological civilization serves as the fundamental blueprint for the sustainable development in China. Xi Jinping's ideology on ecological civilization embodies the passionate feelings of the people's livelihood. It has formed a theoretical system of systems science, answering the major theoretical issues such as the historical rule, fundamental motive force, development path, objectives and tasks of the construction of ecological civilization. How to deal with the relationship between human production and natural environment has reached a new height, reflecting the historical responsibility for ecological problems. Xi Jinping's ecological civilization ideology is informed by the Marxist worldview and methodology, and carries the unique genes and distinctive national characteristics of Chinese civilization. Marx postulated that "human beings live in harmony with nature". Humans engage in production, life, and development through interactions with nature. When humans treat nature kindly, nature reciprocates with blessings. However, Marx also noted that "If man conquers the forces of nature through science and creative ingenuity, the forces of nature will retaliate against man." "Let us not excessively celebrate our triumphs over nature as human beings. With each triumph, nature responds with consequences." These are the famous words of Engels. Chinese civilization has been inherited for more than 5,000 years and has accumulated a wealth of ecological wisdom. The philosophical ideas of "the unity of heaven and man" and "the way of nature", the classic verses of "Advise you not to beat the birds in the third spring, as the children are in the nest looking for their mother's return", and "A congee a meal, when thinking about where it comes from is not easy; half a thread, half a wisp, always think about the hardships of things", these simple and wise view of nature, still give people a profound warning and enlightenment. The Party Central Committee, under the leadership of Comrade Xi Jinping as its core, adheres to the integration of the fundamental principles of Marxism with China's specific realities and the rich heritage of Chinese traditional culture. They summarizes

the lessons learned from the development and changes of ecological environment in the past and present, and based on the practice of ecological civilization construction in the new era, profoundly answers a series of major theoretical and practical questions. They profoundly clarified the relationship of human and nature and proposed the basic strategy of adhering to the harmonious coexistence of man and nature. They profoundly clarify the relationship of development and protection, and put forward the scientific concept that green water and green mountains are golden mountains. They profoundly clarified the relationship of the environment and people's livelihood, and put forward the major claim that a healthy ecological environment is the most universally beneficial welfare for people's well-being. They profoundly clarified the relationship between all elements of natural ecology and put forward the systematic idea that mountains, water, forests, fields, lakes, grasses and sands are a community of life. Xi Jinping's ideology on ecological civilization builds upon and advances the Marxist concepts concerning the relationship between humanity and nature, realizes a new leap in understanding the principles governing the construction of socialist ecological civilization, presents a novel depiction of the modernization pathway towards harmonious coexistence between humanity and nature, and scientifically guides the construction of beautiful China in the new era to break new ground. General Secretary Xi Jinping highlighted: "Ecological civilization represents a significant milestone in human social advancement. Humanity has undergone primitive civilization, agricultural civilization, and industrial civilization. Ecological civilization emerges as a product of industrial civilization reaching a particular stage of development, and it reflects a new imperative for achieving harmonious coexistence between humanity and nature."

The famous Italian industrialist, Aurelio Pesci, one of the founders and presidents of the Club of Rome, stated in his book "The Quality of Mankind" that "the contemporary global crisis, in which everything in the human system is out of actual balance with everything else, is a direct consequence of the failure of mankind to raise the level of awareness and responsibility."

Ecological civilization education is essentially human quality education. It is an important mission for education to serve the great rejuvenation of the Chinese

nation to integrate ecological civilization education into the whole process of education. To seamlessly integrate ecological civilization education throughout the entire educational process, school education serves as the primary channel, with teachers playing a pivotal role. Educators must be educated first, so as to better serve as the guidance and guide for the healthy growth of students. Chen Baosheng, the original minister of education, said that the integration of ecological civilization education content has been strengthened in the aspects of curriculum, social practice and campus activities. In the existing national education system, although ecological civilization education is also an important content, from the strategic height of strengthening ecological civilization construction in the new era, ecological civilization education needs continuous innovation in both content and form. By doing so, we can enhance our ability to adapt to a future of high-quality development, focusing on ecological priority and green development. Relevant experts pointed out that due to the limitation of growth environment and experience, the existing teachers have certain deficiencies in both knowledge structure and thinking mode, and the current teaching staff engaged in ecological civilization education is relatively weak; moreover, environmental problems have unprecedented complexity and wide area, and ecological civilization education needs the joint participation of many disciplines, and the concept of ecological civilization should be integrated into various types curriculum and teaching materials. These opinions remind us that the education of ecological civilization in the new era has indeed put higher demands on educators, which is a short board that we need to make up for. More importantly, ecological civilization education holds significant prominence within the moral education curriculum of colleges and universities, which plays an important role in improving the comprehensive quality of the university students.

Research Question

1. What are the current situation and the problems of ecological civilization education in Qingdao Hengxing University?
2. What are the contents and strategies of ecological civilization education in Qingdao Hengxing University?
3. What is the innovative mechanism of ecological civilization education in Qingdao Hengxing University?

Objective

Based on a survey of in Qingdao Hengxing University, this paper analyzes the cognition of the current ecological civilization education by different personnel of different grades, gender, majors, and so on, the main objectives of the study are as follows.

1. To analysis the current situation and the problems of ecological civilization education in Qingdao Hengxing University.
2. To formulate the contents and strategies of ecological civilization education in Qingdao Hengxing University.
3. To find out the innovative mechanism of ecological civilization education in Qingdao Hengxing University.

Research Hypothesis/Hypotheses

A total of four research hypotheses will be tested in this study.

Hypothesis 1: Basic information variables such as the university students' grade, gender and major have different impacts on ecological civilization education.

Hypothesis 2: The awareness of ecological civilization of students and teachers has an important influence on the ecological civilization education.

Hypothesis 3: The setting of university curriculum system has a significant influence on the ecological civilization education of the university students.

Hypothesis 4: The academic activities, practical exercise, family environment and community atmosphere have a significant impact on the ecological civilization education of the university students.

Scope of the Research

Population and the Sample Group

Population

There are 785 full-time teachers and 40 undergraduate majors, covering 9 disciplines such as engineering, management and art, with 18,400 students in Qingdao Hengxing University. The total number of teachers and students is 19,185.

The Sample Group

The sample group people including teachers and students from Hengxing University in Qingdao. Using random sampling method, 1595 students and 12 teachers are selected as a sample group for analysis.

The Variable

Independent Variable

The basic information of students' grade, gender and major.

The awareness of ecological civilization of the educators and the educated.

The setting of university curriculum system.

The activities in the university, family and community.

Dependent Variable

The current situation and the problems of ecological civilization education.

The content and strategies of ecological civilization education.

The innovative mechanism of ecological civilization education.

Content (s)

A questionnaire was designed and carried out in Qingdao Hengxing University. The survey targets are teachers and students in Qingdao Hengxing University. There are 785 full-time teachers and 40 undergraduate majors, covering 9 disciplines such as engineering, management and art, with 18,400 students. The total number of teachers and students is 19,185. The sample group people including teachers and students from Hengxing University in Qingdao. Using random sampling method, 1595 students and 12 teachers are selected as a sample group for analysis.

The investigation includes whether there are public basic courses, public elective courses and professional elective courses related to ecological civilization in the university, and whether the courses related to ecological civilization are included in the personnel training program, whether the school or the university has conducted lectures or academic reports on ecological civilization education and the frequency of such activities, whether the school or the university has organized time activities on ecological civilization education and the frequency of such activities, whether they actively pay attention to information about ecological progress and ecological civilization and through what kind of way to pay attention to and understand the relevant information of ecological civilization, whether they think it is necessary for colleges and universities to offer courses related to ecological civilization education, the effective ways, suggestions and focal points of ecological civilization education for the university students. Through the above investigation, to understand the ecological civilization education in Qingdao Hengxing University. According to the survey data, the current situation and existing problems of ecological civilization education for the university students are analyzed in detail. Based on the current situation of education in Chinese universities and interviews with teachers, the main contents and strategies of ecological civilization education for the university students in the new era are put forward. Using the theory of ecosystem to explore the innovative mechanism of university ecological civilization education.

Advantages

This paper is devoted to enhance the ecological civilization consciousness and responsibility of university students, to practice the green and low-carbon lifestyle in their daily life and study, and actively participate in the great cause of harmonious development of human and nature. The advantages are as follows.

1. Strengthen ecological civilization education, improve ecological civilization awareness, develop ecological civilization behavior, these can help the university students establish correct ecological civilization values, and promote their all-round development.

2. Colleges and universities carry out ecological civilization education to help students deal with the relationship between man and nature, effectively improve the ability and quality of the university students to participate in ecological civilization construction, and cultivate new people of The Times who adapt to social development and actively participate in social construction.

3. Carrying out ecological civilization education and practice for the university students is conducive to popularizing universal education of ecological civilization. Promote the university students to act as disseminators and practitioners, and use their own actions to drive the whole society to form an atmosphere of advocating ecological civilization.

4. Strengthening the theoretical and practical research of ecological civilization education in colleges and universities can give full play to the advantages of various disciplines, adhere to the problem orientation, and promote the scientific research achievements of colleges and universities to become a strong support for the construction of social ecological civilization in the new era.

Definition of Terms

Ecological civilization represents a novel phase in the progress of human civilization. Ecological civilization represents a distinct and novel form of civilization, distinct from primitive civilization, agricultural civilization, and industrial civilization. It is a civilization path that contemporary people seek and choose to eliminate ecological crisis, change the environment and seek sustainable development. Ecological civilization is the sum of the material and spiritual achievements made by mankind in accordance with the objective laws of the harmonious development of man, nature and society. It takes the cultural ethical form of man and nature, man and man, man and society, virtuous cycle, all-round development and continuous prosperity. The connotation of ecological civilization is very rich, revealing that the essence of ecological civilization is the harmony between man and nature, and the goal is to achieve sustainable development. Specifically, it should be understood from the following perspectives: First, at the level of material production, ecological civilization advocates that people respect the laws of the ecosystem in their

production activities and develop productivity in harmony with the ecosystem, not stopping development on the pretext of ecological protection, so the development of circular economy is a breakthrough to realize ecological civilization. Secondly, at the level of mechanism and system, ecological civilization requires the coordinated development of natural ecosystem and social ecosystem, the adjustment and reconstruction of mechanism and system, the construction of ecological politics, the development of green economy, and the development of green technology. Third, at the level of ideology, ecological civilization advocates ecological civilization values, ethics, moral norms and codes of conduct, with the aim of laying a solid foundation for ecological civilization by realizing the transformation of human concepts.

Ecological civilization education is based on ecological knowledge and guides the educated to understand the nature of nature, human needs, and the relationship between human and nature without neglecting the normal needs of human, and to develop a consciousness of caring for the environment and protecting the ecology, and eventually to form civilized behavioral habits. The education of ecological civilization is a new type of civilization education, which is reflected in the subtle influence of scholars around the world on educated people based on the laws of human ecological civilization development and environmental protection regulations. After learning about ecological civilization, educated people can correctly handle the balance between human development and nature, and spontaneously form the behavior of respecting, revering, and protecting the nature in practical life. Ecological civilization education absorbs the achievements of environmental education and sustainable development education, and elevates education to the level of changing the entire civilizational approach, and it is an educational activity for the whole society to develop toward an ecological civilized society. The prerequisite for the construction of ecological civilization is for the general public to form an ideological awareness of ecological civilization and to spontaneously fulfill the responsibility and mission of ecological protection. Since the beginning of human civilization, education has been a driving force for civilization. In the process of ecological civilization, education also bears the heavy

responsibility of advocating and spreading ecological civilization and plays a huge function. Through education, we promote the transformation of people's scientific outlook and values, so that people not only recognize the importance of environmental issues, but also think about human attitudes toward the environment and the impact of their own behavior on the environment, know what they should and should not do, learn to use technology scientifically and formulate various policies to be more clear about the direction of human development, and make the application of science and technology in order to adapt the sustainable development. With the harmony between human and nature as the starting point and the outlook on scientific development as the guiding ideology, the goal of ecological civilization education is to cultivate ecological civilization awareness among all citizens, enable educated people to understand correctly and handle properly the relationship between human beings, nature and productivity, and form healthy production, living and consumption behaviors, as well as cultivate a group of professionals with comprehensive decision-making ability, leadership and management ability, and mastery of various advanced science and technology for sustainable development. Education for ecological civilization is a lifelong education for all people. Not only does the formation of ecological civilization awareness for all people require a process, but the formation of healthy production, living and consumption patterns also requires a process. Meanwhile, ecological civilization education is a systematic project that requires the support and cooperation of all parties. This requires the government to deploy ecological civilization education systematically and carefully at a strategic level, and to use the existing environmental education system to implement ecological civilization education comprehensively, while the main body of education should explore more and more effective education methods and open up more and broader education channels to actively promote ecological civilization education and make it a strong force in the construction of ecological civilization.

Research Framework

Previous studies showed that the ecological civilization education has some relationship to the basic information (Wang Jiaxun, 2016; Li Xia, 2015; Fan Meng, 2017) of the university students such as their grade, major and gender. The ecological civilization awareness (Duan Yanfeng, 2018), university curriculum (Li Xia, 2015; Yang Mengfei, 2022; Duan Yanfeng, 2018), and activities conducted by universities, family and society (Du Changjian, 2014; Duan Yanfeng, 2018; Yang Mengfei, 2022) affected the ecological civilization behavior of the university students.

The research framework of this study is shown in Figure 1.1

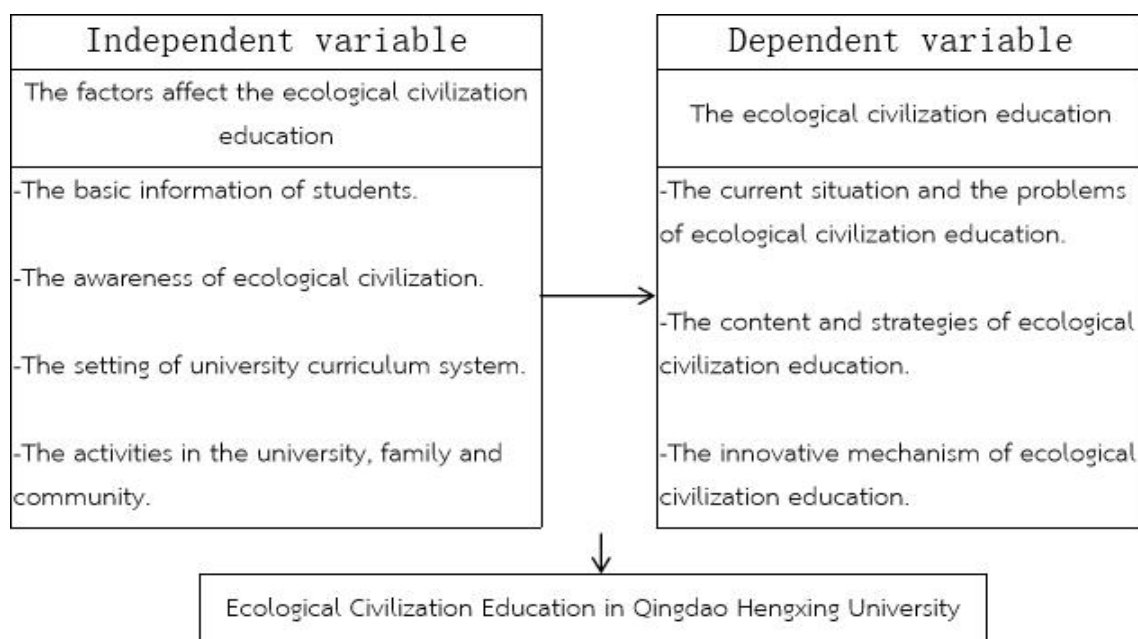


Figure 1.1 Research Framework

Chapter 2

Literature Review

Through the literature research, many scholars and researchers have carried on the related research to the university student ecology civilization education. In these studies, most scholars and researchers have analyzed the significance of ecological civilization education in colleges and universities. And some scholars have carried out empirical research on the education of ecological civilization for the university students, the scope of the survey has been carried out in the whole country or in a certain province or city. And a few scholars have explored the innovative mechanism of the education of ecological civilization for the university students. Many scholars and researchers put forward their own views on the countermeasures of ecological civilization education for the university students. However, for a certain area, from theoretical research to empirical investigation, there are few systematic studies on the status quo, existing problems, innovative mechanisms and effective ways to implement ecological civilization education of the university students. Especially in the ecological civilization education of the university students, they have less absorbed the relevant viewpoints and enlightenment from the pre-qin natural ecological literature.

1. The Concept of Ecological Civilization
2. The Concept of Ecological Civilization Education
3. The Innovative Mechanism of Ecological Civilization Education
4. Related Research

The details are as follows.

The Concept of Ecological Civilization

Li Xia. (2015). Talked about that the concept of ecological civilization has not been clearly proposed in the academic circles outside of China, but the environmental protection awareness has been promoted by the environmental pollution that is increasingly serious. After the Second Industrial Revolution, the rapid

economic development of the world was accompanied by environmental pollution and further deterioration. In 1948, the International Conference of Conservation of nature and natural resources was held in Paris, France, which contributed to the establishment of a series of environmental protection agencies and the development of environmental protection activities. In 1949, the United Nations convened the Scientific Conference on the Conservation and Use of Resources. In 1949, the British government promoted "a philosophy of action based on ecology" and established the Nature Conservancy to put environmental protection into action. In 1958, the British Nature Conservancy was established to raise people's conservation awareness and to call on them to respect nature, conserve and use resources rationally in order to avoid the natural resources over-consumption and serious pollution of the global environment. Since then, people's knowing of environmental protection has gradually deepened, and environmental protection has been discussed and studied at a deeper theoretical level.

Cao Chengqing. (2016). mentioned in 1962, the book "Silent Spring" written by Rachel Carson, an American marine biologist, attracted worldwide attention, describing a world without birds, bees and butterflies. By analyzing the harm of pesticides on plants and animals as well as the food chain, the book points out that the human activities impact on the external environment is the root of environmental problems, especially with the continuous advancement of industrialization, the living environment of human beings is also getting worse and worse. This book is the first theoretical work on environmental issues, which has aroused people's concern for wildlife and environmental awareness worldwide, as well as triggered public concern for environmental issues and profound reflection on their own behavior, and has played a great role in promoting the global environmental protection movement, making humans gradually begin to realize the necessary to pay more attention to the environmental education. In 1969, Nixon, then president of the United States, submitted a bill to Congress, demanding that the idea of the harmony between human and nature be translated into practical action. The Club of Rome, which founded in April 1968, was the first non-governmental environmental organization, an international association of more than

30 scientists and educators from the United States, England, France, Italy, and other countries, whose purpose was to raise public global awareness through the systematic study of global issues such as population, food, industrialization, pollution, resources, poverty, and education, and to urge international organizations.

Chen Siting etc. (2017). mentioned in 1972, the Club of Rome published a study on world development trends, "The Limits to Growth," stating, "The model of economic growth brought about by the industrial revolution has come with the destruction of resources and the environment. Mankind is bent on making demands on nature, leading to an imbalance in natural systems, a shortage of resources and serious environmental pollution, and the traditional path of industrialization is essentially leading mankind down a path of extinction that is not sustainable." It predicted that economic growth could not be sustained indefinitely due to the finite supply of natural resources, such as oil, and warned of an imminent global catastrophe. As a response, it proposed a countermeasure plan for "zero growth," sparking a profound international debate. The Limits to Growth was the best-selling publication on environmental issues at the time, attracting great public attention, selling 30 million copies and being translated into more than 30 languages. Since then, there has been a speed growth in the study of ecological ethics in the West. From June 5 to 16, 1972, the "Conference on the Human Environment" was held by the United Nations in Stockholm, Sweden, which firstly representatives of governments around the world sat together to discuss environmental issues. The conference adopted the "Declaration on the Human Environment" and put forward the slogan "There is only one Earth". This conference was the first milestone in the progress of environmental protection, which sounded the alarm for mankind and awakened the people and heads of governments all over the world to the need to act quickly and take concerted action worldwide to protect the earth on which mankind depends, starting a new era of environmental protection movement with governmental actions. Since then, June 5 has been designated as the International Environment Day, becoming a routine reminder of the importance of safeguarding and enhancing the human environment.

Wang Hongbin. (2009). mentioned that in 1980, the United Nations Environment Programme, together with the World Wide Fund for Nature and the International Union for Conservation of Nature and Natural Resources, released the World Outline for Nature Conservation, which emphasized the importance of conserving resources sustainability and explored the interdependence between environmental protection and economic development. In 1992, the United Nations Conference on Environment and Development (UNCED) was held in Rio de Janeiro, Brazil, and adopted the Agenda for Action in the 21st Century, an important document that for the first time introduced the concept of sustainable development, i.e. development refers to a developmental approach that fulfills the present needs while safeguarding the ability of future generations to meet their own needs, without having an impact on the satisfaction of future generations. The idea of sustainable development marked a new historical process in the study of ecological civilization, and environmental education entered the stage of sustainable development education, with "sustainable" becoming the key word for the advancement of ecological civilization.

The Generation and Connotation of Ecological Civilization.

Xu Chun. (2011). mentioned that the concept of "ecological civilization" first appeared in the article "The Way to Cultivate Individual Ecological Civilization in Mature Socialist Conditions" published in the former Soviet Union in 1984. The article holds that the cultivation of ecological civilization is extremely important in the whole communist education system and should be fully paid attention to.

Du Changjian. (2014). mentioned that in 1995, the American scholar Roy Morrison published "Ecological Democracy", in which he officially adopted the word "ecological civilization", believing that "ecological civilization" belongs to a new form of civilization after "industrial civilization".

Liu Rensheng. (2006). mentioned that James O'Connor proposed the dual contradictions and dual crises of capitalist society in his book "Reasons of Nature and Ecological Marxism". He summarized the contradiction between the capitalist productive forces and the relations of production as the first kind of contradiction,

and the contradiction between the infinity of capitalist production and the finite of capitalist production conditions into the second kind of contradiction. The first contradictions and the second contradictions interact and exist together in the global capitalist system, forming the double crisis of capitalism that are economic crisis and ecological crisis.

Chen Xiaohui. (2013). pointed out that the birth and growth of the educational thought of ecological civilization in China has experienced the whole process from the traditional educational thought of ecological civilization to the modern educational thought of ecological civilization.

Huo Gong. (2019). mentioned that the traditional ecological civilization education thought and its enlightenment. The Chinese nation is one has the splendid culture and the long history nationality, in China more than 5000 years Chinese civilization history, has the rich traditional ecological culture accumulation. In addition to some laws and regulations on ecological protection in Chinese legal and political codes, there are also abundant ecological ethics thoughts in the Confucian culture-centered Chinese civilization system.

Su Lihong et al. (2008). pointed out that ecological civilization concept is the embodiment of the moral relationship between human and nature, should put this relationship into the category of moral, human as the spirit of all things must give full play to its subjective initiative, consciously maintain the balance of natural ecosystem and social ecological system and stability, assume the moral responsibility of the natural environment and other creatures. The natural environment is the source of food and clothing for the people, the safety guarantee of life and health, is also the natural condition for production development and economic take-off, and is the fundamental interest of the public. Good ecological moral quality and good concept of ecological civilization are an important symbol to measure the degree of civilization of a country and a nation, and also an important yard stick to measure the quality of citizens in modern society.

Yu Mouchang. (2010). pointed out that in terms of the view of nature, people are a part of nature, and we must respect and protect nature, and we must obey the laws of nature. In terms of values, nature has its own intrinsic value, and it is a great

prejudice to equate the value with the value to human beings. In terms of economic view, resources are biological resources, and reducing pollution give spriority to economic growth. In terms of technology, we can not relyon science and technology, we must seek other ways to solve environmental problems; technology should be the servant rather than amaster, not must have the technology that hurts us. In terms of social view, the lifestyle of mode rate consumption and recycling should be adopted; the growth of the world population up to the present level threatens the ecological balance. In terms of political view, the only way to solve environmental problems is the overall change of social, economic and political system. We must escape the industrial way of life; there should be strong laws to protect the environment.

The Construction Significance of Ecological Civilization.

Yan Geng. (2010). mentioned that many scholars have analyzed the significance of the ecological civilization construction from the height of social development and human survival. They believe that in the process of building a harmonious society, the construction of ecological civilization is an indispensable link. Moreover, promoting ecological civilization is also an inevitable choice for China to move towards sustainable development.

Chen Shoupeng. (2008). pointed out that the construction of ecological civilization is an inevitable choice to cope with the severe ecological situation in China, which is conducive to promoting the modernization of China and even the development of the world.

Liu Jing. (2011). put forward from the perspective of people's life quality and the relationship between resources and environment that the construction of ecological civilization is a social system project to change people's understanding of their own way of life, aiming to improve people's quality of life, so as to prevent environmental pollution, and make reasonable use of resources while realizing the recycling of resources.

