

The Current Situation and Training Approaches of Environmental Literacy of College Students Based on Learning Psychology Theory

Hou Yongmei

Department of Psychology, School of Humanities and Management, Guangdong Medical University, Dongguan, Guangdong, China

With the development of China's economy, environmental issues such as resource depletion, ecological damage, and environmental pollution are becoming increasingly prominent, posing a threat to the implementation of sustainable development strategy. College students are recipients, practitioners, and disseminators of environmental knowledge, the main body in implementing sustainable development strategies, and the main force in building a harmonious society of "harmonious coexistence between humans and nature". Strengthening environmental education for college students is of great significance for achieving sustainable development. Currently, China's annual enrollment of non environmental students accounts for over 99.5% of the enrollment of ordinary universities. Only about 10% of higher education institutions offer relevant environmental education courses in non environmental majors, resulting in a relatively weak environmental education received by most college students, and their environmental literacy urgently needs to be improved. Based on the above situation, this study describes the current situation of environmental literacy among college students, analyzes its causes from the perspective of learning theory, and proposes countermeasures and suggestions for environmental education, in order to provide reference opinions for the environmental literacy education of college students.

Keywords: College students; Environmental literacy; Learning theory

I. Introduction

In the 20th century, human society has achieved unprecedented tremendous development, with great progress in industry and technology. It can be said that humanity has obtained material wealth that is unparalleled in any previous era. While enjoying the benefits of these developments, humanity is facing confusion and threats that prevent it from continuing to develop well, because this extensive economic development model, which achieved temporary economic development by destroying the environment and wasting resources, has brought humanity to a very passive and tragic situation. The destruction of the environment, the near depletion of

resources, the desertification of land, the greenhouse effect, water pollution, and the rampant garbage have become the most important factors restricting social and economic development, directly affecting human health and quality of life, and also causing great uncertainty to the fate of future generations. Attitudes, concepts, and values directly affect and even to a considerable extent determine human actions. Therefore, if we want to change environmental problems, we must start with changing people's awareness and concepts. Only by educating people to abandon outdated and unreasonable environmental awareness and rebuild good environmental ethics can we ultimately solve various environmental problems. Based on the above social background, environmental literacy education is increasingly receiving attention from all sectors of society[1].

College students will be decision-makers, managers, and executors of social, economic, and scientific and technological field, as well as concrete implementers of sustainable development strategies. Their level of environmental literacy is closely related to the sustainable development of the country. However, many college students have not yet developed a sustainable worldview and good environmental literacy, and have not truly cared about the natural resources and ecological environment closely related to human destiny. This directly affects the sustainable development of society, economy, and humanity itself. Therefore, understanding the current situation of college students' environmental literacy, clarifying its causes, and finding effective ways of environmental literacy education is of great significance to the sustainable development of society. However, there is not much research on the environmental literacy and its cultivation of college students.

II. Overview of 'Environmental Literacy'

In 1968, American scholar Charles Roth proposed the concept of "environmental literacy" by summarizing the characteristics of citizens with environmental literacy[2]. Since then, many scholars have made modifications to the concept of "environmental literacy", but to this day, there is no unified consensus on the connotation of environmental literacy. The widely recognized definition in the academic community is "environmental quality is the sum of environmental knowledge, environmental attitudes, environmental awareness, environmental protection skills, and environmental participation (behavior) that people acquire and form through acquired learning about the human living environment (also known as AKASP)" [3]. Environmental knowledge is the fundamental level of environmental literacy, including basic knowledge of ecology, knowledge of environmental issues, energy and resource utilization, environmental policies and regulations. Environmental attitude is a viewpoint and perspective on the environment based on environmental knowledge, reflecting human value orientation and environmental emotions. It makes judgments about environmental issues based on personal moral sense, expresses likes and dislikes, and makes personal avoidance decisions. Environmental awareness refers to psychological tendencies towards environmental issues and systems, manifested in sensitivity, attention, and sense of responsibility towards environmental issues, as well as motivation to participate in environmental activities. Environmental behavior is a behavior that occurs spontaneously by individuals and has a direct or indirect impact on the environment. It is a means of influencing sustainable environmental development and is at a rather higher level of environmental literacy structure. Environmental skills are at the highest level of environmental literacy, which refer to the ability to use certain environmental knowledge to determine and solve