Zhou Shengxian. (2012). analyzed the purpose of the ecological civilization implementation from the perspective of theoretical height and policy orientation. In

his opinion, the harmonious development of ecological civilization indicates the direction of progress, and the overall layout of enriching and improving socialism with Chinese characteristics is the expansion and innovation of sustainable development; the construction of ecological civilization is the great contribution of the progress of human civilization.

In short, the academic circles and environmental protection departments study the significance of ecological civilization construction with both historical investigation and practical analysis, both theoretical grasp and practical interpretation, and the correct guidance of national policy.

The Way to Build an Ecological Civilization.

Qu Geping. (2010). believes that the prerequisite for the construction of ecological civilization is to grasp the relationship between man and nature in essence, form correct ideas, and look at problems in a scientific and comprehensive way. He pointed out the path of ecological civilization construction: first, to strengthen the ecological culture publicity and education system; second, to implement the rule of ecological protection; third, to establish the ecological economic incentive system, to vigorously develop the circular economy, low-carbon economy, and to advocate clean production.

Zhang Min. (2008). studied the construction mode of ecological civilization from three aspects: first, make all citizens form the concept of ecological civilization, and discussed from three aspects: improving the awareness of ecological civilization of social members, setting up new concepts of ecological civilization and the thinking mode of advocating ecological civilization. The second is to establish a new paradigm of economic development of ecological civilization, mainly from the two aspects of establishing ecological production mode and the promotion of healthy lifestyle. Third, the institutional guarantee and technical support for the construction of ecological civilization. In terms of institutional guarantee, we should continue to deepen the green GDP national economic accounting system, actively promote the planning environmental assessment system, and accelerate the policy construction of ecological environment protection; in terms of technical support.

Zhou Shengxian. (2012). put forward specific measures for further promoting the construction of ecological civilization from the macro-policy level. He believed that we can proceed from the following aspects: first, to seek dynamic balance between development and protection; second, to combine environmental protection and social and economic development, to realize the organic integration of the space, industrial and other structures; third, to find out the environmental problems that hinder scientific development and destroy ecology, and actively propose solutions; fourth, to establish a sound ecological civilization system; fifth, to coordinate the international and domestic overall situations.

The above scholars and government department leaders have both an overall macro grasp of the way of ecological civilization construction and specific countermeasures. Theoretically, the development of ecological civilization construction, first, we should abandon the old values and form a new concept of ecological civilization construction. From the practical level, the construction of ecological civilization should conduct ecological civilization education, change the way of life, develop low-carbon economy and circular economy, transform the economic development mode, improve the ecological civilization system and perfect relevant laws, and strengthen international exchanges and cooperation.

Xi Jinping's Ecological Civilization Research.

Yang Junling. (2017). pointed out that in the party's 19 report, xi jinping is fully affirmed the great achievements of China's ecological civilization construction, and from the industrial structure adjustment, the transformation of production and life style, system improvement and ecological management international cooperation expounds the new era of China's ecological civilization development direction and implementation path.

Fu Fang. (2016). believes that since the 18th CPC National Congress, Xi Jinping has started from the strategic layout of "five-in-one" and the realization of the long-term development of the Chinese nation, deeply elaborated the thought of ecological civilization, and defined the direction and strategy of China's ecological civilization construction in the new era.

Liu Li. (2017). believes that from the relationship dimension, harmony between man and nature is the logical starting point of Xi Jinping's ecological civilization thought; improving the well-being is the value goal of Xi Jinping thought; from the perspective of development dimension, coordinated and sustainable development is the internal essence of Xi Jinping's ecological civilization thought; from the practical dimension, institutional guarantee and ecological red line are important measures of Xi Jinping's ecological civilization thought.

Li Peiwen and Wang Jian. (2015). pointed out that in the construction of the ideological system of ecological civilization, Xi Jinping inherited and developed the thought of Marx and Engels on the harmonious development of man and nature, and comprehensively absorbed the essence of the scientific outlook on development.

Wang Lei and Xiao Anbao. (2015). believe that in the construction of ecological civilization thought, Xi Jinping inherited and carried forward the traditional Chinese ecological culture, drew on the Marxist ecological thought, and reflected on the practice of economic and social development in China and the West.

Xia Aijun and Yang Song. (2017). believe that the classical Marxist writers 'discourse on ecological issues, the ecological wisdom in traditional Chinese culture and the ecological protection concept of the previous central leadership of the CPC are the theoretical basis for the birth of Xi Jinping's ecological civilization thought.

Yun-fei zhang, li. (2016). pointed out that since the eighteenth congress, xi jinping put forward the "ecological xing civilization, ecological decline, civilization", "ShanShuiLinTian lake is a life community", "green water castle peak is the jinshan yinshan", "environmental governance is a system engineering" and "good ecological environment is the most fair public products, the most pratt & whitney the well-being of the people's livelihood" and a series of new concept of ecological governance.

Zhang Jinjun. (2017). believes that Xi Jinping's thought on ecological civilization reflects the characteristics of The Times, such as the strong ecological care complex, the profound ecological feelings for the people, the distinct style of the Chinese nation, and the artistic conception of truth, goodness and beauty.

Zhang Zhanbin and Qi Kewei. (2017). believes that efforts should be made to practice Xi Jinping's thought on ecological civilization, constantly strengthen the government's responsibility for environmental protection, and give full play to the decisive role of the market in resource allocation, so as to promote the construction of ecological civilization in the new era.

Zhang Guo. (2017). pointed out that when implementing Xi Jinping's thought on ecological civilization, relevant publicity and education activities should be continued, the government should take effective measures to solve the main problems in ecological civilization construction, ordinary people should vigorously practice Xi Jinping's thought on ecological civilization construction, and give full play to the important role of the news media.

The above content is discussed from the theoretical sources, main contents, characteristics and implementation measures of Xi Jinping's ecological civilization thought, reflecting the important significance and value of learning and implementing Xi Jinping's ecological civilization thought in the new era.

To sum up, in terms of theoretical research, some ideas of ecological civilization have been consciously or unconsciously penetrated in the research on consumption patterns and environmental ethics. Therefore, when we conduct research on ecological civilization concept education, we should consult the western ecological theories wholesale. Under the guidance of Xi Jinping's thought on ecological civilization, on the basis of our own education system and the actual situation of domestic the university students, the ecological civilization education of in Chinese students in universities should fully absorb and learn from foreign educational experiences that are beneficial to the development of ecological civilization education of the university students.

The Concept of Ecological Civilization Education

The Value of Ecological Civilization Education for the University Students

Most scholars put forward their own opinions from the perspective of the university students themselves and social development.

Li Wei. (2019). believes that ecological civilization education in university is conducive to promoting the harmonious coexistence between man and nature and promoting the comprehensive and healthy development of the university students.

Zhao Yongming. (2015). believes that the education of ecological civilization concept is conducive to building a beautiful China, responding to ecological problems and improving moral education.

Xiong Yukun. (2015). believes that enhancing the education of ecological civilization is the requirement of the development of the times and plays an important role in promoting the construction of a beautiful China and the comprehensive development of the university students.

Cai Meiping. (2013). believes that ecological civilization education is conducive to promoting the comprehensive development of the university students and building a harmonious society. It is also a positive response to the construction of national ecological civilization.

Duan Yanfeng. (2018). pointed out in the article on the value implication and strategy of ecological civilization education for the university students in the new era that the new era has given more rich connotations to ecological civilization construction, and the ecological civilization publicity and education for the university students is of great significance. It is the requirement of the times to further strengthen the publicity and education of the university students' ecological civilization. First, it can promote the construction of a beautiful China, second, it can expand the ideological and political education of colleges and universities, and third, it can improve the ecological civilization quality of the university students.

The Present Situation of Ecological Civilization Education for the University Students

As for the study on the current situation of ecological civilization education in university, it is generally believed that there are the following problems:

First, the school does not pay much attention to ecological civilization education.

Li Xia. (2014). believes that the importance attached by schools to ecological civilization education will influence the formation and development of university students' concept of ecological civilization directly.

Chen Yan. (2013). believes that the ecological civilization education only focuses on the publicity of environmental protection laws and regulations and knowledge, and does not carry out systematic ecological civilization education.

Yu Qiang. (2013). pointed out that at present, the ecological environment education based on Environmental Science in colleges and universities, compared with the education of other disciplines, has not yet mentioned its due status. Many colleges and universities have not included the improvement of the environmental science quality of the university students in their training objectives. Some colleges and universities even mistook the education based on the teaching of simple environmental protection knowledge as the development of the ecological civilization education in university.

Zhang Boqiang. (2013). also pointed out that the ecological civilization education in university has not been paid attention to in the education system of universities, and has not formed a relatively complete ecological civilization education system, and even lags far behind other education systems. The school lacks the education curriculum of ecological civilization system, and students cannot get the necessary theoretical guidance.

Second, the level of teachers needs to be improved.

Guo Shiping and Tian baoshuai. (2014). believe that the teachers related to ecological civilization are relatively weak. Few teachers have received systematic ecological civilization education. Their own knowledge structure is not complete, and they also lack certain ecological awareness and concepts. Some teachers only teach ecological civilization theory according to the book, only pay attention to the teaching of book knowledge, and neglect the cultivation of ecological civilization awareness of the university students.

Yu Qiang. (2013). believes that the ecological civilization education is an interdisciplinary subject that emerges from the convergence of fundamental disciplines like agriculture, forestry, chemistry, economics, and pedagogy. It

necessitates close collaboration among various disciplines to effectively guide and impart ecological civilization education to the university students. However, most colleges and universities do not pay attention to it at present. Many colleges and universities only mention it in the ideological education class, and few universities offer special ecological civilization education courses. Moreover, the number of teachers teaching ecological civilization knowledge is not large, most of them have not received systematic ecological civilization education, and lack of comprehensive education experience with both humanities and Social Sciences and natural sciences.

Third, the university students have insufficient understanding of ecological civilization.

Liu Fang. (2014). believes that current university students lack understanding of ecological knowledge, responsibility, moral cultivation, consumption concept and learning planning.

The Dilemma of Ecological Civilization Education for the University Students

Yang Mengfei. (2022). analyzed the dilemma of ecological civilization education in universities and proposed a breakthrough path for ecological civilization education in universities. She pointed out that in the promotion of ecological civilization education, we are faced with such practical difficulties as inadequate emphasis on ecological civilization education, incomplete education system and lack of linkage mechanism, which hinder the progress of ecological civilization education. Many universities do not offer courses related to ecological civilization education, and rarely integrate ecological civilization education into the teaching of relevant courses. The lagging progress of teaching content and curriculum system and the lack of innovation in teaching methods are the key factors hindering the development of ecological civilization education, and cannot meet the overall strategic requirements of national ecological civilization construction. The construction of ecological civilization education system in universities is seriously out of line with the requirements of ecological civilization construction.

First of all, based on the construction of the ecological civilization curriculum system in universities, most colleges and universities do not take it as a public compulsory course. The class time is short and the radiation range is very limited. It is difficult to form a good education for all the university students.

Secondly, the specialization level of the content system of ecological civilization education in universities is relatively low, and the content setting is relatively simple. Moreover, many colleges and universities directly copy the textbooks of other universities, and there is a serious homogenization phenomenon. They do not set up the ecological civilization education material system scientifically and reasonably in combination with their own characteristics and specialties.

Finally, in terms of the education talent system, the number of teachers majoring in ecological civilization education in universities is small at present. Most of the teachers are from the humanities and Social Sciences and cultural quality education. The teachers have less knowledge of ecological civilization, and the level of teaching specialization is insufficient. It is difficult to form an ideal effect of ecological civilization education.

At present, there is a lack of linkage mechanism for ecological civilization education in colleges and universities. First, there is a lack of synergy mechanism between traditional education methods and information-based teaching models. In the process of carrying out the education on ecological civilization, universities have failed to adapt to the development of the times, promote the informatization and networking development of education, and failed to achieve deep-seated exchange and interaction and resource sharing. The ecological civilization education in universities does not combine social education and family education, and the linkage mechanism among the three parties has not been established, which leads to poor convergence of ecological civilization education, which is not benefit to the dissemination of ecological civilization knowledge and participation in social practice with students.

Contents of Ecological Civilization Education for the University Students

The academic circles generally believe that the education on ecological civilization should include the education of knowledge, emotion, behavior, consumption concept and aesthetics.

Cheng Yongjun. (2019). believes that in the ecological civilization education for the university students, systematic ecological civilization knowledge is the foundation, and good ecological civilization behavior is the pursuit.

Luo Chunyang. (2018). believes that the ecological civilization education in the university includes the ecological perspective encompassing on nature, values, ethics, and the rule of law.

Liu Zhenqing and Liu Xiaowen. (2014). believe that the concept of ecological civilization education in university includes ecological concept education, legalization education, ecological practice education and consumption concept education.

Chen Xiaohui. (2013). believes that the concept of ecological civilization includes: the concept of ecological nature, the concept of consumption, the concept of aesthetics and the concept of development.

Chen Yan. (2013). believes that the basic contents of ecological civilization education in universities include ecological civilization consciousness, ecological civilization concept, ecological morality, and ecological legal education.

Yan benfeng and Song Xihui. (2010). believe that the ecological civilization education concept includes the education of ecological moral consciousness, the education of ecological moral norms and the education of ecological moral quality.

Meng Qiuming and Li Hao. (2010). believe that the ecological civilization education content include ecological economy, culture, legal system, ethics, philosophy and ecological consumption.

Duan Yanfeng. (2018). elaborated the main contents of ecological civilization education for university students in the article "value implication and strategy of ecological civilization education for the university students in the new era". From the cognitive level, it is to let the university students master the ecological civilization knowledge. From the perspective of value, we should guide the university students

to establish the values of ecological civilization; From the behavioral level, we should guide students to consciously practice ecological civilization in their life.

Strategies of Ecological Civilization Education for the University Students

As for the research on the ways of the university students' ecological civilization education, most scholars mainly focus on improving the university students' ecological literacy. Educators, i.e. teachers, are required to learn ecological professional knowledge, improve the quality of ecological civilization and put forward countermeasures on improving the ecological social environment.

Jiang Jiang. (2019). presented a novel approach to innovating the ecological civilization education mechanism in universities using new media. By introducing innovations in the management, incentive, participation, and evaluation mechanisms of ecological civilization education in higher education institutions, the overall quality of ecological civilization education in China's universities can be significantly enhanced.

Zhang Hongxia and Shao Nana. (2018). put forward solutions from four aspects of classroom teaching, setting up practice models, creating ecological environment and cultivating ecological behavior to promote the living of ecological civilization education.

Liu Yamin. (2017). proposed specific measures from three aspects: education system, innovative practice forms, and creating an ecological campus cultural atmosphere.

Sun Xiaoyan and Li Aihua. (2016). provided enlightenment for China's ecological civilization concept education by studying Marx's ecological thought. Innovate the theory and discourse system of ecological civilization concept education, and guide the people to establish the internal ecological civilization concept. Establish a green education system based on the main position of the school. Deepen the reform of relevant systems, and build the education system of ecological civilization; Integrate into modern production and life practice to guarantee the normalization of ecological civilization education.

Li Xia. (2016). believes that to carry out ecological civilization education, schools should attach importance to and deepen theoretical and practical education. Parents should also teach by example. The society should do a good job in propaganda. Moreover we should give full play to the educational role of network media.

Duan Yanfeng. (2018). pointed out in his article on the value implication and strategy of ecological civilization education in university in the new era that ecological civilization education is a complex and systematic ideological and political education activity, and also a difficult practical activity. We should combine the requirements of the establishment of ecological civilization in the modern era, explore the ways to realize the ecological civilization education of the university students in various aspects, and improve the ecological civilization education in university. Clarify the objectives of ecological civilization education, enrich the carriers of ecological civilization education, innovate the mode of ecological civilization education, improve the guarantee mechanism of Ecological Civilization Education (including teacher guarantee, teaching guarantee, curriculum system, green life and future evaluation), and build a "Trinity" ecological civilization education environment.

Pei Yanli. (2018). pointed out that the curriculum design of ecological civilization concept education in university should focus and specifically respond to the educational objectives of cultivating the university students' ecological civilization consciousness and shaping their ecological literacy, and make specific arrangements for the content of the curriculum to fully reflect the application of educational objectives and educational contents in the curriculum design. Since ecological civilization education in university is an interdisciplinary course, the design of the course should take into account how to effectively combine the characteristics of each subject and reasonably infiltrate the content of ecological civilization into other subjects, so as to improve the ecological civilization literacy of the university students in a purposeful and planned manner and to construct a complete content system of the course. Therefore, the design of the ecological civilization education course content should not only focus on the goal of ecological civilization education, but also follow the principles of openness, diversity, student subjectivity and social demand in the course design, and reasonably optimize the course content, not only

to penetrate the knowledge points of ecological civilization into the public basic theory course and general education course, but also to reflect the idea of transforming zero into whole in the course design of specialized courses, so as to form a systematic and orderly course design plan in the course design. we should reflect the idea of turning the zero into the whole and form a systematic and orderly course design plan, so as to highlight the ecological cultural connotation of the ecological civilization education course.

Yang Mengfei. (2022). put forward four paths to break through the ecological civilization education in universities in the article "analysis of the dilemma and path of ecological civilization education in universities". One is to establish the concept of ecological civilization education, the other is to innovate the methods of ecological civilization education, the third is to link the ecological civilization education with the society, and the fourth is to build the team of ecological civilization teachers.

To sum up, the domestic research on the ecological civilization education in university has made certain achievements, and put forward effective methods for the ecological civilization education in university. However, some detailed studies are not deep enough. In terms of approaches, they focus more on the education of students' personal ecological civilization and neglect the role that educators and educational environment should play. Therefore, the research on ecological civilization education in university needs to be more in-depth, so as to achieve the goal of ecological civilization education in university. Since the 19th National Congress of the Communist Party of China, that is, some new ideas on the concept of ecological civilization in the new era have not yet formed a certain research system, leaving a research space for this paper. As young university students in the modern era, they should study the new ideas and concepts of the country seriously and actively. Therefore, under the background of the new era, it is necessary to study the ecological civilization education in university. In addition, the academic circles lack the application of new media and new technologies in the way of ecological civilization education in university, which also leaves some space for the research of this paper.

The Innovative Mechanism of Ecological Civilization Education

There is not much study on the innovative mechanism of ecological civilization education in the existing research literature. Some scholars explain the mechanism of the content and path of ecological civilization education. From the aspect of educational space or educational subject, the innovation mechanism of ecological civilization education should include three aspects: family education, school education and social education.

Du Changjian. (2014). specifically discussed the three ways of the carry out the ecological civilization education, such as family ecological civilization education, school ecological civilization education and social ecological civilization education, and then gave some specific methods for carrying out of ecological civilization education.

Yang Mengfei. (2022). proposed the main ways of social interaction of ecological civilization education in the analysis of the dilemma and path of ecological civilization education in universities are as follows: Family education plays a catalytic role in the implementation of ecological civilization education in university, and has a very important influence on students. It can cultivate healthy lifestyles of the university students through household garbage classification and green consumption, and play a consolidating role in the effect of ecological civilization education in universities. Social education is an effective way for students to apply the theory of ecological civilization to practice. Through visiting characteristic villages and towns, participating in community services, and participating in urban ecological cultural activities, students can put the theoretical knowledge they have learned into practice in all kinds of practical activities, and exercise and cultivate students' awareness of ecological civilization, and sense of responsibility in practice.

The ecological civilization education in universities is not only a vital component of Ideological and political education, but also a key link to realize the construction of socialist ecological culture. We should fully mobilize the enthusiasm of families and society to participate in the construction of the linkage mechanism of ecological civilization education. Under the multi-party collaborative education, it is a

very urgent problem for China to form a correct public opinion guidance of ecological civilization, form a joint force of ecological civilization education for the university students by virtue of the edification of campus culture and the perception of social ecological situations, give full play to the resource advantages of social families and universities, correctly influence the ecological civilization consciousness of the university students, and make them understand that environmental protection and improvement are very urgent issues facing China, We must practice the thought of ecological civilization in our own practical actions, carry out environmental protection work, and become the promoter and practitioner of the construction of ecological civilization with Chinese characteristics in new era.

Related Research

Among the various documents and materials collected, they are related to the ecological civilization education in university, the main topics include ecological civilization, ideological and political education, beautiful China, environmental moral education, ecological civilization thought of Xi Jinping, ecological moral education of university students, ecological civilization consciousness education, ecological civilization construction and so on. The secondary topics include ecological ethics, values education, ecological behavior, cultural values, network ecosystem, ideological education courses.

Du Changjian. (2014). finished his dissertation named “A Study on Ecological Civilization Education of China”. The paper focuses on the basic contents of ecological civilization education, including ecological knowledge education, ecological status education, ecological consumption education, ecological moral education, ecological legal education, ecological economic education and ecological political education. In addition, the contents of ecological civilization education include ecological civilization skill education, ecological civilization aesthetic education, ecological culture education and ecological philosophy education. He pointed out that ecological civilization education should be incorporated into the national education system. From compulsory education in primary and secondary schools to higher education in the universities, public courses on ecological

civilization education are required to popularize ecological civilization knowledge and guide students to establish correct ecological values. In addition, relevant courses should also be set up in vocational education and adult education, and ecological civilization education should be incorporated into the teaching and assessment plan as an important content. To implement ecological civilization education in the whole society, whether it is family ecological civilization education, school ecological civilization education or social ecological civilization education, in the final analysis, it is to improve the ecological civilization quality of individual citizens, so that they can gradually establish the concept of ecological civilization, and finally consciously develop green, environmental protection and ecological civilization habits in production and life. So the development of ecological civilization education must be based on the actual conditions of individual citizens such as their age, occupation and education level, and according to their acceptance level and practical needs, formulate educational objectives, select educational contents and methods. Finally, realize the natural docking of formal and informal ecological civilization education for individual citizens. Formal education is what we usually call school education. Non formal education corresponding to formal education refers to the process in which individuals acquire knowledge, ideas, skills, information and moral cultivation from sources such as families, neighbors, libraries, mass media, work and entertainment places in addition to the conscious education of social members by formal education institutions in our daily life. It is also called "informal" education. From the perspective of the growth and development of individual citizens, the time to receive formal education in schools is limited after all, and school education is not omnipotent. In many aspects, it needs to be naturally connected with self-education, family education and social education, so that the effect of formal education can be consolidated and continued.

Li Xia. (2015). thought in her dissertation named "Research on the Ecological Civilization Education of the Contemporary College Students" that the students' ecological civilization education should be guided by the scientific outlook on development, adhere to the principle of integrity, participation and morality education. The implementation contents mainly from ecological consciousness

education, ecological ethics education, ecological consumption education, ecological aesthetic education, ecological safety education, legal education and ecological interpersonal relationship education etc in all-round way. Finally, from strengthening the government oriented, carrying out measures of the universities, utilizing the social forces, creating the family conditions and intensifying the self-management discussed for the feasible ways of ecological civilization education. She pointed out the ecological civilization education of the university students urgently needs to cultivate the healthy consumption consciousness of the university students, guide them to practice the ecological civilization consumption behavior, and correct the unhealthy consumption concept. First, educate the university students to choose the concept of consuming green products. Green products are not only beneficial to the environment, promote the harmony between man and nature, but also beneficial to physical and mental health; Secondly, educate the university students to live a simple life, advocate a lifestyle based on knowledge and wisdom, and oppose the lifestyle of luxury, ostentation and comparison consumption; Thirdly, the university students should be educated to correctly handle the wastes in life. In order to facilitate recycling and reuse, the wastes should be classified and put into use as much as possible; Finally, educate the university students to choose to save life. In daily life, pay attention to water saving, electricity saving, paper saving, less use of disposable products, and reduction of solid wastes. She pointed out that in the ecological civilization education, teachers are a very important factor. The university should strengthen the professional training of on-the-job teachers and build a professional team of teachers for ecological civilization education. The university should also pay attention to the development of the curriculum system of ecological civilization education in university, and reasonably set up courses by combining with ideological education theory courses, properly adding public courses of ecological civilization education, reasonably arranging elective courses of ecological civilization education, and properly integrating the contents of professional courses and ecological civilization education.

Wang Jiaxun. (2016). used the "5W" model in communication theory to study the new media path of eco-civilization in his dissertation named "New Media Path of

Eco-civilization Education". This study mainly uses semi-structured interviews and questionnaires to obtain data. In terms of the ecological civilization quality of netizens, it shows that there is little difference in the ecological civilization quality among netizens of different genders.

Fan Meng. (2017). tried to construct a practical ecological civilization education system in universities in her dissertation named "College Students' Ecological Education Under the View of Ideological and Political Education". In the third chapter of the dissertation, she tried to understand the university students' recognition and practice of ecological ethics and ecological behaviors required by the construction of socialist ecological civilization and their knowledge of ecological general knowledge and related laws through scales, questionnaires and interview surveys. The main problems in ecological civilization education of the university students are summarized through regression analysis and interview communication, and the causes of the problems are speculated. Addressing the problems found in the research and combining advanced thoughts and successful practices on ecological civilization education in China and abroad, the author construct an ecological civilization education system suitable for China's national conditions and the development needs of contemporary the university students under the vision of ideological education. The system is constructed from four aspects: principles of ecological civilization education, education forms, education contents, and education evaluation system.

Duan Yanfeng. (2018). put forward that the main contents of ecological civilization education in universities include cognitive level, value level and behavior level. From the cognitive level, it is to let the university students master the knowledge of ecological civilization; from the value level, it should guide students to establish ecological civilization values; from the behavioral level, it should guide students to practice ecological civilization consciously. She pointed out that ecological civilization education for the university students is not limited to schools, but also includes family education and social education. It is essential to build a "trinity" of ecological civilization education environment including schools, families and society to form a joint educational force. It is essential to broaden the field of

ecological civilization education, integrate ecological civilization education into various activities that the university students participate in, into daily education, and penetrate into all fields of the university students' growth. Only in this way, can we form the joint force of ecological civilization education, enhance the actual effect, make students establish consciously the socialist ecological civilization concept, and promote the all-round development university students.

Yang Mengfei. (2022). pointed out that the effect of ecological civilization education in universities is highly related to the ideological education. At the same time, it is highly related to social education and family education. In the current era, we should comprehensively promote the construction of the social linkage mechanism of ecological civilization education from multiple dimensions, so that the university students can realize the value identification and responsibility internalization in the process of family and social education. Family education plays a catalyst role in the implementation of ecological civilization education, and has a very important subtle influence on students. We can cultivate a healthy lifestyle for the university students through household garbage classification, green consumption and other behaviors, witch playing a consolidating role for the effect of ecological civilization education in the universities. Social education is an effective way for students to apply the ecological civilization theory to practice. By visiting characteristic villages and towns to participate in community services and participate in urban ecological and cultural activities, students can put their theoretical knowledge into practice in abundance of practical activities, and exercise and cultivate students' awareness of ecological civilization and responsibility in practice. Ecological civilization education should fully mobilize the enthusiasm of family and society to participate, and jointly build the linkage mechanism of ecological civilization education. Under the multi-party collaborative education, form the correct ecological civilization public opinion guidance, and with the help of campus culture edification and social ecological situation perception, form the joint force of ecological civilization education for the university students. We should give full play to the resource advantages of social families and the universities, and correctly influence the ecological civilization consciousness of the students. This can make the

university students realize that environmental protection and improvement is a very urgent problem facing our country. The university students must practice the concept of ecological civilization in their own practical actions, carry out environmental protection work physically, and become the promoters and practitioners of the socialist ecological civilization construction with Chinese characteristics under the background of the new era.

The results of the above literature survey show that most of the scholars and researchers used questionnaire survey and interview to obtain the basic data for the research of ecological civilization education of the university students, and then collated the data on this basis, by using the statistical function in Excel and the analytical method in the Statistical Package for Social Science(SPSS), the data are further classified and analyzed in order to understand the current situation of ecological civilization education in university and find out the current problems. Individual scholars and researchers have applied case study and investigation study in their dissertations.

This research will draw lessons from the research method of experts and scholars, taking Qingdao Hengxing university as an example, to investigate the situation of the students' ecological civilization education, system analysis and the existing problems of ecological civilization education, understand the ecological construction and ecological civilization construction theory in China and abroad, further put forward the content of ecological civilization education and effective strategy in the new era, applied ecosystem theory, explore the innovative mechanism of university students' ecological civilization education. The research results can be applied to the practice of ecological civilization education in other universities in China.

Chapter 3

Research Methodology

The research purpose is to study ecological civilization education in Qingdao Hengxing University. It includes the following three aspects: 1. To analysis the current situation and the problems of ecological civilization education in Qingdao Hengxing University. 2. To formulate the contents and strategies of ecological civilization education in Qingdao Hengxing University. 3. To fine out the innovative mechanism of ecological civilization education in Qingdao Hengxing University. In order to achieve the above objectives, the researcher needs to know the current degree of awareness and the actual situation of ecological civilization among students and teachers in Qingdao Hengxing university, the researchers have the following procedures:

1. The population / the sample Group
2. Research Instruments
3. Data Collection
4. Data Analysis

The population / Sample Group

The Population

There are 785 full-time teachers and 40 undergraduate majors, covering 9 disciplines such as engineering, management and art, with 18,400 students in Qingdao Hengxing University. The total number of teachers and students is 19,185.

The Sample Group

The sample group people including teachers and students from Hengxing University in Qingdao. Using random sampling method, 1595 students and 12 teachers are selected as a sample group for analysis.

Research Instruments

Aiming to achieve a diverse means of data collection and analysis, a mixed method containing both quantitative research methods and qualitative research methods are adopted in this research. In this study, the quantitative data and qualitative data provide meaningful basis for answering the research questions, which can provide a in depth understanding of the study.

Quantitative research, also referred to as empirical research, serves as a fundamental research paradigm within the realm of social science, constituting a crucial step and methodology in scientific investigations. Quantification involves the use of numerical symbols for measurement. Quantitative research, as a scientific approach, aims to define specific attributes of objects or phenomena. It is a methodological process that represents problems and occurrences in numerical terms, followed by analysis, testing, and explanation to derive meaningful insights. Quantitative research involves measuring the attributes of an object by comparing them against a specific standard or identifying patterns of change in quantity among various factors. The primary methods employed in quantitative research design include investigation, correlation, and experimental methods. The investigation method is an ancient research approach where a comprehensive or exhaustive collection of materials related to a specific aspect of the research object is undertaken to achieve the research objective. Through analysis and synthesis of the collected data, a conclusive result is obtained. The correlation method, on the other hand, involves exploring the relationship between variables using the correlation coefficient. The primary objective of correlation studies is to ascertain the degree and direction of the relationship between the variables. The degree of the variable relationship can be described as complete correlation, high correlation, moderate correlation, low correlation, or zero correlation, while the direction of the variable relationship can be classified as positive correlation or negative correlation. Experimental method means manipulating one or more variables and controlling the study environment, and controls the research environment to measure the causal relationship between the independent variables and the dependent variables. In this study, questionnaires were mainly used to collect feedback from students and

teachers on problems related to ecological civilization education and make a systematic quantitative analysis of the research content.

Qualitative research represents a fundamental research paradigm in the realm of social science. It serves as an essential step and methodology in scientific investigations. Qualitative research involves acquiring information through exploring questions, understanding events, analyzing human behavior and opinions, and providing answers to inquiries. By analyzing the disordered information, the specific characteristics or behaviors of the research object are explored, and the causes are further explored. This information encompasses diverse types of data, including historical records, meeting transcripts and recordings, notes, feedback forms, photos, and videos. Qualitative research involves studying a small group of meticulously chosen individuals, where the researcher's experience, sensitivity, and relevant technology enable effective insights into the behavior and motivations of the subjects, as well as the potential impact they may have. The main forms of qualitative research include group seminars and one-to-one in-depth interviews. In this study, 12 teachers were selected to conduct semi-structured interviews and obtain information on the content and strategies of ecological civilization education through communication and communication.

The specific research tools and their tests are described as follows.

Questionnaire survey: A questionnaire was designed and carried out in Qingdao Hengxing University. The survey targets are teachers and students in Qingdao Hengxing University. There are 785 full-time teachers and 40 undergraduate majors, covering 9 disciplines such as engineering, management and art, with 18,400 students. The total number of teachers and students is 19,185. The sample group people including teachers and students from Hengxing University in Qingdao. Using probability random sampling method, 1595 students are selected as a sample group for analysis. The investigation includes whether there are public basic courses, public elective courses and professional elective courses related to ecological civilization in the university, and whether the courses related to ecological civilization are included in the personnel training program, whether the school or the university has conducted lectures or academic reports on ecological civilization education and the

frequency of such activities, whether the school or the university has organized time activities on ecological civilization education and the frequency of such activities, whether they take the initiative and through what kind of way to pay attention to and understand the relevant information of ecological civilization, whether they think it is necessary for universities to offer courses related to ecological civilization education, the effective ways, suggestions and focal points of ecological civilization education. Through the above investigation, to understand the ecological civilization education in Qingdao Hengxing University.

Interview: Using semi-structured interview, the researcher consulted 12 teachers in science and technology, economic management, literature and history and foreign language, and obtained relevant information according to the content and effective strategies of ecological civilization education for university students in the new era. The questions of the interview included 8 questions about the ecological civilization education in Qingdao Hengxing University.

Literature research: Systematic study of the literature review involves collecting and organizing pertinent literature within the field of study. Through a comprehensive and objective analysis by the researcher, a systematic and comprehensive understanding of the field of study in question is developed, and a literature review is completed to state personal opinions, explain the study, and form the results of the study.

Statistical analysis: Based on the ecological civilization education questionnaire survey of Hengxing University in Qingdao, the researcher use statistical methods and knowledge related to the object of analysis to study the situation of ecological civilization education from a combination of quantitative and qualitative aspects. And through analysis, we achieve a deeper understanding on the ecological civilization education in Qingdao Hengxing University. The final product is a statistical analysis report on ecological civilization education after deep processing of the statistical data.

Model building: According to the research results, combined with the social needs of the current students' ecological civilization education, and applying the ecosystem theory, the researcher established the mechanism model of ecological

civilization education of family, university and social co-education. The aim is to establish an ecological civilization education mechanism of extensive consultation, joint contribution and sharing among families, universities and communities, so that they can better coordinate and jointly do a good job in the ecological civilization theory and practice education of the university students.

To ensure that all questions in the questionnaire align with the research objectives and definitions of terms, the researcher invited three experts to evaluate the questionnaire. The evaluation used the indexes of Item-Objective Congruence (the abbreviation is IOC) built by Rovinelli and Hambleton (1977), a program used in test development to evaluate the content effectiveness of the project development phase. The explanation for the criteria used in the Index of Congruence (IOC) is as follows:

- +1 = Congruent
- 0 = Questionable
- 1 = Incongruent

Three experts were invited to evaluate all items of the questionnaire. The project rating according to the above standard, the score is a maximum 1 for all experts agree to good items. This ensure that the collected questionnaire response is reliable and consistent with the goal. This process improves the quality of the questionnaire and is conducive to obtaining a more objective comprehensive evaluation from the questionnaire.

Data Collection

Data collection mainly includes the following aspects:

1. Some related research documents were been downloaded through database on the www.cnki.net and internet.
2. Design the questionnaire content, and invite experts to evaluate the questionnaire. According to the expert feedback, revise and improve the questionnaire.

3. Questionnaires are distributed to the students on the questionnaire star platform. Data information obtained from the collected questionnaires and data analysis finished by using the SPSS statistical software.

4. Twelve teachers from science and technology, economics and management, literature and history, and foreign languages were invited to carry out semi-structured interviews on the content and effective strategies of ecological civilization education in the university in the new era, and obtained relevant information.

Data Analysis

1. Quantitative Data Analysis of Questionnaire Survey

The web-based questionnaire survey method was used in this study. Through random sampling survey, the survey of ecological civilization education among the university students of Qingdao Hengxing University was conducted. In the process of the investigation, the questionnaire star platform is mainly used to produce and issue questionnaires. The survey subjects are mainly freshmen, sophomore, junior students and senior students of Qingdao Hengxing University, covering all disciplines in the university. These students are divided into six categories: science and engineering, economics and management, science, literature, history, philosophy and law, agriculture and forestry, medicine and other majors. Before the quantitative analysis of the survey data, the researchers screened and analyzed the survey data to test the correctness and integrity of the data. After the data are ready, the data obtained from the survey are sorted out and the data files are established. Detailed analysis of the obtained data was performed according to the index system constructed in this study. Using the statistical function in Excel and the analytical method in SPSS 22, the data are further classified and statistical analyzed, in order to find out the influencing factors and degree of influence on ecological civilization education. The basic information data of students participating in the questionnaire were counted with descriptive statistics. According to the identity of the students category namely grade, professional category and gender three main aspects, respectively analysis of the university students 'cognition of

ecological civilization, the university students' identity of ecological civilization, school education of ecological civilization and family and community ecological civilization education atmosphere, and the university students in daily life and study of the difference of the practice of ecological civilization, to understand and analyze the current situation and problems of ecological civilization education among the students in Qingdao Hengxing University.

2. Qualitative Data Analysis of the Interviews

The semi-structured interview method was applied in the study. By consulting 12 teachers in science and technology, economics, literature and history and foreign language, the researcher obtained the relevant information according to the content and effective strategies of ecological civilization education for the university students in the new era. Detailed analysis and summary description were performed for each interview question. On the basis of the analysis of the collected pre-Qin natural ecology literature and related research data, combined with the important discussion of President Xi Jinping on ecological civilization, the main contents and strategies of ecological civilization education of Qingdao Xingxing University of Science and Technology are put forward.

According to the above analysis and research results, combined with the social needs of ecological civilization education in the new era, the researcher applied the ecosystem theory to establish a model of ecological civilization education mechanism of family, school and social education. The researcher used the model to analyze the mechanism of ecological civilization education, elaborated the collaborative education relationship of family, university and community through extensive consultation, joint construction and sharing. The analysis results make the three aspects better coordinated to do a good job in ecological civilization theory and practice education.

Chapter 4

Results of Analysis

This research is to study ecological civilization education in Qingdao Hengxing University. Based on the literature investigation, questionnaire survey and interview, the researchers studied the current situation of ecological civilization education among the university students in Qingdao Hengxing University, found out the problems of ecological civilization education for the university students, and then clarified the specific contents of ecological civilization education for the university students in the new era, proposed strategies for ecological civilization education for the university students, and explore the effective mechanism of ecological civilization education for the university students. Through the problem orientation, the analysis results respond to the three major research objectives of this paper, mainly including the following four aspects.

Section 1: The personal information of the students in the questionnaire survey

Section 2: The current situation and the problems of ecological civilization education in Qingdao Hengxing University.

Section 3: The contents and strategies of ecological civilization education in Qingdao Hengxing University.

Section 4: The innovative mechanism of ecological civilization education in Qingdao Hengxing University.

Section 1: The Personal Information of the Students in the Questionnaire Survey

The basic personal information content of the questionnaire in this study includes three main aspects of the student's identity category, i. e., grade, professional category and gender. Basic personal information of the students participating in the survey is shown in Table 4.1.

Table 4.1 Statistics on the Basic Personal Information of the University Students Participating in the Questionnaire Survey

Type	Personal Information	Number	Percentage
Grade	Freshman	655	41.07%
	Sophomore	319	20.00%
	Junior student	481	30.16%
	Senior student	140	8.78%
	Total	1595	1
Gender	Male	367	23.01%
	Female	1228	76.99%
	Total	1595	1
Major	Science and Engineering	136	8.53%
	Economics and Management	44	2.76%
	Philosophy, Law, Literature, History	539	33.79%
	Agriculture and Forestry	38	2.38%
	Medicine	317	19.87%
	Other	521	32.66%
	Total	1595	1

It can be seen from the table 4.1, in the research of the students in Qingdao Hengxing university, the number of each grade distribution is not particularly balanced, freshman, sophomore, junior students, senior students involved in questionnaire survey in about 4:2:3:1. It may be related to the questionnaire time and students curriculum conflict. Sophomore students are relatively most full course. While most of the senior students practice on the post due to the internship and other reasons. These affect the students to participate in the questionnaire survey. However, it does not affect the applicability of the survey results. Boys and girls of the students were 23.01% and 76.99%, respectively. In the professional category, literature, history and philosophy accounted for the highest proportion, reaching 33.79%. Next, other types of education majors and foreign language majors together accounted for about 32.66%. Then, the proportion of medical majors accounted for 19.87%. The gender ratio is basically consistent with the actual school of the major ratio. The difference in the proportion of majors is also consistent with

the reality that the base of the number of students in different majors is quite different. It can be seen that the natural traces of random sampling are obvious, and there is no artificial intervention of sample selection. So the final survey results are more consistent with the reality.

Section 2: The Current Situation and the Problems of Ecological Civilization Education in Qingdao Hengxing University

First of all, from the students' cognition of the ecological civilization, students' sense of identity of the ecological civilization, ecological civilization education in universities and the education atmosphere both in family and community, the practice of the ecological civilization in students' daily life, the researcher analyzes in detail the current situation and the existing problems of the education about the ecological civilization in Qingdao Hengxing university.

Students' Cognition of Ecological Civilization in in Qingdao Hengxing University

The question on the topic of the university students' understanding of the meaning of the concept of ecological civilization in this research questionnaire is to explore the university students' perception of the concept of ecological civilization. Through the survey, the researcher aim to gain insights into the diverse perspectives among the university students regarding the meaning of ecological civilization. The survey results will help us understand the variations in the university students' awareness of ecological civilization and provide valuable insights into their perceptions and understanding of this important concept. By analyzing these differences, the researcher can gain a comprehensive understanding of the students' cognition of ecological civilization and identify areas where further education and awareness-raising efforts are needed in the university. The survey results of the cognition of ecological civilization among the students of different grades are shown in Table 4.2

Table 4.2 Survey Results of the Cognition of Ecological Civilization Among the Students of Different Grades

Grade	Very well understood	Better understanding	Half-understood	Only heard of it	Never heard of it	Total
Freshman	11.54%	19.40%	10.16%	0.61%	0.23%	41.94%
Sophomore	5.58%	9.01%	4.58%	0.23%	0%	19.4%
Junior student	7.94%	14.51%	7.26%	0.23%	0.23%	30.18%
Senior student	1.91%	4.43%	1.53%	0.38%	0.23%	8.48%
Total	26.97%	47.36%	23.53%	1.45%	0.69%	1%

It can be found from Table 4.2 that students of different grades in Qingdao Hengxing university have roughly the same cognition of ecological civilization, and basically have the same understanding about the meaning of ecological civilization. The investigation indicates that 26.97% of the university students are very aware of the meaning of ecological civilization. 47.36% of the university students have a better understanding of the meaning of ecological civilization. The total number accounted for 74.33% of the total number of the university students participating in the survey. In addition, 23.53% of the university students have a little knowledge of the meaning of ecological civilization. Only 1.45 percent of the university students have only heard of ecological civilization, and 0.69 percent have not heard of ecological civilization. It can be seen that the students in Qingdao Hengxing university have a good overall understanding of ecological civilization.

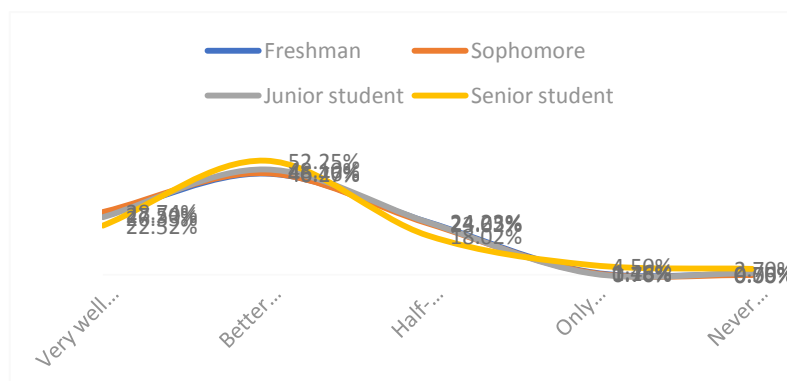


Figure 4.1 Survey Results of the Cognition of Ecological Civilization Among the Students of Different Grades

It is worth noting that the feedback in Figure 4.1 can show the subtle differences of students' cognition of ecological civilization in different grades. Among the students who know better the meaning of ecological civilization, there is a gradual upward trend from freshman to senior student year by year. The proportion of these the university students participating in the survey was 46.27%, 46.46%, 48.1% and 52.25% from freshman to senior student. Compared with the students of the other three grades, the cognition of ecological civilization of the senior student fluctuated greatly in different situations, and the proportion of the students who had only heard of ecological civilization and had not heard of ecological civilization was 7.2%.

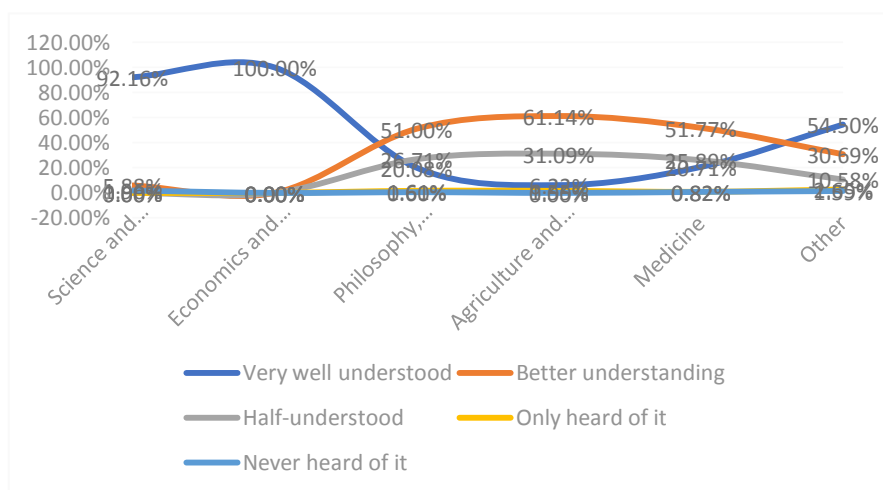


Figure 4.2 The Cognition Situation of Ecological Civilization Among the Students of different majors

The survey results of the cognition of ecological civilization among the university students of different majors are shown in Figure 4.2. Figure 4.2 shows that the university students of different majors have significant differences in their cognition of ecological civilization. The majors that the university students are very aware of the meaning of ecological civilization are economic management, science and technology, and other related majors such as education. The proportion of the students participating in the survey accounted for 100%, 92.16% and 54.5% of the total students participating in their respective majors, respectively. Next, students in medical majors and literature, history, philosophy and law majors participating in the survey accounted for 20.71% and 20.08% of the total number of students participating in the survey in their respective majors, respectively. Agriculture majors accounted for the lowest proportion of the total number of students participating in the survey in their respective majors. It can be seen that the university students of different majors are very aware of the meaning of ecological civilization, and the gap between majors is very large. However, there is no finding whether there is some direct and inevitable connection between this and the professional background attributes. The university students have a better understanding of the meaning of ecological civilization mainly in major categories such as agriculture, medicine, literature, history, philosophy and law. The proportion of the participating students was 61.14%, 514%, 51.77% and 51% of the total participating students in their respective majors, respectively. Next by other such as pedagogy majors, the students participating in the survey accounted for 30.69% of the total number of students participating in the survey in their respective majors. In addition, the proportion of agronomy students with a little knowledge of ecological civilization accounted for about one-third of the total number of students participating in the survey. Students of literature, history, philosophy and law and medical students who had a little knowledge of ecological civilization accounted for about a quarter of the total number of students participating in the survey. Educational students' knowledge of ecological civilization is a little more than one tenth of the total number of students participating in the survey. On the whole, students majoring in agriculture, literature, history, philosophy and law, and medicine are slightly weak in the cognition of

ecological civilization. There is also a slight shortage for the students in other majors such as pedagogy who have a little understanding of the meaning of ecological civilization. The proportion of his half-known and only heard of and unknown was 14.81% of the total number of students who participated in the survey.

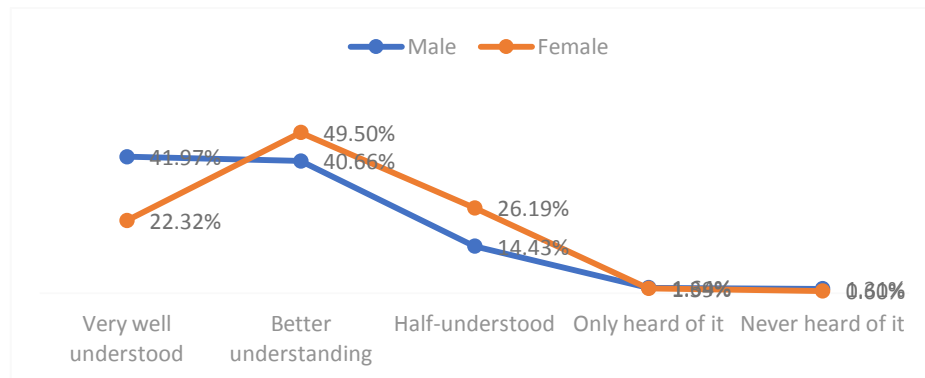


Figure 4.3 Survey Results of the Cognition of Ecological Civilization Among the Students of Different Gender

The survey results of the cognition of ecological civilization among the university students of different genders are shown in Figure 4.3. As can be seen from Figure 4.3, in terms of the cognition of different ecological civilizations, the proportion of male university students and female university students participating in the questionnaire survey in their respective genders is generally the same change trend. This indicates that there is little gender difference in the cognition of ecological civilization. We can see clearly from Figure 4.3, the proportion of male university students who are well aware of the meaning of ecological civilization in the total number of male university students participating in the survey is significantly higher than that of female university students, and the proportion of this part is about twice as different as that of female. The proportion of female university students better understanding the meaning of ecological civilization is 8.84 percentage points higher than that of male university students.

Students' Sense of Identity with Ecological Civilization in Qingdao Hengxing University

In order to deeply study the sense of identity of the university students to the ecological civilization, the researcher designed the questionnaire mainly based on the following four aspects. Such as the initiative of paying attention to ecological civilization, perception of the significance of environmental protection, the understanding of the relationship between themselves and the ecological civilization, and the scientific expression of the relationship between the human beings and the nature. By examining these dimensions, the researchers aim to gain a deeper understanding of how the university students relate to ecological civilization and how they perceive their role in environmental stewardship.

The survey results of the students' sense of identity with ecological civilization in Qingdao Hengxing University are shown in Table 4.3-4.6.

Table 4.3 Survey Results of the Initiative to Focus on Ecological Civilization Among the Students in Qingdao Hengxing University

Question	Answer	Number	Percentage
Do you take the initiative to pay attention to information about ecological civilization education?	A. Yes	1309	82.07%
	B. No	286	17.93%
Total		1595	1
Do you think it is necessary for colleges and universities to offer courses related to ecological civilization education.	A. Very necessary	1230	77.12%
	B. Can Open can not open	309	19.37%
	C. There's no need.	56	3.51%
Total		1595	1

Table 4.4 Survey Results of the Perception of the Significance of Environmental Protection Among the Students in Qingdao Hengxing University

Question	Answer	Number	Percentage
What do you think is the importance of protecting the ecological environment?	A. Not important	55	3.45%
	B. More important	294	18.43%
	C. Very important	1246	78.12%
Total		1595	1

Table 4.5 Survey Results of the Perception of the Understanding of the Relationship Between the Students Themselves and the Ecological Civilization

Question	Answer	Number	Percentage
What do you think is the relationship between ecological civilization and yourself?	A. Close relationship	1248	78.24%
	B. Some relationship	333	20.88%
	C. No relationship	14	0.88%
Total		1595	1

Table 4.6 Survey Results of the Perception of the Scientific Expression of the Relationship Between the Human Beings and the Nature

Question	Answer	Number	Percentage
Which expression do you think is more appropriate for the relationship between humans and nature?	A. Man can overcome nature	79	4.95%
	B. Humans can transform nature	81	5.08%
	C. Human behavior is governed by nature	117	7.34%
	D. Human survival depends on nature	156	9.78%
	E. Harmony between man and nature	1162	72.85%
Total		1595	1

From Table 4.3-4.6, we can see that the university students generally have a good sense of identity with ecological civilization, and about 80% of the university students participating in the survey show a very good level of recognition of ecological civilization. Among them, the active attention to ecological civilization education related information accounted for 82.07%, think university related courses in ecological civilization is very necessary 77.12%, think that protect the ecological environment is very important accounted for 78.12%, think ecological civilization and itself is very close 78.24% (plus that ecological civilization and their own some total 99.12%), think man and nature relationship between the most appropriate choice of harmonious coexistence between man and nature 72.85%.

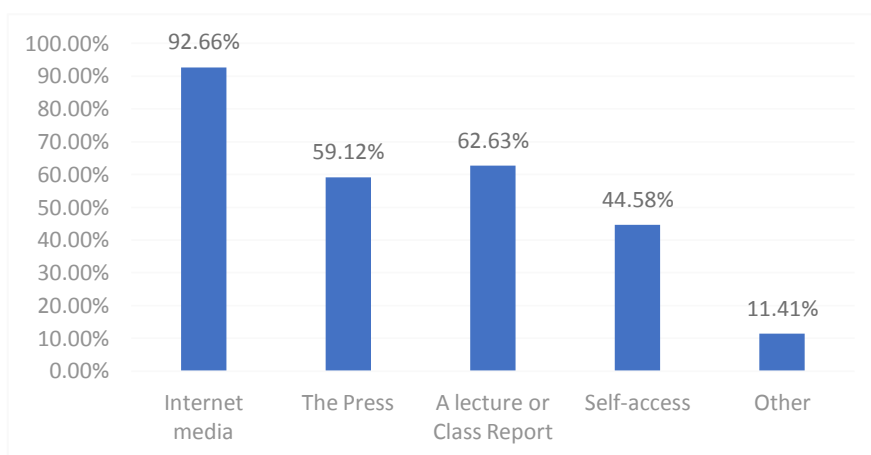


Figure 4.4 Survey Results of the way to Pay Attention to the Information About Ecological Civilization

As can be seen from Figure 4.4, in terms of the way to actively pay attention to and obtain ecological civilization related information, online media accounted for the highest proportion, reaching 92.66%, followed by academic lectures and classroom reports, with 62.63%, and newspapers and periodicals accounted for 59.12%. Therefore, in the process of strengthening the ecological civilization education, we should pay special attention to the network media resources, and provide as much high-quality ecological civilization education related information as possible on the network media. At the same time, it is necessary to strengthen the construction of classroom teaching, improve the teaching quality, increase the

content of ecological civilization education in the teaching activities, and improve the frequency of ecological civilization academic report activities. It is worth noting that 44.58% of the university students take the initiative to find relevant information and study. Therefore, in the time and space scope of students' activities, create the atmosphere of ecological civilization education as much as possible, so that students can be immersed in a strong atmosphere of ecological civilization education.

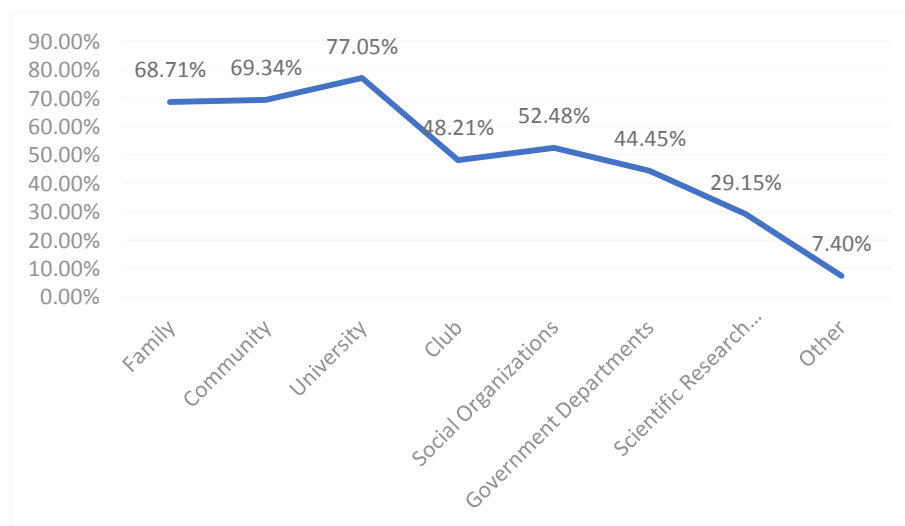


Figure 4.5 Survey results of the way to learn the knowledge and participate in the activities of ecological civilization

As can be seen from Figure 4.5, in the question "So far, what department or organization has conducted and promoted the ecological civilization knowledge and ecological civilization activities you have participated in?" In the answer, universities, communities, families, social organizations, schools, governments, research institutes and others, accounting for 77.05%, 69.34%, 68.71%, 52.48%, 48.21%, 44.45%, 29.15% and 7.4%, respectively. Thus, in the process of ecological civilization education, school teaching, community atmosphere, family education affects the students significantly, social organizations, school community and the government also played a positive role, scientific research institutes in the university students learning ecological civilization knowledge and participating in ecological civilization activities in the education function is relatively weak.

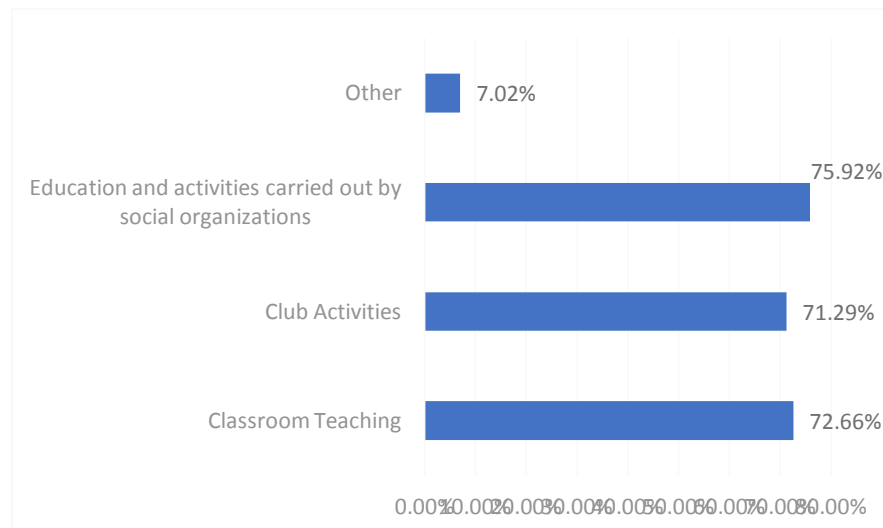


Figure 4.6 Survey results of the effective ways to carry out Ecological civilization education for the students

According to the survey results of the effective ways to carry out ecological civilization education for the university students (Figure 4.6), students believe that school classroom education, community activities, education and activities carried out by social organizations are relatively effective, and the proportion of the survey results is more than 70%.

The Ecological Civilization Education in the University and the Education Atmosphere in Family and Community

To comprehensively understand the impact of school education, family education, and community education on the students' ecological civilization theory education and practical action, the researcher designed some questions in the questionnaire surveys. These questions aims to assess various aspects of ecological civilization education in universities, including course design, academic activities, community organizations, practical experiences, and the atmosphere of ecological civilization education within families and communities. Questions about the availability and effectiveness of ecological civilization courses or modules offered in the university curriculum can help us understand students' perceptions of the relevance and significance of these courses in promoting ecological awareness and

sustainable practices. Students are asked about their participation in seminars, workshops, or lectures related to ecological civilization and environmental protection. Whether students are involved in the environmental clubs, green initiatives, or volunteer activities related to ecological civilization is very important. The survey results of the ecological civilization education in the university and the education atmosphere in family and community are shown in Table 4.7-10.

Table 4.7 Survey Results of the Ecological Civilization Education Curriculum Setting in Qingdao Hengxing University

Question	Answer	Number	Percentage
Are there any courses related to ecological civilization in the public basic courses of your university?	A. Yes	1022	64.08%
	B. No	573	35.92%
	Total	1595	1
Ecological civilization of the curriculum, whether included in the personnel training program in your college?	A. Yes	802	50.28%
	B. No.	564	35.36%
	C. I don't know.	229	14.36%
Total		1595	1
Do you have any public elective course on ecological civilization education in your university?	A. Yes	1186	74.36%
	B. No	409	25.64%
	Total	1595	1
Is there any elective course on ecological civilization in your college?	A. Yes	1069	67.02%
	B. No	526	32.98%
	Total	1595	1

Table 4.8 Survey Results of the Academic Activities of Ecological Civilization in Qingdao Hengxing University

Question	Answer	Number	Percentage
Are there any academic lectures or presentations on ecological civilization education?	A. No	500	31.35%
	B. Once or twice a year	699	43.82%
	C. Three to five times a year	214	13.42%
	D. 6 times or more per year	182	11.41%
Total		1595	1

Table 4.9 Survey Results of the Ecological Civilization Community Organizations and Practical Activities in Qingdao Hengxing University

Question	Answer	Number	Percentage
1. Are there any club on ecological civilization in your university?	A. Yes	1223	76.68%
	B. No	372	23.32%
Total		1595	1
2. Are there any practical activities on ecological civilization education in your university?	A. No	429	26.90%
	B. Once or twice a year	748	46.90%
	C. Three to five times a year	218	13.67%
	D. 6 times or more per year	200	12.54%
Total		1595	1

Table 4.10 Survey Results of the Education Atmosphere in Family and Community

Question	Answer	Number	Percentage
Have you ever been exposed to any education related to ecological civilization in your family?	A. Yes	1347	84.45%
	B. No	248	15.55%
Total		1595	1
Is there awareness and education about ecological civilization in the community you live in?	A. Yes	1382	86.65%
	B. No	213	13.35%
Total		1595	1

As can be seen from the above tables, university, families and communities play a very important role in the ecological civilization education of the university students. In terms of the curriculum system of the university, 74.36% of the students participating in the survey reported to the public elective courses of ecological civilization, 67.02% the professional elective courses of ecological civilization, 64.08% the public basic courses of ecological civilization, and 50.28% the professional compulsory courses of ecological civilization. It can be seen that there is still some room for optimization in university curriculum setting, especially in the teaching process of professional courses, the integration of ecological civilization related content is not enough. More importantly, in the academic activities or reports related to ecological civilization, there were too few. Nearly one third of the students participating in the survey reported that the school did not hold academic activities or reports related to ecological civilization, and less than one quarter of them held more than three times a year. At the same time, among the practical activities carried out by the school, 26.21% of the practical activities related to ecological civilization are more than three times a year, and 26.90% of the people with no practical activities related to ecological civilization are reported. It can be seen that the school carries out few educational practice activities related to ecological civilization. According to the survey, families and communities make similar contributions to the creation of ecological civilization education atmosphere, accounting for about 85% of

the students' feedback that they have received education or publicity content related to ecological civilization in their families and communities. This proportion is significantly higher than the understanding of the school ecological civilization related community, therefore, the school ecological civilization related community activities fully, makes the student understanding of school ecological civilization community is lower than the family and community ecological civilization education and propaganda, the difference between them nearly 10%.

The Students' Practice of Ecological Civilization in their daily life and Study

The practice and study of ecological civilization in the university students' daily life is an important link to cultivate their awareness of environmental protection and sustainable development concept. On campus and in daily life, the university students can learn and practice the concept of ecological civilization in various ways to promote their positive actions in environmental protection and sustainable development. In this study, the researcher explored the practical actions that promote ecological civilization among the university students, including frugal living, environmentally conscious shopping, water and electricity conservation, and active participation in garbage classification. These actions reflect their commitment to environmental sustainability and the promotion of ecological civilization. In their daily lives, the university students can proactively adopt environmental protection measures such as conserving water and electricity, practicing garbage classification, actively engaging in resource recovery, and advocating for the sustainable use of resources. These actions reflect their commitment to environmental responsibility and promoting the sustainable development of resources.

The survey results of the university students' practice of ecological civilization in their daily life and study are shown in Table 4.11-15. And the analysis of variance (ANOVA) result of the university students' practice of ecological civilization is shown in Table 4.16

Table 4.11 Survey Results of the Students' Practice of Frugal Life

Question	Answer	Number	Percentage
What are your habits in terms of food, clothing, housing and transportation in your daily life?	A. Pursuit of high quality and high consumption	34	2.13%
	B. General, no intentional how to do	328	20.56%
	C. Green, low-carbon, frugal	1233	77.30%
Total		1595	1

Table 4.12 Survey Results of the Students' Practice of Shopping Habits

Question	Answer	Number	Percentage
Do you buy plastic bags from the supermarket when you shop at the supermarket?	A. No	416	26.08%
	B. Occasionally	1009	63.26%
	C. Often	170	10.66%
Total		1595	1

Table 4.13 Survey Results of the Students' Practice of Garbage Classification and Disposal

Question	Answer	Number	Percentage
Do you usually separate your garbage?	A. No	103	6.46%
	B. Occasionally	463	29.03%
	C. Often	1029	64.51%
Total		1595	1

Table 4.14 Survey Results of the Students' Practice of Saving Water and Electricity Resources

Question	Answer	Number	Percentage
Will you immediately cut off the power plug after using the computer or cell phone after charging?	A. No	221	13.86%
	B. Occasionally	526	32.98%
	C. Often	848	53.17%
Total		1595	1
What do you usually do when you encounter a long light or long running water?	A. Ignore	23	1.44%
	B. Occasionally turn off	203	12.73%
	C. Turn off immediately	1369	85.83%
Total		1595	1

Table 4.15 Survey Results of the Students' Practice of propaganda on Ecological Civilization

Question	Answer	Number	Percentage
Do you promote ecological civilization to others?	A. Not done	147	9.22%
	B. Sometimes do this	773	48.46%
	C. Do this often	675	42.32%
Total		1595	1

The effectiveness of education is mainly reflected in the implementation of students in their daily life and practice. The unity of knowledge and action is one of the main goals of education. Education is not successful education. In the investigation of the practice and study of ecological civilization in the daily life of the university students, it is found that it is not optimistic about the students' action of integrating knowledge and practice in ecological civilization education. In terms of frugality, 77.30% advocate green, low-carbon and frugal life, and 20.56% pay less attention to frugality. In addition, 2,13% of the university students pursue high quality and high consumption level lifestyle. Correspondingly, the proportion of the

university students buying plastic bags from supermarkets is 10.66% often and 63.26% sometimes. Together, these two parts account for 73.92%. Only the proportion of the university students who never buy plastic bags in supermarkets are 26.08%. In addition, only 53.17 percent of the university students turn off the power immediately after using their computers or charging their mobile phones. In the case of long light or long water, 85.83% of the university students will immediately turn off, and 12.73% of the university students will occasionally close off, while 1.44% ignore this. In terms of garbage classification, 6.46% of the university students do not do it, and 29.03% of the university students often do it. These two parts together account for 35.49%, indicating that more than one-third of the university students have poor practice of garbage classification. In terms of ecological civilization publicity, 42.32% of the university students often promote ecological civilization related content with others, 48.46% of the university students sometimes promote ecological civilization related content with others, and 9.22% of the university students do not promote ecological civilization related content with others. Thus it can be seen that in the process of ecological civilization construction, the role of the university students has not been fully shown.

In an in-depth analysis of the practice of ecological civilization among the students in the university, the researcher used the statistical mean, variance and standard deviation to describe the characteristics of ecological civilization behavior of the university students, and the statistical analysis of the resulting data of the survey was performed. This is a common way to make statistics and describe a set of data. These data are obtained by evaluating the attitudes or opinions of the university students on their behavior in ecological civilization. Through the analysis of the mean value, variance and standard deviation of the data of the university students' ecological civilization practice, it can help us to better understand the overall performance of the students in ecological civilization in the university and the dispersion degree of the data, so as to better guide the ecological civilization education and promote the development of ecological civilization practice. This information is crucial for guiding and tailoring ecological civilization education to address specific needs and encourage further development of ecological civilization

practice among students. It helps educators and policymakers make informed decisions to promote a more sustainable and ecologically conscious society.

Table 4.16 ANOVA Analysis Result of the Students' Practice of Ecological Civilization in Their Daily Life and Study

The students' practice of ecological civilization	N	\bar{X}	S.D.	Rank
The habits of food, clothing, housing and transportation in daily life	1595	2.75	0.479	5
Buy plastic bags from the supermarket while shopping at the supermarket	1595	2.15	0.586	4
Cut off the computer or mobile phone immediately after charging the electric plug	1595	2.39	0.718	1
Usually practice encounter "long light" "long water" situation	1595	2.84	0.401	6
Garbage classification and treatment	1595	2.58	0.611	3
Actively promote ecological civilization	1595	2.33	0.637	2

Moreover, in terms of ecological civilization practice, there are relatively significant differences between individuals. It can be seen clearly from the table 4.16.

Section 3: The contents and strategies of ecological civilization education

Based on the practical requirements of the construction and development of socialism with Chinese characteristics in the contemporary new era, combined with the above survey results and the interview results of 12 teachers, the content and strategies of ecological civilization education for the university students in the modern new era are put forward.

In the modern new era, the education of the university students' ecological civilization should be Xi Jinping's thought of ecological civilization construction as the instruction. And make full use of local resource advantage and model case of ecological civilization construction, combining the ecological civilization education of

the university students with professional education and skill training. On the basis of accurately grasping the scientific connotation of Xi Jinping's ecological civilization thought, the students in the university in the modern new era can have a deeper understanding of the new development strategy that put forward in the construction of the ecological civilization in China. Based on these above mentioned, we will help the students in the university in the modern new era to improve their ecological civilization literacy, further strengthen the ideal and faith in constructing a beautiful China, and actively participate in the task of realizing the high-quality development and construction of ecological civilization all over the world.

According to Xi Jinping's important discourse on the construction of ecological civilization, the content of ecological civilization education for the students in the university in the modern new era is formulated, which mainly includes the following eight aspects.

The Contents of Ecological Civilization Education for the University Students in the New Era.

1. Education on the ecological and history view of "Ecological Prosperity, Civilization Prospers".

"Ecological Prosperity, Civilization Prospers. Ecological Decline, Civilization Decline". There is an important connection between the prosper and decline of civilization and the change of ecological environment. History shows that the evil fruit of human beings' excessive demand for nature will ultimately become a threat to human beings themselves. As human beings utilize and transform nature, it is imperative to uphold the principles of respecting the laws of nature. We should put the education of ecological civilization history in the first place of the ecological civilization education of the students in the university in the modern new era. And we should build a grand ecological civilization construction idea for the students in the university in the modern new era from the perspective of the overall situation.

Carry out ecological history view education to educate students to realize the importance of ecological environment to the development of human civilization, understand the impact of ecological crisis on history and culture, cultivate students'

cognition of ecological problems in history, and stimulate their sense of responsibility and duty towards the ecological civilization, encouraging the university students to take action and fulfill their mission in this regard. Through courses and lectures, students are taught to understand the major ecological disasters in history, such as the flood of the Yellow River and the drying of lakes, so that students can realize the impact of ecological damage on the development of civilization and foster their strong sense of responsibility for the protection of the ecological environment. Through incorporating history courses and conducting case studies, such as the consequences of ancient civilizations' decline caused by excessive land reclamation, students can understand the the historical significance of ecological environment damage on the progress of civilizations in history. Conduct field visits to investigate the contribution and ecological benefits of ancient Chinese water conservancy projects to social development, investigate the protection of local historical and cultural sites, put forward corresponding suggestions on ecological protection, and let students personally understand the protection and restoration of historical and cultural sites, so as to stimulate the protection awareness of the cultural heritage and the ecological environment.

2. Education on the ecological and natural view of “Human and nature coexist in harmony”.

According to the Marxist view of nature, man has an inseparable relationship with nature, and human beings rely on nature, and nature provides conditions for the survival and development of human beings. General Secretary Xi Jinping's view of adhering to the harmonious coexistence between humanity and nature is a correct interpretation of the relationship between human beings and the nature world. Human beings must respect the laws of nature, adapt to the development and changes of nature, and take dedicated efforts to safeguard the natural environment in the development and construction of our modern society. The most basic content of ecological civilization education for the students in the university in the modern new era is to guide the university students to correctly understand the relationship between the human beings and the nature.

Most of the university students in the modern new era are the only child, and being self-centered is its more obvious characteristic tendency. Reflected in the ecological civilization, the comprehension of the relationship between the human beings and the nature is easy to fall into the anthropocentrism. The education of ecological nature view is to cultivate students' consciousness of respecting nature and living in harmony with nature. Through ecology and environmental science courses, students can understand the complexity and vulnerability of the natural system, as well as the interaction between the human beings and the nature. These can guide them to form an ecological nature view of harmonious coexistence between the human beings and the nature. Courses on nature conservation and ecological restoration allow students to learn the restoration and conservation methods of ecosystems, understand the basic principles of ecosystems and the importance of biodiversity, and participate in ecological restoration projects. Organize outdoor practice and exploration activities, let students get close to the natural environment, experience the beauty of nature and the miracle of life, and cultivate respect and awe for nature. Arrange ecological travel or visit nature reserves, guide students to understand the operation rules of natural ecosystems, observe the interaction between biodiversity and ecosystems, and cultivate their environmental sensitivity and attention to biodiversity and ecological balance. In biology or environmental science courses, students learn how to protect wildlife and ecosystems, and the interdependence of the human beings and the nature.

3. Education on the ecological civilization development thought of “Lucid waters and lush mountains are invaluable assets”.

The words “Lucid waters and lush mountains are invaluable assets” emphasizes how to correctly strike a balanced approach between economic development and ecological environment preservation. Lucid waters and green mountains are gold mountains and silver mountains, which are the core of Xi Jinping's thought on ecological civilization. The key to solving the contradiction between clear waters and green mountains and gold mountains and silver mountains lies in how people understand the relationship. Economic development should not come at the expense of resource depletion and the degradation of the ecological

environment. Instead, it should prioritize the harmonious coexistence of human progress and nature, embracing the unity of protection and development. Achieving all-round, comprehensive, and coordinated development is the key to sustainable growth. The ecological development concept education is a crucial aspect of ecological civilization education for the university students in the modern new era. It plays a pivotal role in shaping their understanding of the relationship between human society and the environment.

The education of the ecological development concept is to educate the university students to realize the intimate connection between the protection of the ecological environment and the sustainable development of the society, cultivate students' concept of green development, guide them to understand green economy, circular economy and other related knowledge, and encourage them to pursue the coordinated development of economic development and ecological environment in career choice and entrepreneurial practice. Focus on the organic combination of ecological civilization education with various disciplines. Green development courses are offered to teach the concept of sustainable development, green economy model and environmental management technology, and stimulate students' interest in green development and innovation ability. By hosting special lectures and seminars, we aim to engage environmental experts and industry representatives who will share their knowledge on cutting-edge concepts in green economy, renewable energy, and sustainable development. Through these interactions, students will be inspired to contemplate the delicate interplay between economic growth and ecological well-being. Innovation and entrepreneurship courses are offered to encourage students to take green industry as their entrepreneurial direction and cultivate their innovative awareness and entrepreneurial ability in the field of sustainable development. Conduct innovation and entrepreneurship projects, encourage students to participate in related innovation projects and enterprise entrepreneurship, encourage students to put forward the green economy business model and sustainable development innovation plan, and cultivate their environmental awareness and innovation and entrepreneurship ability. Our goal is to develop environmentally friendly and health-conscious products that cater to people's needs, while also fostering a sustainable way of production and living that

conserves resources and safeguards the environment. Organize educational field trips to green development demonstration areas and ecological agriculture bases, allowing students to gain firsthand insights into sustainable development and ecological and environmental protection through practical examples and real-life experiences. Advocate the university students to reduce or put an end to extravagant life, advocate thrift, and contribute to the sustainable development of ecological resources.

4. Education on the ecological and people's livelihood concept of "A sound ecological environment constitutes the most universal benefit to people's well-being".

The concept of people's livelihood encompasses not only meeting the people's material needs but also striving for continuous improvements in their quality of life and the living environment, including the ecological environment they inhabit. Ensuring that the benefits of a healthy ecological environment reach the majority of the population and contribute to their happiness is vital. Ecological civilization is a shared endeavor for the university students and all members of society in the modern new era, and it should be vigorously promoted and cultivated. To instill a sense of responsibility in the university students towards building a beautiful China, ecological livelihood education in the modern new era should be emphasized.

Ecological view of the people's livelihood education is education students realize good ecological environment is very important for the well-being of the people, understand the ecological environment for people's health, living, employment, etc, cultivate students' consciousness of people's livelihood, guide them to focus on the people's livelihood problems and the ecological environment, make contributions to improve the human being's livelihood. Open courses to study and study the impact of environmental pollution on human health, introduce the important impact of ecological environment on the quality of the human being's life, and carry out the health and environmental protection publicity activities to improve the public's awareness of the environmental protection. Though organizing the community environmental protection activities, that can let students and residents participate in environmental protection public welfare projects, such as garbage classification, cleaning action, afforestation and other practices, so as to improve their understanding of the correlation between environmental quality and residents'

quality of life. Arrange social practice, students participate in rural revitalization projects, understand the practical work of the ecological protection in rural area and improvement of the human being's livelihood, encourage them to participate in the practice of community environmental protection and improvement, and cultivate their awareness of contributing to rural development and residents' well-being. Carry out research and research topics, let students understand the influence of environmental pollution on people's health and quality of life, and put forward corresponding solutions.

5. Education on the ecosystem view of “Mountains, rivers, forests, fields, lakes, grass and sand are a community of life”.

General Secretary Xi Jinping vividly uses "mountains, rivers, forests, farmland, lakes, and grasses" and life to describe the inseparable relationship between the human beings and the nature. In the modern new era, the cultivation of ecological system view among the university students should not be ignored. The university students should realize the integrity of ecology, have an understanding of any situation that may lead to ecological problems, and restrain their own behavior.

Ecosystem view education is to train students to understand the basic concept, structure and function of the ecosystem, guide them to understand the interaction and interdependence of the ecosystem, stimulate students to pay attention to biodiversity and ecological balance, and cultivate their awareness and ability to protect the ecosystem. In the ecology course, the experimental course is designed to let the students understand the mutual relationship and interdependence of the various components of plants, animals and other ecosystems through experiments and observation, and learn the structure, function and mutual relationship of each ecosystem. Organize field trips and field trips, such as visiting nature reserves, wetland parks and other places, investigating and investigating mountain ecology, lake wetland ecology, etc. Students get close contact with various ecosystems, feel the importance of biodiversity and ecological balance, and learn the ways of the ecological protection and restoration. Let the students have a deep understanding of the characteristics of different ecosystems and the importance of biodiversity, encourage them to participate in ecological

conservation volunteer activities, and cultivate their awareness and action ability to protect ecosystems and biodiversity. Conduct research projects on ecological conservation and biodiversity conservation to promote actions to protect endangered species and habitats.

6. Education on the ecological rule of law view of “We will safeguard the ecological environment through the most stringent system and the most rigorous rule of law”.

In order to complete the fundamental reform of the way of production and the way of production and life and the complete transformation of people's way of thinking and values, it depends on strict institutions and the rule of law. General Secretary Xi Jinping has repeatedly stressed that we should not step beyond the issue of ecological and environmental protection, or we will be punished. Ecological legal consciousness belongs to the coercive effect of external forces, has the coercive and standardization of rule of law, and the effect is more powerful and effective, so ecological rule of law education is imperative.

The education of ecological law view should educate students to realize that the protection of ecological environment needs to be managed according to law, understand the laws, regulations and policies and measures of ecological environment protection, cultivate students' awareness of the rule of law, guide them to participate in ecological environment protection through legal channels, and promote the formation of the legal concept of the whole society to jointly protect the ecological environment. Open environmental law courses, organize legal knowledge lectures and seminars, learn relevant environmental protection laws and regulations, understand the operation of environmental administration and legal system and the important role of the rule of law in ecological environmental protection, and cultivate students' legal awareness and sense of responsibility for environmental protection. Organize a mock court or debate competition, let students play the role of environmental prosecutors and lawyers, solve actual environmental dispute cases, and deepen their understanding of environmental law and judicial practice.

7. Education on the ecological co-governance concept of “Strive to construct a beautiful China”.

The 18th CPC National Congress of the CPC set the goal of building a beautiful China, and the 19th CPC National Congress set the goal of fundamentally improving the ecological environment and basically achieving the goal of building a beautiful China by 2035. Building an ecological civilization is a cause of all the people and is also a conscious action of all. To carry out the education of ecological co-governance, the university students in the new era can realize the internal relationship between ecological civilization construction and themselves. We should guide them to face their own ecological responsibilities, take the initiative to assume their own ecological obligations, and bravely shoulder the responsibility of building an ecological civilization and a beautiful China.

Ecological co-governance education is to educate students to understand the ecological protection requirements in the rural revitalization strategy and urban development planning, cultivate students' sense of social responsibility and participation, guide them to understand the integrated development of ecological civilization and urban and rural construction, and stimulate students' desire to actively contribute to the construction of a beautiful China. With urban and rural planning courses, students learn how to integrate ecological protection and environmental planning into urban and rural construction to achieve the goal of a beautiful China. Lecture on environmental protection, invite successful cases of ecological civilization construction to share, and stimulate students' enthusiasm to participate in the construction of a beautiful China. Organize social practice activities, students participate in community environmental governance projects, cooperate with local governments and community residents, such as garbage classification and greening activities together with community residents, to solve environmental problems together, cultivate the awareness and practical ability of ecological co-governance, and promote the practice of ecological co-governance. Visit ecological city, ecological village demonstration projects, understand the local ecological protection and environmental governance practice, learning ecological city planning and construction experience, understand the concept of urban and rural ecological

and work, carry out social practice project, let students participate in the local ecological construction and environmental protection work, cultivate their social responsibility and participation ability.

8. Education on the ecological overall view of “We will collaborate to advance a worldwide ecological civilization”.

In the vision of General Secretary Xi Jinping, the concept of a community with a shared future for mankind has been emphasized. Every country and every person shoulder the important mission of protecting the ecological environment. China is the first country in the world to put forward the construction of the ecological civilization. In the modern new era, the students in the university should deeply understand and grasp the scientific connotation of a community with a shared future for mankind. They are encouraged to actively explore the path of ecological civilization construction, and contribute to the global environmental governance.

The ecological holistic view education should guide students to pay attention to global environmental issues, understand the international issues such as global climate change and biodiversity conservation, cultivate students' global vision and awareness of international cooperation, stimulate their enthusiasm to actively participate in the construction of global ecological civilization, and promote cross-border environmental cooperation and exchanges. With a course on Global Environmental Issues, students can learn about international issues such as global climate change, biodiversity conservation, transnational pollution and other issues, understand the environmental policies and actions of different countries, and develop a global perspective and a sense of environmental responsibility. Organize international exchanges and cooperation projects, students to participate in the activities of international environmental protection organizations or cooperation with foreign students, let students understand the global environmental issues, understand the environmental problems of different countries and regions and the effective solutions, deepen the understanding of the ecological challenges in the world and cooperation, stimulate their global vision and international cooperation consciousness, participate in the global environmental protection organization

project, put forward the contribution to the construction of global ecological civilization ideas.

Through the above eight aspects of content education, the ecological civilization education of the students in the university in the new era can better implement the important discourse of General Secretary Xi Jinping on the construction of ecological civilization, and cultivate students' deep understanding and practical ability of ecological civilization. Through different curriculum setting and specific educational practice activities, students' ecological awareness, sense of responsibility and practical action ability can be cultivated, so as to promote the construction of ecological civilization and cope with the ecological challenges faced by contemporary society. This will help train generations of the university students to become builders and inheritors of ecological civilization who pay attention to and actively promote ecological civilization construction, and make positive contributions to building a beautiful China and promoting the construction of global ecological civilization.

The Effective Strategies of Ecological Civilization Education

Combined with the above proposed educational content and the interview results of 12 teachers in Qingdao Hengxing university, the effective strategies of ecological civilization education for the students in the university in the modern new era mainly include the following seven aspects.

1. Integrate the education of ecological civilization into the curriculum system of the university students' talent training.

Ecological civilization education should be incorporated into the school public curriculum and professional curriculum system, and integrated into the education and teaching of all disciplines. For example, environmental ethics, ecological ethics and other courses are offered in general education. Professional courses related to ecological civilization, such as ecology, environmental science, sustainable development, etc., and ecological civilization education is integrated into the curriculum system of various disciplines, so that students can have access to and learn relevant ecological and environmental knowledge in all disciplines. For example, the concept and case of green economy are introduced into the

economics course to let students understand the relationship between economic development and ecological environment. In social science courses, student thinking and discussion can be triggered by discussing environmental policy and sustainability cases. Open an interdisciplinary ecological civilization course, invite teachers from different disciplines to teach together, analyze ecological issues from the perspective of multiple disciplines, and encourage students to conduct group research projects, cultivate teamwork and comprehensive analysis ability. Encourage the cooperation and communication between different disciplines, promote the interdisciplinary integration of ecological civilization education, let students explore ecological problems from the perspective of different disciplines, and jointly seek solutions. These courses can provide systematic theoretical knowledge and case analysis, and help students to deeply understand the importance of ecological environment and protection methods, cultivate their ecological civilization literacy, and cultivate systematic thinking and comprehensive analysis ability. At the same time, Xi Jinping's ideological education should be strengthened, and Xi Jinping's important discourse on ecological civilization construction should be deeply studied and discussed through lectures, seminars and discussion classes. By interpreting and interpreting general Secretary Xi Jinping's important speeches and literature, we can help students to better understand and apply the concept of ecological civilization.

2. Build a high-level teaching staff that can fulfill the demands of the university students' of ecological civilization education.

First of all, colleges and universities can regularly organize teachers to carry out ecological civilization quality training, invite experts to give teachers lectures on ecological civilization knowledge, and pay attention to the training and training of teachers' professional knowledge, ecological civilization concept and awareness, and ecological civilization culture. Secondly, we should pay attention to the professional training of network knowledge and computer technology, and enhance teachers' practical ability to use new media. Finally, corresponding policies and management rules and regulations should be issued, requiring teachers to combine ecological civilization education with professional education and practice, and encourage teachers to conduct in-depth research on the educational objectives, content,

methods, practical teaching methods and evaluation standards of professional courses based on ecological civilization education. Experts and scholars in the field of environmental protection can also be invited to give lectures to share their research results and practical experience. Invite excellent practitioners of enterprises as practice mentors to strengthen the guidance and help of ecological civilization education for the university students.

In terms of teaching means and teaching methods, university teachers should make full use of multimedia teaching, use multimedia technology to innovate teaching methods, and display the ecological and environmental problems and protection measures with vivid pictures, videos and examples. For example, using virtual reality technology to allow students to personally experience the impact of environmental problems such as forest fires and water pollution, and using virtual reality technology to let students personally experience the beauty and vulnerability of coral reefs to deepen their understanding of Marine ecological protection, so as to enhance their perception and cognition. Use multimedia technology and interactive platform to improve students' cognition and understanding of ecological civilization and stimulate their interest in learning. In the process of the ecological civilization education, we should adhere to problem-oriented learning, and guide students to learn by asking questions and solving problems. Teachers can put forward the practical problems of ecological environment protection, let the students explore and research independently, and cultivate their spirit of inquiry and problem-solving ability. In addition, students can conduct research in groups, investigate and analyze local environmental problems, and propose solutions. Through teamwork and practical operation, cultivate students' problem-solving ability and innovative thinking. Carrying out discussion and debate is also a very good teaching method and means. By organizing students to participate in the discussion and debate of eco-environmental issues, they are encouraged to express their views, debate issues and propose solutions. This can promote students to deepen their understanding of ecological and environmental problems, and develop the ability which can correctly analyze and solve problems. University teachers should pay attention actively to the establishment of ecological civilization education resource database, integrate and

share relevant teaching materials, cases and activity programs. Students and teachers can access various educational resources through the resource pool, enrich the classroom teaching content, and carry out group discussions and research projects.

3. Encourage students to actively engage in ecological civilization practice and experience teaching.

Combine ecological civilization education with practice, and let students personally participate in the practical activities of ecological environment protection and restoration. For example, organize students to participate in environmental protection, ecological investigation, ecological restoration, garbage classification community projects, let them experience the importance of ecological civilization construction and practical work, independently explore ecological environment problems and solutions, enhance their practice ability and environmental protection consciousness, take concrete actions to promote the construction of ecological civilization. Organize students to carry out ecological investigation activities, such as to nature reserves, wetland parks and other places for field observation and research, understand the local ecosystem, species diversity and protection measures, and put forward corresponding suggestions and solutions. Through field visits, community participation, ecological protection projects and other practical activities, students can personally experience the work related to ecological environment protection, and enhance their practical ability and sense of responsibility. Organize competitions, forums, seminars and other activities on the theme of network ecological civilization, encourage students to actively participate in it, and show their research results and innovative results.

4. Strengthen the construction of educational resources for online and ecological civilization.

Create a special ecological civilization education platform, to provide a rich learning resources and communication platform. The ecological civilization education website can be hung on the website of the school student Affairs Department or the Youth League Committee, or a special topic can be set up for this purpose to set up a special website according to the real-time development of ecological civilization. It is necessary to update the website content in time, enhance the attraction and

cohesion of the website to students, and give full play to the educational role of the ecological civilization education website to students. Online learning platform can provide rich ecological civilization education resources, including teaching courseware, teaching videos, online courses, etc. Integrate high-quality network resources, such as ecological civilization related academic papers, research reports, policy documents, etc., for students to consult and reference. Create ecological civilization education online learning community, students can through the platform independent learning knowledge and theory, obtain information, participate in discussion, share experience, questions, and interact with other students and teachers, promote the thought collision between students and knowledge sharing. Through educational initiatives and practical experiences, students can develop a deeper understanding of the principles and application of ecological civilization. Schools can organize experts to answer questions online, answer students' questions and doubts, and provide professional guidance and support. The platform can also provide learning tools and educational games to meet the needs of students for independent learning. In addition, experts and scholars in the field of ecological civilization can also be organized to conduct online seminars and lectures through the online platform. Students can participate in discussions, ask questions through the Internet, and interact with experts to broaden their horizons and stimulate their academic interest.

5. Build an ecological civilization education platform for multi-party cooperative and cooperative education.

We should give full play to the advantages of various educational subjects, enhance the sense of responsibility and awareness of the government, industrial enterprises, universities, communities and families to participate in ecological civilization education, and build a platform for multi-party education and cooperation. We should give full play to the subjective initiative of each educational subject, and share and jointly promote the sustainable development of ecological civilization education among the university students. As the core of education, universities can organize students to conduct cross-level exchanges and cooperation with enterprises, governments and social organizations. Students can visit the

environmental protection facilities of enterprises, the ecological planning of government departments, and the protection projects of NGOs, so as to understand the roles and practices of all parties in the construction of ecological civilization. For example, the school cooperates with environmental protection organizations to carry out social practice projects on environmental protection theme, let students participate in environmental monitoring, environmental investigation, publicity activities and other practical work, and cooperate with professionals and social volunteers to jointly carry out environmental protection projects to cultivate their practical operation ability and team spirit. Universities can establish cooperative relations with local governments, enterprises and institutions to participate students in local ecological governance. By organizing field trips and project research, students can deeply understand and participate in ecological protection, environmental planning and resource management. Through the multi-party ecological education platform, students can obtain a full range of ecological civilization education resources and support, from academic theory to practical projects, from expert interaction to social cooperation, to comprehensively improve their ecological civilization literacy and innovation ability. At the same time, the platform also promotes the multi-party cooperation between schools, experts and students to jointly boost the development of ecological civilization education.

6. Implement the Green Campus Action Plan.

The university can gradually achieve the goals of the Green Campus Action Plan, promote environmental awareness and actions among students and staff, and promote the integration and practice of the concept of sustainable development on campus. The concept of ecological civilization can be integrated into campus management and daily life, and green lifestyles such as energy conservation and emission reduction, resource recycling, green travel and so on can be advocated. Encourage teachers and students to participate in campus greening and afforestation activities to create a beautiful green campus environment. Universities should carry out more campus environmental protection publicity activities, such as keynote speeches, green action days, so that students can understand the campus green construction and environmental protection measures, and encourage them to take

part in the environmental protection practice in the university, such as organizing garbage sorting volunteers, promoting sustainable water conservation and other activities. The establishment of garbage classification system, the implementation of energy conservation and emission reduction measures, the promotion of renewable energy. By providing students with opportunities to experience the significance of environmental protection in their daily lives, we can strengthen their commitment to implementing the principles of environmental conservation in their everyday practices.

7. Strengthen the organization and guarantee of ecological civilization education.

Universities should earnestly implement the decision of ecological civilization education, make a good arrangement of ecological civilization education, and construct the organizational structure of ecological civilization education in the universities. Establish and improve the leadership responsibility system for ecological civilization education, implement the ecological civilization education work of all departments, the universities and departments to the responsible persons, and organize institutions at all levels to study at all levels. A comprehensive evaluation mechanism should be established to bring ecological civilization education into the comprehensive evaluation system of students. In addition to the traditional examination and paper grading, it focuses on assessing students' ecological awareness, environmental behavior and social responsibility. It can be evaluated through classroom participation, social practice reports, environmental competitions, environmental protection projects, etc., to encourage students to actively participate in ecological civilization education. In addition, reward and commendation mechanisms can be set up, such as ecological civilization innovation awards and ecological volunteer awards, to stimulate students' enthusiasm and creativity and encourage students to make positive performance and achievements in ecological civilization education.

These strategies can effectively promote the implementation of ecological civilization education for the university students in the modern new era, have certain pertinences and effectiveness, and can effectively improve students' participation and educational effect. Through the combination of practice, participation,

interdisciplinary integration and innovative teaching methods, students' interest and enthusiasm can be stimulated, and students can deeply understand the core concepts of ecological civilization, cultivate their awareness of environmental protection, innovative thinking and practical ability, and transform them into practical actions. Enhance the university students' attention and sense of responsibility to the ecological environment, so as to actively participate in the ecological environment protection and sustainable development in the future society, promote the all-round development of students, and make positive contributions to the effective construction of the beautiful China, and promote the construction of global ecological civilization.

Section4: The innovative mechanism of ecological civilization education

According to the research results showed above, combined with the social needs of the current university students' ecological civilization education, and applying the ecosystem theory, the author established the mechanism model of ecological civilization education of family, university and social co-education. The aim is to establish an ecological civilization education mechanism of extensive consultation, joint contribution and sharing among families, universities and communities, so that they can better coordinate and jointly do a good job in the ecological civilization theory and practice education of the university students.

Ecological civilization education on the students in the modern university involves many influencing factors, that including three main aspects such as family, university and society. It is of great significance to establish a cooperative education mechanism to effectively promote ecological civilization education. The cooperative education mechanism that involves family, university, and society is essential for the comprehensive development of students' ecological consciousness. By integrating these three elements, students are encouraged to internalize ecological values, form a strong sense of responsibility towards the environment, and actively engage in eco-friendly practices.

This is the framework diagram (Fig. 4.7) of the dynamic balance and open sharing mechanism system of ecological civilization for the university students.

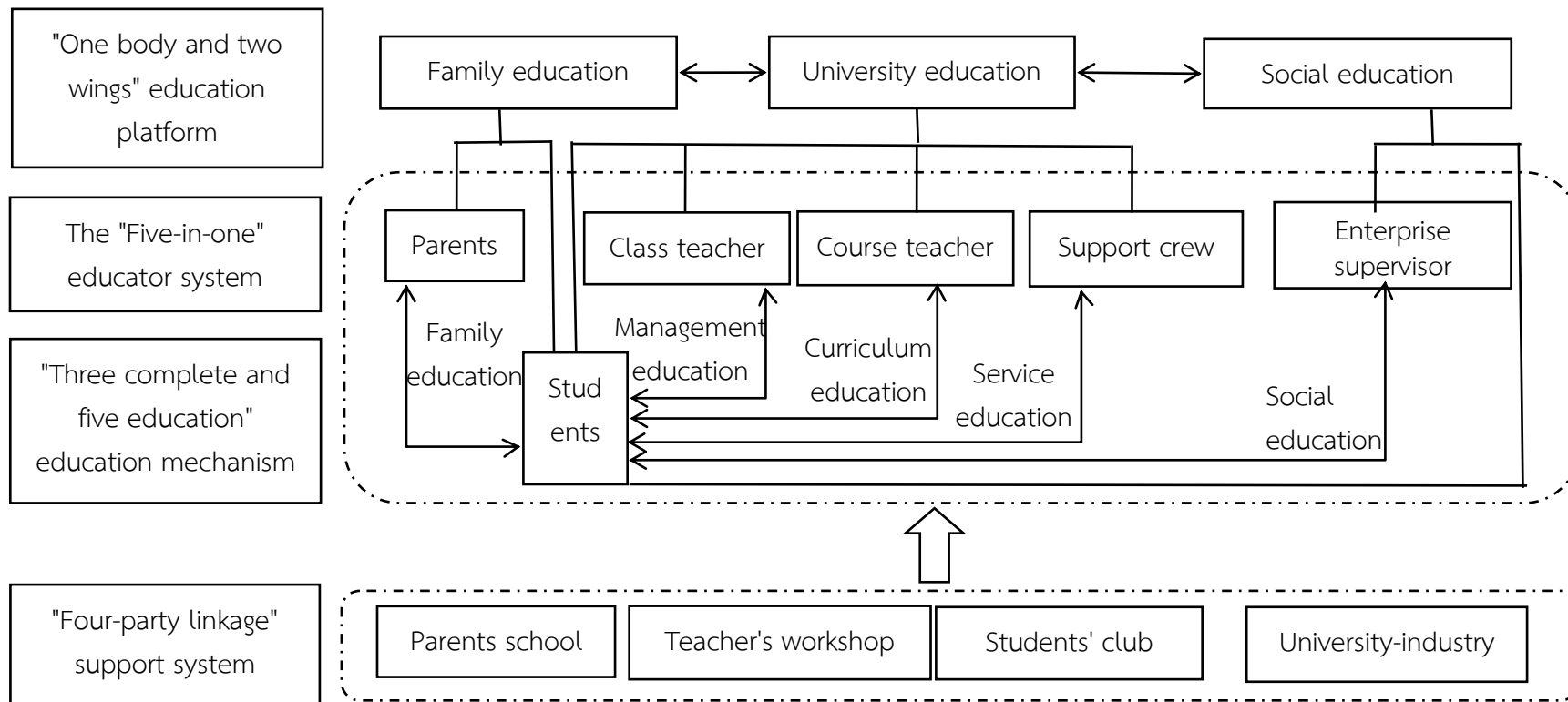


Figure 4.7 The Innovative Mechanism of Ecological Civilization Education

In Figure 4.7, we can see that the three educational subjects of family, university and society are interrelated and influence each other, jointly forming an education platform of "one body and two wings". The most important aspect of its healthy operation is to use the relevant theory of ecosystem and deeply explore the internal relationship of the co-education ecosystem model. Parents in families, the university teachers and logistics personnel, as well as supervisors of enterprises and social organizations in all walks of life, together constitute the "five-in-one" educator system. Different educators actively implement the national educational concept of "three comprehensive education", integrate students in different periods and situations, and jointly establish a dynamic balance and open and sharing education mechanism of the family and university ecosystem of "three complete and five education". The university at the core of education should focus on efforts to build platforms for parents, teachers, student clubs and university-industry cooperation, form a support system of "four-party linkage" system, and promote the dynamic balance, benign and sustainable development of the home-university ecosystem. Through interaction, balanced development, open and sharing, the cooperation and cooperation of various subjects can create more educational opportunities, improve the quality of education, promote the fair development of education, and realize the comprehensive, healthy and sustainable development of individual students.

Family education plays a catalyst role in the implementation of ecological civilization education for the university students, and has a very important subtle influence on students. It can cultivate a healthy lifestyle of the university students through household garbage classification, green consumption and other behaviors, and play a consolidating role for the effect of ecological civilization education in the universities. Social education is the effective way to apply ecological civilization theory to practice, can by conducting visiting characteristic villages and towns, participating in community service, participating in urban ecological cultural activities, let the students in a variety of practice, then they will apply the theoretical knowledge into the practice. These can exercise and cultivate the students' consciousness of ecological civilization and the sense of responsibility in practice. Ecological civilization education in the universities is not only a crucial part of

ideological and political education, but also a key link to realize the construction of socialist ecological culture. It is necessary to fully mobilize the enthusiasm of family and society to participate in, and jointly build a linkage mechanism of ecological civilization education. As as for as in the process of multilateral collaborative education, form the correct direction of ecological civilization public opinion, and form the joint force of the university students ecological civilization education with the aid of campus culture edification and social ecological scene perception. Giving full play to the resource advantages of social, family and universities, and correctly influencing the university students' ecological civilization consciousness, that can make them practice the ecological civilization concept in their own practical action, and can make them become the socialist ecological civilization construction promoters and practitioners under the background of Chinese characteristic in a new era.

The above innovation mechanism model of home-university and community co-education is of positive significance for promoting ecological civilization education and cultivating students' all-round development. This model covers multiple levels of cooperation, including family, university, society and enterprises, to create a richer and diversified educational environment. Here is an evaluation of this model.

The main advantages of this model include the following four aspects. The first is multi-party coordination. The model encourages the collaboration between families, university, society and enterprises to achieve a comprehensive integration of educational resources. Such cooperation can better meet the needs of students' comprehensive development and provide them with diversified learning experiences. The second is the interdisciplinary integration. The model emphasizes the integration of ecological civilization education in different disciplines, encourages interdisciplinary curriculum design, cultivates students' comprehensive quality and cross-field thinking ability, and helps to cultivate talents with the ability to innovate and solve complex problems. The third is social participation. Through social practice, student associations and university-run enterprises, the model encourages students to actively participate in social activities, cultivate their sense of social responsibility and practical operation ability, and make contributions to the future society. The fourth is

digital support. Digital education platform is introduced to provide students with convenient learning resources and promote collaboration and learning in the virtual space. This helps to adapt to the development trend of modern education and improve the teaching effect.

At the same time, the model also faces many challenges in its practical application. Considering the relevant challenges, we give the following suggestions. The first is about the difficulty of coordination. With multiple parties involved, effective collaboration may face the challenges of coordination and communication. Clear communication channels and cooperation mechanisms need to be established to ensure that all parties can fully participate and play to their respective strengths. The second is about resource allocation. Educational resources are limited, how to rationally allocate the resources in the family, university, society and other links, in order to achieve the maximum benefits, the need for careful planning and management. The third is about the persistence of the model. The success of the model requires long-term support and input, including continuous training, activity organization, resource renewal, etc. It is necessary to ensure that the innovation mechanisms can continue to develop and are not affected by changes in the external environment. The fourth is the evaluation mechanism of the model. Establishing an effective evaluation mechanism to measure the effectiveness of students in ecological civilization education and the effectiveness of the co-education innovation mechanism of families, university and societies is an important part to ensure the sustainable development of the model.

In general, the innovation mechanism model of home-university and social co-education established above has great potential in promoting ecological civilization education. By solving the above challenges and continuously optimizing the implementation of the mechanism, the effectiveness and influence of the model can be further enhanced, and make positive contributions to the overall growth of college students and the cultivation of social responsibility.

Chapter 5

Discussion Conclusion and Recommendations

This research is to study ecological civilization education in Qingdao Hengxing University. Based on a survey of in Qingdao Hengxing University, this paper analyzes the cognition of the current ecological civilization education by different personnel of different status, different gender, different grades, different majors, and so on, the main objectives of the study include:

1. To analysis the current situation and the problems of ecological civilization education in Qingdao Hengxing University.
2. To formulate the contents and strategies of ecological civilization education in Qingdao Hengxing University.
3. To fine out the innovative mechanism of ecological civilization education in Qingdao Hengxing University.

There are 785 full-time teachers and 18,400 students, with 40 undergraduate majors covering 9 disciplines in Qingdao Hengxing University. Using random sampling method, 1595 students and 12 teachers are selected as a sample group for analysis. The web-based questionnaire survey method was used in this study. In the process of the investigation, the questionnaire star platform is mainly used to produce and issue questionnaires. A total of 1645 questionnaires were collected in the survey. After the basic information detection, which were obviously inconsistent with the actual questionnaires, 1595 were valid, and the effective rate of the questionnaires was 96.96%. Using semi-structured interview, the researcher consulted 12 teachers to obtain the information about the content and effective strategies of ecological civilization education in the university in the new era. Based on the questionnaire survey and the interview, the researcher use statistical methods and knowledge related to the object of analysis to study the situation of ecological civilization education from a combination of quantitative and qualitative aspects. Andthrough analysis, we achieve a deeper understanding of the ecological civilization education in Qingdao Hengxing University. The details are as follows.

Conclusion

The current situation and the problems of ecological civilization education

The current situation and the problems of ecological civilization education in Qingdao Hengxing University are summarized as follows.

1. The students in Qingdao Hengxing university have a good overall understanding of ecological civilization. The students of different grades in Qingdao Hengxing university have roughly the same cognition of ecological civilization. Among these students surveyed, the students who possess a more comprehensive understanding of ecological civilization show a gradual increase from freshman to senior students. Compared with the students of the other three grades, the senior students having different cognition situations of ecological civilization fluctuate greatly.

2. The students in different majors show significant differences in their cognition of ecological civilization. The majors that university students are very aware of the meaning of ecological civilization are economic management, science and technology, and other related majors such as education. On the whole, students majoring in agriculture, literature, history, philosophy and law, and medicine are slightly weak in the cognition of ecological civilization. However, there is no finding whether there is some direct and inevitable connection between this and the professional background attributes.

3. There is little difference between different gender in the cognition of ecological civilization.

4. The students in the Qingdao Hengxing University generally have a good sense of identity with ecological civilization, and about 80% of the university students participating in the survey show a very good level of identification with ecological civilization. Most students in the university can pay attention to the information related to ecological civilization education actively, and think that it is very necessary to carry out some courses about the ecological civilization in universities. They believe that ecological civilization is very closely related to themselves, and they can correctly view the relationship between human and nature.

5. In terms of taking the initiative to pay attention to and obtain information related to ecological civilization, the university students choose online media take for the highest proportion, followed by academic lectures and classroom reports, and newspapers and periodicals. However, the university students take the initiative to find relevant information and learn less than half.

6. Up to now, the proportion of ecological civilization knowledge learned by the university students and the organization departments of ecological civilization activities they participate in is from universities, communities, families, social organizations, university associations, governments and scientific research institutes.

7. The students believe that university classroom education, community activities, education and activities carried out by social organizations are all more effective ways of ecological civilization education.

8. Regarding the arrangement of the curriculum system, there is still room for optimization of the content of ecological civilization education. Especially in the teaching process of professional courses, the integration of ecological civilization related content is not enough. The university has held few academic activities or reports related to ecological civilization. The educational practice activities related to ecological civilization carried out by universities few. The community activities related to ecological civilization in university are not sufficient.

9. In the investigation of the practice and study of ecological civilization in the daily life among the university students, it is found that the situation is not optimistic about the action of integrating knowledge and practice together in ecological civilization education in the university students. A small number of the university students still pursue a high quality and high consumption level lifestyle. More than 70 percent of students still buy occasionally or often plastic bags when shopping in supermarkets. Only half of the university students turn off the power immediately after using their computer or charging their mobile phone. And in the case of long light or flowing water, more than a tenth of the university students are still occasionally closed, nearly 1.5% of the university students ignore this. More than one-third of the university students have a poor practice of garbage classification.

The Contents and Strategies of Ecological Civilization Education

According to the pragmatic requirements of the construction and development of socialism with Chinese characteristics in the modern era, combined with the above survey results and the interview results of 12 teachers, the content and strategies of ecological civilization education for the university students in the new era are put forward.

According to Xi Jinping's important discourse concerning the establishment of ecological civilization, the content of ecological civilization education for the university students in the new era is formulated, which mainly includes the following eight aspects contents.

1. Education on the ecological and history view of “Ecological Prosperity, Civilization Prospers”.
2. Education on the ecological and natural view of “Human and nature coexist in harmony”.
3. Education on the ecological civilization development thought of “Lucid waters and lush mountains are invaluable assets”.
4. Education on the ecological and people's livelihood concept of “A sound ecological environment constitutes the most universal benefit to people's well-being”.
5. Education on the ecosystem view of “Mountains, rivers, forests, fields, lakes, grass and sand are a community of life”.
6. Education on the ecological rule of law view of “We will safeguard the ecological environment through the most stringent system and the most rigorous rule of law”.
7. Education on the ecological co-governance concept of “Strive to construct a beautiful China”.
8. Education on the ecological overall view of “We will collaborate to advance a worldwide ecological civilization”.

The effective strategies of ecological civilization education for the university students mainly include the following seven aspects.

1. Integrate the education on ecological civilization into the curriculum system of the university students' talent training.
2. Build a high-level teaching staff that can fulfill the demands of the university students' ecological civilization education.
3. Encourage students to actively engage in ecological civilization practice and experience teaching.
4. Strengthen the construction of educational resources for online and ecological civilization.
5. Build an ecological civilization education platform for multi-party cooperative and cooperative education.
6. Implement the Green Campus Action Plan.
7. Strengthen the organization and guarantee of ecological civilization education.

The Innovative Mechanism of Ecological Civilization Education in Qingdao Hengxing University

Using the relevant theory of ecosystem, a dynamic balance and open sharing innovation mechanism of the university students' ecological civilization family and university ecosystem are constructed. At the core of education in university, to build parents school, teachers, student community, university-enterprise cooperation platform, form the linkage support system, promote the new era of the university students 'ecological civilization education the comprehensive ecosystem dynamic balance, benign and sustainable development, realize the university students' ecological civilization education comprehensive, healthy and sustainable development.

Discussion

In the fourth chapter that talked about the current situation and the problems about the ecological civilization education among the university students, combined with the main conclusions of chapter 5, we find that the basic information variables such as grade, gender and major of the university students have different influences on ecological civilization education. Different majors have a significant

impact on the ecological civilization education of the university students. Different grades have roughly the same influence on the ecological civilization education of the university students. There is little difference between different genders on ecological civilization education among the university students. This study is consistent with the findings of Wang Jiaxun (2016) that "there is little difference in ecological civilization quality among different genders". Du Changjian (2014) proposed that the development of ecological civilization education must be based on the reality of the age, occupation and educational level of individual citizens, and formulate educational objectives and choose educational contents and methods according to their acceptance level and practical needs.

The research results are primarily manifest in the overall good sense of university students' identity with ecological civilization. Most students in the university can pay attention to the information related to ecological civilization education, and think that it is very necessary to carry out the courses about the them of ecological civilization in universities, and that ecological civilization is closely related to themselves, and they can correctly view the relationship between the human beings and the nature. The initiative of the university students to find relevant information and study needs to be further guided and improved. Wang Jiaxun (2016), his research results show that the network use mainly affects the practical level, and the network use affects the offline actions. Therefore, this research puts forward the strategy of strengthening the construction of online ecological civilization education resources, so as to give more guidance and help to the university students in ecological civilization knowledge acquisition and ecological civilization practice.

This research results show that there is still room for optimization of the content about the ecological civilization education in terms of curriculum system, especially in the teaching process of professional courses, the integration of ecological civilization related content is not enough. These findings are consistent with those of Chen Yan (2013), Yu Qiang (2013), Zhang Boqiang (2013), etc. Yang Mengfei (2022) also pointed out that many colleges and universities do not carry out the courses about the them of ecological civilization, and rarely integrate the content of the ecological civilization education into the teaching of relevant courses,

and the teaching methods are lack of innovation. Li Xia (2015) pointed out that colleges and universities should appropriately add public courses of ecological civilization education, reasonably arrange elective courses of ecological civilization education, and properly integrate the content of professional courses and ecological civilization education. Pei Yanli (2018) emphasized the establishment of the combination of compulsory courses and elective courses in ecological civilization concept education. This study puts forward an effective strategy to integrate the knowledge of ecological civilization education into the curriculum system of the university students' talent training.

The results show that universities, communities and families have given full play to the function of ecological civilization education, and the ecological civilization knowledge learned by the university students and the organization departments of ecological civilization activities participated in are among the top. The university students believe that school classroom education, community activities, education and activities carried out by social organizations are more effective ways of ecological civilization education. However, the school has conducted few academic reports and practical activities related to ecological civilization. The organization activities of the university students' ecological civilization associations are not sufficient. The students are not optimistic about the integration of knowledge and action in ecological civilization education. More than 70 percent of students still buy occasionally or often plastic bags when shopping in supermarkets. Only half of the university students turn off the power immediately after using their computer or charging their mobile phone. In the case of a long light or a long flowing water, more than a tenth of the university students are still occasionally closed, and nearly 1.5% of the university students ignore this. More than one-third of the university students have a poor practice of garbage classification. Liu Fang (2014) proposed that the university students lack responsibility for ecology and the cultivation of consumption concept. Li Xia (2015) proposed to cultivate the university students to establish a healthy consumption consciousness, guide the university students to correct the unhealthy consumption concept, choose to save life, and pay attention to saving water and electricity in the university students' daily life. Pei

Yanli (2018) also elaborated from the perspective of ecological consumption. Duan Yanfeng (2018) also stressed that the university students should be guided to consciously practice ecological civilization from the behavioral level. Cheng Yongjun (2019) pointed out that the knowledge of systematic ecological civilization is the foundation, and the good ecological civilization behavior is the pursuit. Yang Mengfei (2022) also proposed that ecological civilization education in colleges and universities does not combine social education and family education, and the linkage mechanism among the three parties has not been established. Therefore, this research puts forward the approach to constructing an ecological civilization educational platform for multi-party cooperative education, and uses the relevant theory of ecosystem to construct a dynamic balance and open sharing and innovation mechanism of the university students' ecological civilization educator.

Recommendations

To achieve the objectives of ecological civilization education and further improve the ecological civilization literacy of the university students in the modern new era, it is necessary to adapt to the evolving trends and developments of the new era, and constantly innovate the management mechanism for ecological civilization education among the university students in the modern new era.

Colleges and universities should enhance the construction of teachers so as to make them have a rich knowledge, accomplishment and ability of ecological civilization education, and provide sufficient teachers for the efficient development of ecological civilization education for the university students in the modern new era. Thus it is very necessary to vigorously cultivate talents specializing in the research of ecological civilization education, actively recruit teachers with sufficient level of ecological civilization education, a thorough understanding of ecological civilization and a high quality of ecological civilization, and establish a professional team for ecological civilization education for the university students in the modern new era.

A perfect evaluation system should be established to ensure the implementation outcomes and impact of ecological civilization education in the universities. By incorporating the supervisory function of the system and the incentive

effect of evaluation results, the objectives and demands of ecological civilization education can be achieved, leading to continual improvement and refinement of the ecological civilization education framework. Innovation in the evaluation system of ecological civilization education must be undertaken in conjunction with the prevailing circumstances, catering to the developmental requirements of ecological civilization education for university students in the contemporary new era.

Future Researches

As the ecological civilization education of the university students in the modern new era is a relatively in-depth topic, this research still needs to be improved due to the researcher own limited theoretical level and ability. Such as, how to integrate Xi Jinping's ecological civilization thought into the content of ecological civilization education of the students in the university in the modern new era? Whether the analysis of the existing problems and the causes of the current ecological civilization education in the university is comprehensive? And whether the countermeasure to strengthen the ecological civilization education of the university students in the modern new era is feasible? All of above mentioned questions need to be further explored. Additional exploration is essential to establish an evaluation system for assessing the implementation outcomes of ecological civilization education in universities. Whether the ecological civilization innovation mechanism of the university students in the modern new era can operate and develop healthily also needs to be tested in the practice.

In the future, the researcher will continue to conduct in-depth research, adhere to pioneering and innovate in the research of ecological civilization education for the university students in the modern new era, and make unremitting efforts to cultivate the builders of a beautiful China in the future, realize the Chinese dream in the great rejuvenation process of the great Chinese nation.

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Appendixes

Appendix A

List of Specialists and Letters of Specialists Invitation for IOC
Verification

List of Specialists for IOC Verification

1. Yang Shuzeng
Degree: Doctor of Philosophy
Position: Qingdao Hengxing University, Professor
2. Wang Kairong
Degree: Doctor of Education
Position: Qingdao Hengxing University, Professor
3. Jiangwei
Degree: Doctor of Education
Position: Qingdao Hengxing University, Professor

Appendix B
Official Letter



Ref.No. MHESI 0643.14/ 595

Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

3 July 2023

RE: Invitation to validate research instrument

Dear Professor Dr. Yang Shuzeng

Mrs. Kong Xiangli is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle “Ecological Civilization Education in Qingdao Hengxing University”

The thesis adversity committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research instrument.

With your expertise, we would like to ask your permission to validate the attached research instrument. Would like to avail ourselves of this opportunity to express our sincere thanks and appreciation for your help.

Sincerely,



(Assistant Professor Dr.Kanakorn Sawangcharoen)
Dean of Graduate School

Bansomdejchaopraya Rajabhat University
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www.bsru.ac.th
E-mail: grad@bsru.ac.th



Ref.No. MHESI0643.14/ 586

Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

3 July 2023

RE: Invitation to validate research instrument

Dear Professor Dr. Wang Kairong

Mrs. Kong Xiangli is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Ecological Civilization Education in Qingdao Hengxing University"

The thesis adversity committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research instrument.

With your expertise, we would like to ask your permission to validate the attached research instrument. Would like to avail ourselves of this opportunity to express our sincere thanks and appreciation for your help.

Sincerely,

(Assistant Professor Dr.Kanakorn Sawangcharoen)
Dean of Graduate School

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Ref.No. MHESI0643.14/ 567

Bansomdejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

3 July 2023

RE: Invitation to validate research instrument

Dear Professor Dr. Jiang Wei

Mrs. Kong Xiangli is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle “Ecological Civilization Education in Qingdao Hengxing University”

The thesis adversity committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research instrument.

With your expertise, we would like to ask your permission to validate the attached research instrument. Would like to avail ourselves of this opportunity to express our sincere thanks and appreciation for your help.

Sincerely,

(Assistant Professor Dr.Kanakorn Sawangcharoen)
Dean of Graduate School

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Appendix C
Research Instrument

Questionnaire
Survey Questionnaire on Ecological Civilization Education
in Qingdao Hengxing University

Dear friends, thank you very much for taking time out of your busy schedule to participate in our survey. The results of our questionnaire are analyzed only as the result data of this project research. The main purpose of the survey is to understand the situation of ecological civilization education in our school. Please fill it out carefully. Thank you for your cooperation!

Part 1: The basic information of the university students

1.1 Your grade is_____.

- A. Freshman
- B. Sophomore
- C. Junior
- D. Senior student

1.2 Your gender is_____.

- A. Male
- B. Female

1.3 Your major is_____.

- A. Science and Engineering
- B. Economics and Management
- C. Philosophy, Law, Literature, History
- D. Agriculture and Forestry
- E. Medicine
- F. Other

Part 2: The students' cognition of ecological civilization

2.1 Do you know the meaning of ecological civilization?

- A. Very well understood
- B. Better understanding

- C. Half-understood
- D. Only heard of it
- E. Never heard of it

Part 3: The students' sense of identity with ecological civilization

3.1 Do you take the initiative to pay attention to information about ecological civilization education?

- A. Yes
- B. No

3.2 Do you think it is necessary for colleges and universities to offer courses related to ecological civilization education.

- A. Very necessary
- B. Can open can not open
- C. There's no need.

3.3 What do you think is the importance of protecting the ecological environment?

- A. Not important
- B. More important
- C. Very important

3.4 What do you think is the relationship between ecological civilization and yourself?

- A. Close relationship
- B. Some relationship
- C. No relationship

3.5 Which expression do you think is more appropriate for the relationship between humans and nature?

- A. Man can overcome nature
- B. Humans can transform nature
- C. Human behavior is governed by nature
- D. Human survival depends on nature
- E. Harmony between man and nature

3.6 How do you pay attention to the information about ecological civilization?

- A. Internet media
- B. The Press
- C. A lecture or Class Report
- D. Self-access
- E. Other

3.7 What are the organizations that have organized and promoted the ecological civilization knowledge you have learned so far or the ecological civilization activities you have participated in?

- A. Family
- B. Community
- C. University
- D. Club
- E. Social Organizations
- F. Government Departments
- G. Scientific Research Institutions
- H. Other

3.8 What do you think are the effective ways to carry out ecological civilization education for the students in the university?

- A. Classroom Teaching
- B. Club Activities
- C. Education and activities carried out by social organizations
- D. Other

Part 4: The ecological civilization education in the university and the education atmosphere in family and community

4.1 Are there any courses related to ecological civilization in the public basic courses of your university?

- A. Yes
- B. No

4.2 Ecological civilization of the curriculum, whether included in the personnel training program in your college?

- A. Yes
- B. No.
- C. I don't know.

4.3 Do you have any public elective course on ecological civilization education in your university?

- A. Yes
- B. No

4.4 Is there any elective course on ecological civilization in your college?

- A. Yes
- B. No

4.5 Are there any academic lectures or presentations on ecological civilization education?

- A. No
- B. Once or twice a year
- C. Three to five times a year
- D. 6 times or more per year

4.6 Are there any club on ecological civilization in your university?

- A. Yes
- B. No

4.7 Are there any practical activities on ecological civilization education in your university?

- A. No
- B. Once or twice a year
- C. Three to five times a year
- D. 6 times or more per year

4.8 Have you been exposed to education related to ecological civilization in your family?

- A. Yes
- B. No

4.9 Is there awareness and education about ecological civilization in the community you live in?

- A. Yes
- B. No

Part 5: The students' practice of ecological civilization in their daily life and study

5.1 What are your habits in terms of food, clothing, housing and transportation in your daily life?

- A. Pursuit of high quality and high consumption
- B. General, no intentional how to do
- C. Green, low-carbon, frugal

5.2 Do you buy plastic bags from the supermarket when you shop at the supermarket?

- A. No
- B. Occasionally
- C. Often

5.3 Will you immediately cut off the power plug after using the computer or cell phone after charging?

- A. No
- B. Occasionally
- C. Often

5.4 What do you usually do when you encounter a long light or long running water?

- A. Ignore
- B. Occasionally turn off
- C. Turn off immediately

5.5 Do you usually separate your garbage?

- A. No
- B. Occasionally
- C. Often

5.6 Do you promote ecological civilization to others?

A. Not done

B. Sometimes do this

C. Do this often

Part 6: Open Questions

6.1 What suggestions do you have for the students to carry out ecological civilization education in the university?

6.2 What do you think are the key aspects of ecological civilization construction in Qingdao?

This is the end of the questionnaire. Thank you again for your participation and wish you all the best!

Interview Questions about Ecological Civilization Education in Qingdao Hengxing University

Dear professors and teachers, thank you very much for taking time out of your busy schedule to participate in our interview. The results of our interview are analyzed only as the result data of this project research. The main purpose of the interview is to understand the situation of ecological civilization education in our university. I hope you can put forward valuable opinions and suggestions on the content and strategy of ecological civilization education in our university. Thank you for your cooperation!

1. What do you think of the situation of ecological civilization education in our university?
2. As a teacher (or manager), do you integrate ecological civilization education into the class process (or daily management process)? Please illustrate how to integrate?
3. What do you think are the main restricting factors for the ecological civilization education in our university?
4. What do you think should be the main contents of ecological civilization education in our university?
5. What educational functions and roles do the university, family and community play in ecological civilization education for the university students? How to help the university students to acquire more knowledge of ecological civilization, improve their practical ability of ecological civilization, and better practice ecological civilization in their daily study and life?
6. What suggestions do you have on setting up the curriculum system of ecological civilization education for the university students?

7. Among the social organizations and scientific research institutions you know, which can provide resources and places for ecological civilization education, please give some example.

8. What else can the university make efforts to promote ecological civilization education for the university students?

This is the end of the interview. Thank you again for your participation and wish you all the best!

The Results of the Interview

Interviewee 1

Question 1: What do you think of the situation of ecological civilization education in our university?

I appreciate the steps our university has taken to integrate ecological civilization education. However, there's a need to ensure it's not just an isolated topic, but rather woven into the fabric of our educational approach. The interconnectedness of ecological systems is a critical lesson that transcends disciplines. By further promoting interdisciplinary dialogues and engaging students beyond the classroom, we can enhance the impact of ecological education.

Question 2: As a teacher (or manager), do you integrate ecological civilization education into the class process (or daily management process)? Please illustrate how to integrate?

Absolutely, in my courses, I make it a point to highlight ecological perspectives relevant to the subject matter. For example, in literature classes, we explore eco-literature that emphasizes humanity's relationship with nature. Additionally, I advocate for eco-friendly classroom practices like reducing paper usage and encouraging discussions about sustainable practices. As a manager, I ensure that our department's operations align with eco-friendly practices, from paperless communication to recycling initiatives.

Question 3: What do you think are the main restricting factors for the ecological civilization education in our university?

One potential restriction is the challenge of making ecological concepts relatable across diverse disciplines. It's crucial to bridge the gap between theory and practical application. Faculty development in integrating ecological perspectives into their courses is also vital. Moreover, a lack of awareness among students about the importance of ecological education could hinder its broader acceptance.

Question 4: What do you think should be the main contents of ecological civilization education in our university?

Ecological civilization education should encompass a variety of subjects. It should cover ecological principles, sustainable practices, environmental ethics, cultural dimensions of ecology, and real-world case studies. Fostering critical thinking about the impact of human actions on the environment and encouraging personal responsibility towards ecological sustainability should be integral.

Question 5: What educational functions and roles do the university, family and community play in ecological civilization education for college students? How to help college students to acquire more knowledge of ecological civilization, improve their practical ability of ecological civilization, and better practice ecological civilization in their daily study and life?

The university provides structured knowledge and critical thinking skills. Families contribute by instilling environmental values. Communities offer experiential learning through local projects and connections. To enhance students' practical ability, field trips to ecologically significant areas, community service initiatives, and collaborations with local environmental organizations can provide hands-on experiences.

Question 6: What suggestions do you have on setting up the curriculum system of ecological civilization education for college students?

Establish an "Ecological Literacy" core course for all students, regardless of major, that introduces fundamental ecological concepts. Collaborate with faculty across disciplines to integrate ecological perspectives into existing courses. Offer interdisciplinary workshops that explore ecological dimensions relevant to each major, fostering holistic understanding.

Question 7: Among the social organizations and scientific research institutions you know, which can provide resources and places for ecological civilization education?

"The Ecological Awareness Society" offers educational materials and hosts seminars on ecological issues. "The Research Institute for Sustainable Futures" provides research papers on sustainable practices. Both organizations could serve as guest speakers and collaborators for our ecological education efforts.

Question 8: What else can the university make efforts to promote ecological civilization education for college students?

Host an annual "Eco-Week" with lectures, workshops, and hands-on activities that focus on ecological education. Establish a student-led "Green Campus Committee" that spearheads eco-friendly initiatives on campus. Collaborate with local schools for joint projects that encourage ecological awareness among younger students.

Interviewee 2

Question 1: What do you think of the situation of ecological civilization education in our university?

As an educator, I recognize the importance of ecological civilization education, especially in alignment with Xi Jinping's vision for a harmonious coexistence between humanity and nature. Our university has made commendable efforts in introducing ecological concepts, but there's a potential to deepen its integration. Xi Jinping's discourse emphasizes the need for ecological awareness to become a way of thinking and a way of life. Thus, we should continue refining our curriculum to ensure ecological principles are seamlessly woven into every subject, fostering a generation of environmentally conscious citizens. While certain departments have embraced it, there's an opportunity to create a more cohesive and comprehensive approach across all disciplines. Strengthening the collaboration between various departments and ensuring that ecological principles are part of the core curriculum can lead to a more holistic education.

Question 2: As a teacher (or manager), do you integrate ecological civilization education into the class process (or daily management process)? Please illustrate how to integrate?

Education itself is an ecosystem, and civilized education implements all aspects of education. However, their respective levels are different, the low section is mainly civilized and polite, the middle section is mainly social development, and the high end is mainly emotional experience. I view integrating ecological civilization education as a duty. In my classes, I incorporate examples from Xi Jinping's discourse

that highlight the significance of ecological harmony. For instance, in history classes, we analyze historical instances of environmental stewardship. Additionally, as a manager, I emphasize resource conservation and eco-friendly practices. This could involve energy-efficient operations, reducing paper waste, and promoting sustainable commuting options among colleagues.

Question 3: What do you think are the main restricting factors for the ecological civilization education in our university?

One factor might be the perception that ecological education is solely related to specific disciplines. Overcoming this misconception requires highlighting the interdisciplinary nature of ecological civilization and its relevance in all fields. Furthermore, the shortage of faculty with expertise in ecological matters could limit our ability to deliver comprehensive education. Therefore, investing in professional development opportunities for educators in ecological topics is essential. The level of teachers is the most critical factor.

Question 4: What do you think should be the main contents of ecological civilization education in our university?

I think the main content should include three aspects: good habits, social development and noble emotional experience. Moreover Xi Jinping's discourse provides a roadmap for the main contents of ecological civilization education. These include understanding the interconnectedness of ecosystems, fostering an ecological consciousness, practicing sustainable development, promoting green technology and innovation, and cultivating a sense of responsibility for ecological protection. It's crucial to emphasize Xi Jinping's call for a holistic approach that considers economic, social, and environmental aspects.

Question 5: What educational functions and roles do the university, family and community play in ecological civilization education for college students? How to help college students to acquire more knowledge of ecological civilization, improve their practical ability of ecological civilization, and better practice ecological civilization in their daily study and life?

Students are the main body and the internal cause, while the university and family are the object and the external cause. The university imparts knowledge and

critical thinking skills. Families instill values of environmental stewardship and ethical behavior. Communities offer real-world context and engagement opportunities. To enhance students' practical ability, the university can offer field courses in ecologically significant areas. Families can participate in community clean-up events, and the community can host seminars on sustainable living. Additionally, interdisciplinary projects that involve families and community members could foster holistic ecological education.

Question 6: What suggestions do you have on setting up the curriculum system of ecological civilization education for college students?

Establish an "Ecological Citizenship" core course that draws from Xi Jinping's discourse, focusing on principles of ecological harmony, responsibility, and sustainability. Collaborate with faculty from various disciplines to integrate ecological concepts into existing courses. Promote project-based learning where students address local ecological challenges, fostering a sense of agency and civic responsibility.

Question 7: Among the social organizations and scientific research institutions you know, which can provide resources and places for ecological civilization education?

"The Green Earth Foundation" offers educational materials on ecological preservation. "The Ecological Research Institute" provides research on sustainable practices. Both museum and exhibition hall could offer workshops and research opportunities for students based on Xi Jinping's ecological vision.

Question 8: What else can the university make efforts to promote ecological civilization education for college students?

Host an annual "Ecological Summit" that brings together scholars, practitioners, and students to discuss ecological challenges and solutions. Create an "Eco-Innovation Hub" where students can collaborate on projects aligned with Xi Jinping's discourse. Develop partnerships with local schools for joint ecological education programs that involve students, families, and community members. In short, ecological civilization education should be introduced into textbooks, classrooms and into a daily life.

Interviewee 3**Question 1: What do you think of the situation of ecological civilization education in our university?**

We should earnestly carry out the relevant documents of ecological civilization construction, and the university attaches great importance to the propaganda of popular science knowledge of ecological civilization construction among teachers and students. Drawing from Xi Jinping's discourse, our university has made commendable efforts in ecological civilization education. However, there is still a need to ensure that this education permeates every level and discipline, fostering a deep understanding of the harmonious coexistence between humans and nature. We should align our efforts with Xi Jinping's emphasis on ecological awareness, environmental protection, and sustainable development to prepare students for their roles as responsible global citizens.

Question 2: As a teacher (or manager), do you integrate ecological civilization education into the class process (or daily management process)? Please illustrate how to integrate?

I integrate ecological civilization education through every aspect of my role. In my classes, I infuse discussions on Xi Jinping's principles of ecological harmony and environmental stewardship into the curriculum. For example, in the explanation of the structure and function of the digestive system, the formation and significance of the food chain, so as to raise concerns about environmental pollution. As a manager, I advocate for resource-efficient processes, from paperless communication to energy conservation, setting an example for ecological responsibility.

Question 3: What do you think are the main restricting factors for the ecological civilization education in our university?

One key factor might be the perception that ecological education is a standalone topic, rather than an integrated principle. To address this, we must integrate ecological perspectives into various subjects, aligning with Xi Jinping's call for interdisciplinary education that transcends traditional boundaries. Additionally, a lack of faculty training in ecological principles might hinder their effective integration into courses.

Question 4: What do you think should be the main contents of ecological civilization education in our university?

We must foster the concept of ecological civilization of respecting, conforming to and protecting nature. " We must strive to form the concept of harmony between man and nature. Ecological civilization education should encompass Xi Jinping's vision of a harmonious relationship between humans and nature. It should cover ecological principles, sustainable development strategies, environmental ethics, and the role of individuals in fostering ecological balance. Emphasizing values such as environmental protection, resource conservation, and balanced growth should be central to the curriculum.

Question 5: What educational functions and roles do the university, family and community play in ecological civilization education for college students? How to help college students to acquire more knowledge of ecological civilization, improve their practical ability of ecological civilization, and better practice ecological civilization in their daily study and life?

The university imparts knowledge and critical thinking skills through curriculum design. Families play a role by instilling ecological values and ethics at home. Communities offer experiential learning through engagement in local environmental initiatives. To enhance students' knowledge, offer interdisciplinary seminars that connect ecological principles to real-world challenges. Encourage community service projects that allow students to practically apply their knowledge. Specifically, scientific knowledge should be popularized in daily life. For example, garbage sorting, diet matching, and so on.

Question 6: What suggestions do you have on setting up the curriculum system of ecological civilization education for college students?

Ecological civilization education should be integrated into the curriculum system with the mode of ideological and political courses, and alarm bells ringing. Create an interdisciplinary core course on "Ecological Civilization and Sustainable Development" that introduces Xi Jinping's principles. Collaborate with faculties to integrate these principles into existing courses. Establish a student-led "Green

Campus Initiative" that organizes eco-awareness campaigns, workshops, and projects in line with Xi Jinping's discourse.

Question 7: Among the social organizations and scientific research institutions you know, which can provide resources and places for ecological civilization education?

The "Ecological Awareness Foundation" offers educational resources and workshops aligned with Xi Jinping's vision. The "Center for Ecological Studies" conducts research on ecological sustainability. Museum, marine life museum, geological museum and so on are very good education places. These organizations can contribute through guest lectures, seminars, and collaborative projects.

Question 8: What else can the university make efforts to promote ecological civilization education for college students?

Initiate an annual "Ecological Civilization Forum" where experts discuss the implementation of Xi Jinping's ecological principles. Establish an "Ecological Research Center" that fosters interdisciplinary research. Collaborate with local schools to organize ecological education events that engage younger students and their families. Further implementation is crucial.

Interviewee 4

Question 1: What do you think of the situation of ecological civilization education in our university?

The university has set up the labor class, and the Chinese traditional culture course has a certain integration. As an educator, I find that our university's emphasis on ecological civilization education is aligned with President Xi Jinping's vision of promoting sustainable development and ecological harmony. However, there's room for further integration and depth. President Xi's discourse stresses the importance of ecological awareness and responsibility. We can enhance this by not just introducing ecological concepts as a subject, but by infusing them throughout the curriculum, emphasizing their relevance to various disciplines and fostering a deeper sense of ecological citizenship.

Question 2: As a teacher (or manager), do you integrate ecological civilization education into the class process (or daily management process)? Please illustrate how to integrate?

The traditional culture course of the spirit of the unity of man and nature, please introduce their hometown, cultivate students to love the motherland, love the hometown of the great rivers and mountains of consciousness and feelings. I integrate ecological civilization education into my classes by discussing Xi Jinping's discourse and its implications. For instance, in a physics ethics class, we explore how ecological responsibility aligns with ethical decision-making. In my role as a manager, I advocate for eco-friendly practices within the department, such as reducing paper usage and promoting energy efficiency, aligning with President Xi's call for sustainable development.

Question 3: What do you think are the main restricting factors for the ecological civilization education in our university?

At present, the time and space of ecological civilization education in the university is still relatively limited and closed, which is book-based and classroom teaching. This not only imprisons students' physical activity, limits their natural vision and opportunities to feel nature, but also weakens their ability to perceive nature, making them gradually lose their sense of belonging to nature in the lack of natural experience of education. The teaching environment is relatively far away from the nature, and the ecological civilization education has not been effectively carried out in the time and space of the natural ecological environment. Students are more limited to the closed classroom, through text, images, video and other media to feel the natural insects fish, birds and animals and sunshine, not close contact with nature, students are difficult to get the sensory experience of nature and direct feeling of ecological practice, is not conducive to students to establish real contact with nature. One challenge might be shifting mindsets from a purely economic growth-oriented perspective to one that values ecological balance. Overcoming this requires highlighting the economic benefits of sustainable practices and demonstrating how they align with Xi Jinping's vision of balanced development.

Additionally, faculty development is crucial to ensure that educators are well-equipped to integrate ecological themes into their courses effectively.

Question 4: What do you think should be the main contents of ecological civilization education in our university?

Ecological civilization education should encompass understanding the interconnectedness of nature, promoting sustainable practices, and fostering a sense of ecological responsibility. Aligning with President Xi's discourse, the curriculum should emphasize the importance of harmonious coexistence between humanity and nature, ethical considerations in development, and practical approaches to mitigating ecological challenges. Specifically, the ecological civilization education process needs to pay attention to the social development of the actual requirements of ecological civilization construction, such as the social development of biodiversity, water resources, land resources dried up, to help students to realize the importance and urgency of ecological civilization construction, subtly promote students' promotion of ecological civilization accomplishment. In addition, as the main path to spread socialist ideology, ecological civilization education should keep pace with The Times. Teachers, students and other subjects absorb more new viewpoints to realize the deep combination of ecological civilization education and professional course teaching. Ecological learning combines ecological exploration with labor education to create an atmosphere of ecological civilization education. We can use the campus outdoor green space to open up plantations, so that students can experience planting fragrant grass in the plantation, learn more about fragrant plants, and make the preserved fragrant grass into related products, so as to give full play to the effect of discipline education and environmental education. Actively create "clear your plate" campaign, due to the waste of lunch, allow the students to design experiments, explore the factors affecting food waste, and set up the "love food corner" in the canteen to urge teachers and students to love the most common paper waste in teachers and students, set the draft paper recycling bar in each class, sample the utilization rate of draft paper and make recycled paper, so as to arouse the ecological concept of sustainable development of students and promote the construction of "waste-free campus". In addition, students can be

organized to conduct independent research in off-campus venues to experience the importance of ecological civilization.

Question 5: What educational functions and roles do the university, family and community play in ecological civilization education for college students? How to help college students to acquire more knowledge of ecological civilization, improve their practical ability of ecological civilization, and better practice ecological civilization in their daily study and life?

Families, universities and communities form a joint force to improve their ecological practice ability through various forms of activities. The university imparts knowledge, critical thinking skills, and President Xi's vision of ecological civilization. Families play a role by instilling values of ecological responsibility and conservation. Communities provide experiential learning through engagement in local ecological projects. To enhance students' practical ability, we can organize workshops, collaborate with local communities on eco-projects, and foster internships that align with President Xi's ecological vision.

Question 6: What suggestions do you have on setting up the curriculum system of ecological civilization education for college students?

Pay attention to the systematization of ecological civilization education courses, and pay attention to the integration of ecological civilization education in professional courses. It can be more closely combined with the ideological and politics of the course. Establish a core course on "Ecological Citizenship" that explores President Xi's discourse, its historical context, and its relevance across disciplines. Collaborate with different faculties to integrate ecological themes into various courses, encouraging cross-disciplinary understanding. Engage students in projects that address local ecological challenges, promoting practical application of President Xi's principles.

Question 7: Among the social organizations and scientific research institutions you know, which can provide resources and places for ecological civilization education?

"Green Harmony Foundation" conducts environmental workshops and offers resources on ecological education. "Sustainable Futures Research Institute" publishes

research on sustainable development. Ocean museum, botanical garden, Expo Garden, zoo, all of the organizations can be valuable partners in aligning educational efforts with President Xi's discourse.

Question 8: What else can the university make efforts to promote ecological civilization education for college students?

We will carry out ecological and cultural development activities. Host an annual "Ecological Civilization Forum" where students, faculty, and experts discuss and exchange ideas on ecological issues. Establish an "Eco-Campus Committee" that oversees campus sustainability projects. Collaborate with local schools to organize joint environmental projects, promoting a sense of ecological citizenship from a young age. First, we should do a good job of popularizing ecological knowledge among college students. We should use campus publicity, network service, classroom teaching, social practice, party and league activities and other forms, to carry out various vivid and specific ecological knowledge popularization activities, so that college students can learn professional knowledge, learn about ecological knowledge, understand the law of ecological development, and improve their cognition of ecological development. Second, make full use of the advantages of scientific research in universities to create an advanced ecological culture. To organize relevant researchers and teachers to strengthen the research issues related to ecological civilization, or from the perspective of ecological development of science and technology innovation, and the results of feedback society, directly or indirectly promote the process of ecological civilization, make college students can not only directly share the research results of ecological civilization, and make them feel the social identity of ecological culture, is conducive to the formation of ecological civilization. Third, to build a good ecological civilization environment in the university. From the point of view of ecological system, a university is an ecological subsystem, establish mutual respect of human relations in the university, love the good tradition of cherish grass, edify humanistic spirit of campus landscape, form a good atmosphere and moral education environment, for college students, this itself is a good moral education.

Interviewee 5

Question 1: What do you think of the situation of ecological civilization education in our university?

The current situation of ecological civilization education in our university is good, and relevant contents are often interspersed in the course. From my perspective, the ecological civilization education in our university is evolving, but there is still room for growth. While there are pockets of integration across departments, a more comprehensive and interdisciplinary approach could be beneficial. Strengthening partnerships between different faculties to foster a holistic understanding of ecological concepts can enhance the impact of this education on our students' overall worldview.

Question 2: As a teacher (or manager), do you integrate ecological civilization education into the class process (or daily management process)? Please illustrate how to integrate?

I often integrate into ecological civilization education. For example, when talking about the "two centenary Goals", the importance of ecological civilization and ecological civilization is a part of the "civilization" will be integrated into the teaching process. Certainly, as a teacher, I incorporate ecological principles into my lectures. I also encourage open discussions on ecological issues during class, fostering critical thinking and diverse perspectives.

Question 3: What do you think are the main restricting factors for the ecological civilization education in our university?

Our university carries out the ecological civilization situation is relatively good, the university leaders attach great importance to, there is basically no restriction factors. One potential factor is the lack of a centralized framework that guides the integration of ecological education across all disciplines. This might result in inconsistent approaches and varying levels of emphasis. Additionally, limited resources for faculty development and a lack of clear communication channels for interdisciplinary collaboration could be hindering progress.

Question 4: What do you think should be the main contents of ecological civilization education in our university?

The main contents should include ecological principles, sustainable development, environmental ethics, and the socio-economic impacts of ecological choices. Additionally, exploring global ecological challenges and their interconnectedness with social and economic systems is crucial. Practical skills like waste reduction, energy conservation, and responsible consumption should also be emphasized. In our daily life, we should adhere to the green and low-carbon life, green travel, green production models, and strengthen the protection of the natural ecology.

Question 5: What educational functions and roles do the university, family and community play in ecological civilization education for college students? How to help college students to acquire more knowledge of ecological civilization, improve their practical ability of ecological civilization, and better practice ecological civilization in their daily study and life?

The university imparts knowledge and critical thinking skills. Families shape values and ethics related to the environment. The community provides real-world contexts for ecological challenges. To enhance students' knowledge, interdisciplinary seminars can be organized to encourage holistic understanding. Encourage community engagement through volunteering and participation in local sustainability initiatives to develop practical skills and instill a sense of responsibility. Our university attaches great importance to the education of concept and theory, and should set a good example from the family, and the community should do a good job of publicity, so that students can carry out the practice of ecological civilization construction in the community. Knowledge of ecological civilization can be popularized from special reports, lectures, knowledge contests, essay essays and publicity boards.

Question 6: What suggestions do you have on setting up the curriculum system of ecological civilization education for college students?

At present, general universities do not offer separate courses related to ecological civilization education, so it is suggested that the content related to ecological civilization construction should be integrated into the learning process of various disciplines and majors, which as part of the ideological and political content of the course is the most ideal result. Introduce a foundational course on ecological

civilization that provides an overview of ecological principles and their implications. Offer interdisciplinary electives that delve deeper into specific ecological topics, encouraging students to explore beyond their major. Collaborate with faculty from different departments to ensure a well-rounded curriculum that emphasizes the interconnectedness of ecological issues.

Question 7: Among the social organizations and scientific research institutions you know, which can provide resources and places for ecological civilization education?

"Green Earth Foundation" conducts workshops and seminars on ecological conservation. "Sustainability Research Institute" offers research publications on sustainable practices. Zoos, botanical gardens, wetland parks, museums, ecological civilization education bases, and environmental protection bureaus, water quality testing centers can allow students to visit frequently. These organizations could provide guest speakers, workshops, and research materials for students.

Question 8: What else can the university make efforts to promote ecological civilization education for college students?

The university creates a good atmosphere; holds various activities; pays attention to the construction of college civilization. Organize an annual "Ecological Awareness Week" that includes seminars, workshops, and hands-on activities focused on ecological issues. Establish a student-led Eco-Club that organizes community service projects related to environmental conservation. Collaborate with local businesses to provide internships with a focus on sustainable practices.

Interviewee 6

Question 1: What do you think of the situation of ecological civilization education in our university?

As a university teacher, I see our university making commendable strides in integrating ecological civilization education. However, there's a potential for further enhancement. While some departments have embraced this education, its interdisciplinary nature calls for greater collaboration. By fostering a comprehensive approach that spans various disciplines, we can better equip students to understand the intricacies of ecological challenges and solutions.

Question 2: As a teacher (or manager), do you integrate ecological civilization education into the class process (or daily management process)? Please illustrate how to integrate?

Indeed, I actively integrate ecological civilization education into my teaching approach. For instance, in my classes, I incorporate case studies that highlight how ecological considerations impact real-world scenarios. When teaching business ethics, I highlight Xi's call for responsible corporate behavior. When discussing management practices, I emphasize the importance of sustainable decision-making and ethical responsibility, helping students understand how ecological awareness can shape their future roles.

Question 3: What do you think are the main restricting factors for the ecological civilization education in our university?

One prominent factor could be the challenge of aligning varying perspectives on ecological concepts across departments. Addressing this requires cross-disciplinary dialogue and collaborative initiatives. Additionally, limited faculty training on integrating ecological aspects into their teaching might hinder its seamless incorporation. Comprehensive promotion of garbage classification may be a more difficult project.

Question 4: What do you think should be the main contents of ecological civilization education in our university?

Ecological civilization education should cover a comprehensive range of subjects. This includes ecological principles, sustainable development, environmental ethics, the impact of human activities on ecosystems, and innovative solutions for ecological challenges. Discussions on the socio-economic dimensions of ecological decisions are also crucial to preparing well-rounded graduates.

Question 5: What educational functions and roles do the university, family and community play in ecological civilization education for college students? How to help college students to acquire more knowledge of ecological civilization, improve their practical ability of ecological civilization, and better practice ecological civilization in their daily study and life?

The university imparts foundational knowledge and critical thinking skills. Families instill values and ethics that influence students' ecological attitudes. Communities offer practical exposure through local initiatives. To deepen knowledge, the university can offer interdisciplinary seminars, workshops, and field experiences. Encourage family involvement through discussions on ecological ethics. Partner with community organizations for hands-on projects that address local ecological issues.

Question 6: What suggestions do you have on setting up the curriculum system of ecological civilization education for college students?

Establish an interdisciplinary core course that introduces foundational ecological concepts applicable to various disciplines. Create elective courses that delve deeper into specialized ecological areas. Integrate practical experiences like field trips, internships, and service-learning projects to allow students to engage directly with ecological issues.

Question 7: Among the social organizations and scientific research institutions you know, which can provide resources and places for ecological civilization education?

"Ecology Learning Network" offers a repository of educational materials for students and educators alike. "Green Innovators Club" provides a platform for students to collaborate on ecological projects and initiatives. Both organizations can offer valuable resources and networking opportunities.

Question 8: What else can the university make efforts to promote ecological civilization education for college students?

Organize an annual "Ecological Awareness Week" that features workshops, seminars, and interactive events. Collaborate with local schools to introduce ecological education in the curriculum. Establish a student-led "Ecological Solutions Forum" where students can present their innovative ideas for addressing ecological challenges.

Interviewee 7

Question 1: What do you think of the situation of ecological civilization education in our university?

As an education professor, I appreciate the strides our university has taken in integrating ecological civilization education. However, there's an opportunity to expand its reach. The incorporation of ecological concepts into education is crucial for producing socially responsible graduates. By nurturing a holistic understanding of ecological principles across disciplines, we can better equip our students to address the complex environmental challenges of today's world.

Question 2: As a teacher (or manager), do you integrate ecological civilization education into the class process (or daily management process)? Please illustrate how to integrate?

I emphasize the importance of incorporating ecological literacy into teaching methods. For instance, when discussing experiential learning, I encourage students to take students outdoors for nature-based lessons. Additionally, I advocate for eco-friendly classroom practices, such as reducing paper usage and promoting waste reduction, setting an example for future educators. When it comes to the content of ecological civilization, I will pay attention to education and guide students to implement it well in practice.

Question 3: What do you think are the main restricting factors for the ecological civilization education in our university?

A key restriction might be the perception that ecological education is confined to environmental science, rather than being applicable across subjects. Addressing this misconception and demonstrating how ecological principles can be integrated into various disciplines is crucial. Moreover, limited professional development opportunities for educators to effectively teach ecological concepts might hinder progress. The general awareness, social environment and atmosphere will affect the ecological civilization education of the university.

Question 4: What do you think should be the main contents of ecological civilization education in our university?

Ecological civilization education should cover a range of topics. It should encompass understanding the interconnectedness of ecosystems, ethical considerations in ecological decision-making, sustainable living practices, and the role of education in shaping environmentally responsible citizens. Additionally, fostering a

sense of environmental stewardship and promoting community involvement should be central. The sense of globalization, the relationship between man and nature, ecological civilization is everyone's responsibility, starting from me, professional related knowledge and so on, can be used as the content of ecological civilization education.

Question 5: What educational functions and roles do the university, family and community play in ecological civilization education for college students? How to help college students to acquire more knowledge of ecological civilization, improve their practical ability of ecological civilization, and better practice ecological civilization in their daily study and life?

The university imparts foundational knowledge and pedagogical skills to future educators. Families play a role in nurturing environmental values and ethics. Communities provide real-world context and engagement opportunities. To enhance students' knowledge, provide interdisciplinary seminars that connect ecological concepts with their respective disciplines. Encourage community service projects that allow students to apply ecological principles practically. In short, the university should carry out regular education, families should form consensus and conscious actions, the society should create an environment, and the government should formulate policies to form a unified whole, coordinate with each other, and educate the students together.

Question 6: What suggestions do you have on setting up the curriculum system of ecological civilization education for college students?

We should increase the specialized courses and elective courses related to ecological civilization, and carry out the course of ecological civilization education like the ideological and political courses. Develop a "Ecological Education and Pedagogy" course for education majors that delves into effective methods of teaching ecological concepts. Introduce an interdisciplinary capstone project where students design and implement environmental education programs in local schools. Collaborate with other departments to offer nature-based learning experiences for all students.

Question 7: Among the social organizations and scientific research institutions you know, which can provide resources and places for ecological civilization education?

Ecological civilization involves all aspects. All kinds of organizations and institutions have the requirements and work contents of ecological civilization, whether it is production, construction, service, management, research and other types of units. "Environmental Education Network" offers teaching resources, lesson plans, and workshops for educators. "Nature Explorers Club" organizes outdoor activities that promote ecological awareness among children. These organizations can provide students with valuable tools for effective ecological education.

Question 8: What else can the university make efforts to promote ecological civilization education for college students?

We should pay attention to the second classroom and social practice, pay attention to the establishment of college students' consciousness, habit formation and action consciousness. Establish an "Environmental Education Resource Center" on campus, equipped with books, teaching materials, and technology for educators to access. Host an annual "Eco-Education Symposium" where educators and experts share innovative teaching methods. Collaborate with local schools for student teaching placements that prioritize ecological education.

Interviewee 8

Question 1: What do you think of the situation of ecological civilization education in our university?

In the context of Xi Jinping's discourse on ecological civilization, our university's efforts in ecological civilization education align well with the national vision. However, there's room for enhancement. President Xi emphasizes that ecological education should be comprehensive and interwoven into all aspects of education. While progress has been made, we can further integrate ecological principles across disciplines and emphasize the moral and ethical dimensions of ecological responsibility, instilling a deep sense of stewardship among students.

Question 2: As a teacher (or manager), do you integrate ecological civilization education into the class process (or daily management process)? Please illustrate how to integrate?

Certainly, I believe in implementing ecological civilization education not only within specific courses but also in the broader educational environment. In my classes, I emphasize President Xi's call for harmonious coexistence between humanity and nature. I pay attention to the selection of teaching content and the integration of design thinking. For example, in literature classes, we analyze works that highlight the human-nature relationship. Additionally, as a manager, I advocate for sustainable practices within our department, from energy conservation to waste reduction, setting an example for both faculty and students.

Question 3: What do you think are the main restricting factors for the ecological civilization education in our university?

One of the main restricting factors could be compartmentalization of ecological education within certain disciplines. President Xi emphasizes the integration of ecological principles throughout education. Overcoming disciplinary boundaries and fostering interdisciplinary collaboration is essential. Additionally, a lack of awareness about the urgency of ecological challenges and insufficient professional development opportunities for faculty could limit the effectiveness of ecological education. Teacher-student acceptance is also an aspect that needs to be considered.

Question 4: What do you think should be the main contents of ecological civilization education in our university?

Following President Xi's discourse, ecological civilization education should include understanding ecological principles, recognizing the value of ecological conservation, ethical considerations in human-nature interaction, and promoting sustainable practices. The concept of "Lucid waters and lush mountains are invaluable assets" should be a central theme, highlighting the interconnectedness of ecological health and human well-being.

Question 5: What educational functions and roles do the university, family and community play in ecological civilization education for college students? How

to help college students to acquire more knowledge of ecological civilization, improve their practical ability of ecological civilization, and better practice ecological civilization in their daily study and life?

The university imparts knowledge and nurtures critical thinking. Families instill values and ethics, echoing President Xi's emphasis on ecological ethics and morality. Communities provide real-world context and experiential learning opportunities. To enhance students' practical ability, field trips to ecological reserves, involvement in local conservation projects, and engaging with eco-conscious community organizations can be integrated.

Question 6: What suggestions do you have on setting up the curriculum system of ecological civilization education for college students?

Design an interdisciplinary "Ecological Civilization and Ethics" course that delves into President Xi's vision of harmonious coexistence. Collaborate with various departments to incorporate ecological perspectives into existing courses, from science to humanities. Consider a capstone project where students design ecological solutions for real-world challenges, aligning with President Xi's call for concrete actions in ecological conservation.

Question 7: Among the social organizations and scientific research institutions you know, which can provide resources and places for ecological civilization education?

The "Green Earth Foundation" offers educational resources on ecological conservation and organizes seminars. "EcoExplorers Club" provides hands-on experiences for students to engage with local ecosystems. Communities, farms, etc, all of organizations can offer field trips, workshops, and opportunities for students to practice ecological principles.

Question 8: What else can the university make efforts to promote ecological civilization education for college students?

Host an annual "Ecological Forum" where experts discuss interdisciplinary ecological challenges and solutions. Establish a "Green Campus Initiative" that focuses on sustainable practices and encourages student involvement. Collaborate with local schools to organize joint ecological projects, aligning with President Xi's

vision of nurturing a sense of ecological citizenship. The cooperation between the university and the local enterprises is also a very effective way.

Interviewee 9

Question 1: What do you think of the situation of ecological civilization education in our university?

I believe our university has taken commendable steps in integrating ecological civilization education, but there's room for enhancement. While some departments have embraced this education, it's crucial to ensure a more comprehensive and standardized approach across all disciplines. Strengthening partnerships between departments and establishing a central hub for ecological education resources could lead to more impactful and cohesive integration.

Question 2: As a teacher (or manager), do you integrate ecological civilization education into the class process (or daily management process)? Please illustrate how to integrate?

Absolutely, as a psychology professor, I integrate ecological principles into my courses by discussing the psychological impacts of environmental issues. For instance, when teaching about stress and well-being, I highlight the psychological toll of ecological crises. In terms of daily management, I advocate for sustainable practices, such as reducing paper usage, promoting recycling, and organizing seminars on eco-psychology for faculty development.

Question 3: What do you think are the main restricting factors for the ecological civilization education in our university?

One potential factor could be the compartmentalization of subjects. Ecological education requires interdisciplinary collaboration, which can be challenging in a traditionally departmentalized structure. Overcoming this challenge requires fostering a culture of collaboration, emphasizing that ecological principles are relevant to all fields, and integrating them seamlessly into different disciplines.

Question 4: What do you think should be the main contents of ecological civilization education in our university?

Ecological civilization education should encompass a broad range of topics. This should include understanding the science of ecosystems, exploring the ethical and philosophical dimensions of ecological responsibility, studying the historical context of environmental movements, and practical skills like sustainable living practices and eco-conscious decision-making.

Question 5: What educational functions and roles do the university, family and community play in ecological civilization education for college students? How to help college students to acquire more knowledge of ecological civilization, improve their practical ability of ecological civilization, and better practice ecological civilization in their daily study and life?

The university provides the academic foundation for ecological education. Families play a role in instilling values of environmental responsibility. Communities offer experiential learning through participation in local sustainability projects. To enhance students' knowledge, interdisciplinary seminars can bridge ecological concepts with various subjects. Fieldwork and community engagement provide practical experience. Promoting eco-conscious clubs and workshops can encourage students to practice sustainability in daily life.

Question 6: What suggestions do you have on setting up the curriculum system of ecological civilization education for college students?

Introduce a core course titled "Ecological Perspectives" that covers ecological principles and their applications across disciplines. Collaborate with departments to design elective courses that explore ecological dimensions within specific fields. Establish a student-led "Green Campus Committee" that initiates sustainable projects, engaging students in practical ecological efforts.

Question 7: Among the social organizations and scientific research institutions you know, which can provide resources and places for ecological civilization education?

"Environmental Awareness Network" offers educational resources and hosts seminars on environmental topics. "Local Sustainability Alliance" collaborates with students to organize community-based initiatives. Both organizations provide valuable resources and engagement opportunities for ecological education.

Question 8: What else can the university make efforts to promote ecological civilization education for college students?

Establish an "Ecological Learning Center" equipped with books, films, and interactive exhibits to foster self-directed learning. Organize an annual "Green Innovation Fair" where students showcase eco-friendly projects. Collaborate with local schools to offer student-teaching placements that prioritize ecological education.

Interviewee 10

Question 1: What do you think of the situation of ecological civilization education in our university?

Considering Xi Jinping's emphasis on ecological civilization, our university has made commendable efforts in integrating ecological education. However, there's a need to align our approach with Xi's vision of harmonizing human development with nature. By infusing Xi's principles into our curriculum, we can cultivate a deep sense of ecological responsibility among students and promote a sustainable lifestyle. At present, there are still great deficiencies in the ecological civilization education in our university.

Question 2: As a teacher (or manager), do you integrate ecological civilization education into the class process (or daily management process)? Please illustrate how to integrate?

Absolutely, Xi Jinping's discourse guides my approach. In my classes, I incorporate his ideas into discussions about sustainable development, emphasizing the importance of balancing economic growth and environmental protection. In the process of appreciating natural poetry, I discuss the precious wealth and life perception with students. In daily management, I advocate energy-saving practices and organize campus clean-up drives to foster ecological consciousness.

Question 3: What do you think are the main restricting factors for the ecological civilization education in our university?

The university pay not enough attention to ecological civilization education. Teachers lack the awareness of ecological civilization education. Potential challenges

might include a lack of resources for practical ecological activities and limited faculty training in aligning curriculum with Xi's principles. Additionally, there could be a need for greater awareness among students about the significance of ecological civilization. Addressing these challenges through workshops, partnerships with relevant organizations, and promoting Xi's discourse can help overcome these obstacles.

Question 4: What do you think should be the main contents of ecological civilization education in our university?

Xi Jinping's discourse on ecological civilization emphasizes a holistic approach. This should include understanding the interconnectedness of ecosystems, promoting sustainable development, fostering environmental ethics, and instilling a sense of responsibility for ecological conservation. Practical aspects, such as waste reduction, energy conservation, and sustainable agriculture, should also be emphasized. Ethical education, knowledge education, life education, ecological education, science and technology education, and Chinese excellent traditional culture education should all be listed as the content of ecological civilization education.

Question 5: What educational functions and roles do the university, family and community play in ecological civilization education for college students? How to help college students to acquire more knowledge of ecological civilization, improve their practical ability of ecological civilization, and better practice ecological civilization in their daily study and life?

The university, families and communities jointly build a trinity of ecological civilization education system. The university provides formal education and critical thinking skills. Families instill values and ethics. Communities offer practical exposure. To enhance knowledge, host seminars that discuss Xi's discourse and its application. Encourage students to engage in community service projects that address ecological issues, creating a direct connection between education and practice.

Question 6: What suggestions do you have on setting up the curriculum system of ecological civilization education for college students?

Ecological civilization education is an important part of ideological and political education, which focuses on the concept of harmony and unity between man and nature in the courses of ideological and moral cultivation and legal

foundation. Establish an "Xi Jinping Thought on Ecological Civilization" course that delves into his discourse and its implications. Collaborate with departments to infuse his principles into existing courses. Offer practical modules on sustainable practices, allowing students to apply theory to real-world situations.

Question 7: Among the social organizations and scientific research institutions you know, which can provide resources and places for ecological civilization education?

"Green Harmony Institute" offers educational materials on Xi's ecological civilization vision. "Environmental Research Consortium" provides research papers aligning with Xi's principles. For example, Longmen County ecological civilization education practice base, can lead students to more than such places to carry out practical activities. All of the organizations can serve as resources for students and faculty.

Question 8: What else can the university make efforts to promote ecological civilization education for college students?

We should strengthen the publicity of ecological civilization education, and jointly build an ecological civilization education base, so that students can participate in more social practice. Host an annual "Xi Jinping Ecological Civilization Forum" that invites experts to discuss his discourse's significance. Establish a "Green Campus Committee" led by students to implement eco-friendly initiatives. Collaborate with local schools to develop joint ecological education projects.

Interviewee 11

Question 1: What do you think of the situation of ecological civilization education in our university?

As an education professor, I recognize the importance of ecological civilization education as an integral part of nurturing responsible and environmentally conscious citizens. While there have been commendable efforts, I believe there's room for growth. The integration of ecological concepts across various disciplines can further enhance students' holistic understanding of sustainability. Additionally, more

interdisciplinary collaboration among departments can enrich the educational experience and foster a culture of ecological awareness on campus.

Question 2: As a teacher (or manager), do you integrate ecological civilization education into the class process (or daily management process)? Please illustrate how to integrate?

Absolutely, I believe ecological civilization education should permeate the entire educational ecosystem. In my education courses, I incorporate discussions on eco-pedagogies that emphasize nature-based learning and environmental stewardship. Moreover, I advocate for eco-friendly classroom practices and encourage my colleagues to do the same. By modeling sustainable behavior, we show students how ecological values can be integrated into daily life.

Question 3: What do you think are the main restricting factors for the ecological civilization education in our university?

One potential challenge is the perception that ecological education is confined to certain majors. Overcoming this requires cross-disciplinary collaboration to show that ecological principles are relevant and applicable across various fields. Limited resources for creating eco-friendly infrastructure and offering hands-on experiences can also be a barrier. Addressing these constraints through strategic partnerships and resource allocation is essential.

Question 4: What do you think should be the main contents of ecological civilization education in our university?

Ecological civilization education should encompass topics such as sustainable living practices, environmental ethics, biodiversity conservation, climate change, and the interconnectedness of ecological systems. It's crucial to foster critical thinking about humanity's relationship with nature and explore solutions for ecological challenges. Additionally, experiential learning, such as field trips and community projects, can deepen students' connection with the environment. In practice, we should strengthen the construction of a green, low-carbon and circular development industrial system, implement green manufacturing, and adhere to the implementation of ecological civilization behavior in daily life.

Question 5: What educational functions and roles do the university, family and community play in ecological civilization education for college students? How to help college students to acquire more knowledge of ecological civilization, improve their practical ability of ecological civilization, and better practice ecological civilization in their daily study and life?

The university imparts foundational knowledge and cultivates critical thinking skills. Families instill values of environmental responsibility and ethics. Communities offer experiential learning opportunities through projects and engagement with local sustainability initiatives. To enhance students' practical ability, internships with environmental organizations, participation in community service projects, and workshops on sustainable practices can be integrated into the curriculum. Families and communities should play a more adequate role.

Question 6: What suggestions do you have on setting up the curriculum system of ecological civilization education for college students?

Create a core course on "Ecological Citizenship" that all students are required to take. This course would cover ecological principles, sustainable practices, and the role of individuals in shaping a sustainable future. Collaborate with various departments to offer interdisciplinary courses that explore the ecological dimensions of different disciplines. Establish a campus sustainability committee that includes students, faculty, and staff to oversee and enhance ecological education initiatives.

Question 7: Among the social organizations and scientific research institutions you know, which can provide resources and places for ecological civilization education?

The "Ecological Education Network" offers educational resources, workshops, and conferences focused on eco-pedagogies. "Youth for Sustainability" engages students in environmental projects and offers hands-on experiences. "Green Futures Institute" conducts research on sustainable practices and provides resources for integrating ecology into education. Qingdao Association for Science and Technology is also a very good activity organization to carry out ecological civilization education.

Question 8: What else can the university make efforts to promote ecological civilization education for college students?

We should pay attention to publicity, guidance and organization. Establish an eco-campus program that focuses on reducing the university's environmental footprint. Create a student-led "Sustainability Ambassadors" program that educates peers about eco-friendly practices. Develop partnerships with local schools for collaborative ecological education projects. Launch an annual "Sustainability Week" with workshops, seminars, and interactive events to raise ecological awareness across campus.

Interviewee 12

Question 1: What do you think of the situation of ecological civilization education in our university?

As an education professor, I commend the efforts our university has taken to introduce ecological civilization education. However, there is an opportunity to enhance its integration across various disciplines. Ecological education should not be limited to specific courses but should be seamlessly woven into the fabric of our institution. A more holistic approach that fosters ecological awareness in all students, regardless of their major, can truly cultivate a sustainable mindset for the future.

Question 2: As a teacher (or manager), do you integrate ecological civilization education into the class process (or daily management process)? Please illustrate how to integrate?

Absolutely, as an education professor, I firmly believe in modeling eco-friendly practices. In my teaching methodology courses, I encourage future educators to incorporate nature-based learning experiences into their lessons. For example, organizing outdoor sessions for observing local ecosystems or integrating ecological themes into literature discussions. Moreover, I collaborate with colleagues to design interdisciplinary projects that emphasize ecological perspectives, encouraging students to connect classroom learning with real-world ecological challenges. As university teachers, we should focus on the knowledge points of the course content, and integrate the ecological civilization, ecological ethics, sustainable development and other ecological civilization education content.

Question 3: What do you think are the main restricting factors for the ecological civilization education in our university?

The combination of ecological civilization education with ecological civilization practice is not close enough, and the system of ecological civilization education is not strong. One potential factor might be the lack of awareness among educators about the significance of ecological education beyond environmental science courses. It's essential to provide faculty training sessions that demonstrate how ecological perspectives can be integrated into various subjects. Additionally, limited resources for outdoor learning experiences might hinder practical ecological exploration, which is a crucial aspect of this education.

Question 4: What do you think should be the main contents of ecological civilization education in our university?

Ecological civilization education should encompass a range of topics, including environmental ethics, sustainable living practices, eco-literacy, ecological interconnectedness, and the social implications of ecological choices. Courses should also address the historical and cultural dimensions of ecological relationships and emphasize the role of education in fostering a responsible ecological mindset. Ecological ethics, ecological health, ecological values, sustainable development concept and other contents can be regarded as the main content of ecological civilization education.

Question 5: What educational functions and roles do the university, family and community play in ecological civilization education for college students? How to help college students to acquire more knowledge of ecological civilization, improve their practical ability of ecological civilization, and better practice ecological civilization in their daily study and life?

The university pays attention to the systematic education of ecological civilization, including ecological nature view, ecological ethics, social and ecological civilization construction, etc., to comprehensively improve the ecological civilization literacy of college students. The university imparts foundational knowledge and pedagogical approaches. Families should actively practice ecological civilization, and cultivate and practice ecological civilization from small matters and specific matters.

Families instill values and ethical considerations related to ecology. Communities should integrate ecological civilization through all aspects of community construction and community management. Communities offer practical experiences through engagement in local eco-projects. To enhance practical ability, the university can collaborate with local schools to provide student-teachers with opportunities to design and implement nature-based lessons. Families can incorporate eco-friendly habits into daily life, and communities can organize environmental awareness campaigns.

Question 6: What suggestions do you have on setting up the curriculum system of ecological civilization education for college students?

We should integrate ecological civilization education into the curriculum system of general, specialized, ideological and political and practical courses, and combine the first and the second classes to learn and practice ecological civilization. Develop an "Ecological Education" course that introduces students to the theory and practice of integrating ecological concepts into teaching. Collaborate with other departments to offer interdisciplinary courses that explore ecological dimensions across disciplines. Create a mentorship program where education majors partner with experienced educators who excel in eco-friendly teaching methods.

Question 7: Among the social organizations and scientific research institutions you know, which can provide resources and places for ecological civilization education?

All kinds of associations, associations, science and technology associations and popular science organizations (institutions), such as ecological societies, are all excellent organizations to carry out ecological civilization education. "Environmental Education Association" offers teaching resources and organizes conferences on eco-pedagogy. "Green Learning Centers" provide interactive platforms for students to engage in hands-on eco-education activities. Both organizations can offer workshops and support for educators.

Question 8: What else can the university make efforts to promote ecological civilization education for college students?

We should encourage and guide students to set up student associations and learning clubs for ecological civilization, and regularly report on ecological civilization forums. Establish a "Green Campus Initiative" that focuses on making the campus environmentally friendly. Create a student-led "Eco-Education Club" that organizes eco-literacy workshops for local schools. Collaborate with local schools to provide education majors with internships where they can practice eco-friendly teaching methods.

Appendix D
The Results of the Quality Analysis of
Research Instruments

The Results of the Quality Analysis of Research Instruments

Ecological Civilization Education in Qingdao Hengxing University	Experts			IOC	Conclusion
	1	2	3		
The basic information of the university students					
Grade	1	1	1	1	consistent
Gender	1	1	1	1	consistent
Major	1	1	1	1	consistent
The students' cognition of ecological civilization					
The meaning of ecological civilization	1	1	1	1	consistent
The students' sense of identity with ecological civilization					
Individuals actively pay attention to the relevant information of ecological civilization education	1	1	1	1	consistent
It is necessary for colleges and universities to offer ecological civilization education courses	1	1	1	1	consistent
The importance of protecting the ecological environment	1	1	1	1	consistent
The relationship between ecological civilization and the students themselves	1	1	1	1	consistent
Statement of the relationship between man and nature	1	1	1	1	consistent
The way to pay attention to the information about ecological civilization	1	1	1	1	consistent

(Continued)

Ecological Civilization Education in Qingdao Hengxing University	Experts			IOC	Conclusion
	1	2	3		
The organizations that have organized and promoted the ecological civilization knowledge	1	1	1	1	consistent
The effective ways to carry out ecological civilization education	1	1	1	1	consistent
The ecological civilization education in the university and the education atmosphere in family and community					
Open up public basic courses for ecological civilization	1	1	1	1	consistent
Provide compulsory courses for ecological civilization majors	1	1	1	1	consistent
Open up public elective courses for ecological civilization	1	1	1	1	consistent
Open up elective courses for ecological civilization majors	1	1	1	1	consistent
Academic lectures or reports on ecological civilization education	1	1	1	1	consistent
The club of ecological civilization	1	1	1	1	consistent
Practical activities of ecological civilization education	1	1	1	1	consistent
Ecological civilization education in the family	1	1	1	1	consistent
Publicity and education of ecological civilization in the community	1	1	1	1	consistent

(Continued)

Ecological Civilization Education in Qingdao Hengxing University	Experts			IO	Conclusion
	1	2	3	C	
The students' practice of ecological civilization in their daily life and study					
Food, clothing, shelter and transportation habits in daily life	1	1	1	1	consistent
Buy plastic bags in supermarkets	1	1	1	1	consistent
Cut off the computer or mobile phone immediately after charging the electric plug	1	1	1	1	consistent
When you encounter "long light" "long water" the usual practice	1	1	1	1	consistent
Garbage classification and treatment	1	1	1	1	consistent
Promote ecological civilization to others	1	1	1	1	consistent
Open Questions					
Suggestions to carry out ecological civilization education	1	1	1	1	consistent
The key aspects of ecological civilization construction	1	1	1	1	consistent

Appendix E
Certificate of English



This is to certify that

Miss Xiangli Kong

Achieved BSRU English Proficiency Test (BSRU-TEP) level

C1

Given on 3rd October 2020

A handwritten signature in blue ink, appearing to read 'K. A. i.', is written over the printed name of the Director.

(Assistant Professor Dr Kulsirin Aphiratvoradej)

Director

Appendix F

The Document for Acceptance Research

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Acceptance Letter

Dear Author(s): **Kong Xiangli , Nonnathi Dulyadaweesid , Niran Sutheeniran, Kulsirin Aphiratvoradej, Patchara Dechhome**

Paper ID	JHEU_25
Paper Title	Ecological Civilization Education in Qingdao Hengxing University

This is to enlighten you that the above manuscript was reviewed and appraised by the review committee members of **IFERP** and it is accepted for the purpose of publication in the “**Journal of Harbin Engineering University (JHEU)**”.

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