environmental problems in the surrounding and globally[4]. The five elements of environmental knowledge, environmental attitude, environmental awareness, environmental protection skills, and environmental participation (behavior) are a progressive and cyclical relationship. The relationship between them can be represented by a cyclic progressive model of "knowledge - attitude– awareness– behavior - skills - knowledge": the acquisition of knowledge is the foundation of attitude, that is, the acquisition of knowledge can motivate learners to form positive environmental attitudes. Environmental awareness is the stabilization and internalization of environmental attitudes. Attitude determines awareness, awareness determines behavior, and skills are formed in behavior, which in turn guides and corrects behavior, generating new environmental knowledge, forming new environmental attitudes and environmental awareness, and so on. This cycle leads to a spiral improvement in people's environmental literacy[5]. An important feature of environmental literacy education for college students in environmental behavior is the emphasis on shifting learning from memorization to application of knowledge, which involves the transfer of knowledge to skills. The higher the degree of generalization of knowledge, the more it can reflect the essence and laws of things. The wider the connection with specific things, the greater the adaptability, and the greater the possibility of transferring to specific situations to form new skills [6,7]. The main reason for the transfer of environmental protection knowledge to environmental protection skills is the "epiphany" of the relationship between knowledge and skill application scenarios. The more individuals can discover the relationship between the two, the more they can generalize and generalize, and the more common transfer becomes [7].

III. The Current Situation and Causes of Environmental Literacy among College Students

3.1 Environmental Knowledge of College Students

Scholars have conducted surveys on the environmental literacy of domestic college students [8-10] and found the following four major characteristics: First, the environmental literacy of college students is at a moderate level, which is far from the requirements of sustainable development. Moreover, there are differences in the environmental literacy of college students in categories such as grade, gender, major, and place of residence. This reflects the impact of the relevance of learning tasks, learning contents and environmental protection, as well as students' attention to environmental issues on environmental literacy, also reflects the lack of social mission among college students. Even students majoring in environmental protection are unwilling to consider environmental protection as a lifelong career due to the low income and social reputation, and are unwilling to invest the necessary energy and enthusiasm. Second, specifically, college students have the lowest score in environmental knowledge and the highest score in environmental attitude; The environmental knowledge of college students is relatively narrow, characterized by shallow, incomplete, and incomplete aspects. They have a good grasp of basic environmental knowledge and know some basic environmental science terms, such as "air quality level", "pollution index", "water quality classification", Pm2.5, etc., because these knowledge are involved in the study of biology, chemistry, and other disciplines, and are often learned through mass media promotion, but they have a poor grasp of deep environmental knowledge, and more than half of the college students can not

correctly understand deep environmental knowledge (the reason for environmental phenomena), such as the error rate of 68.9%, 73.4% and 91.2% respectively for "the main reason for the Yellow River's cutoff", "what are greenhouse gases", "how much solar energy reaches the earth's surface is fixed by green plants" and other issues, because compared with common sense basic knowledge, deep environmental knowledge is far from students' learning and life. College students focus on school club activities, professional learning, and job applications as their main tasks, and are relatively indifferent to "unrelated" matters such as environmental protection. This leads to insufficient attention and knowledge in this area. Third, it can be seen that the interest and ability of college students in interdisciplinary learning need to be improved. Environmental regulations are originally the basis for citizens' environmental behavior and the knowledge that citizens should possess, but college students have less understanding of this content. For example, less than 2% of students can correctly answer the concepts of "environmental rights" and "intergenerational fairness", because these are highly professional, involving multi-disciplinary knowledge such as environmental economy, environmental ethics and environmental development, and are comprehensive. Final, there is a lack of vivid emotional knowledge. The main sources of college students' environmental knowledge are the network, television, radio and newspapers, which shows that the media plays an important role in the acquisition of students' environmental knowledge. It also reflects that college students seldom acquire fresh perceptual knowledge through their own empirical investigation or on-site observation, and fail to link theoretical learning with practical activities, affecting the understanding, memory and application of theoretical knowledge.

3.2 Environmental Awareness of College Students

Environmental awareness mainly involves the severity of environmental problems, the significance of environmental protection, and the subconscious attitude towards environmental protection. The environmental awareness of most college students is constructive. 89.6% of college students believe that the environment is closely related to their physical and mental health, with less than 10% believing that the relationship between the environment and physical and mental health is minimal; 87.3% of college students believe that they should treat the environment well and undergo moderate transformation; 83.5% of college students tend to be dissatisfied with the environment, with less than 10% expressing satisfaction; More than 70% of college students feel poor or rather poor about environmental conditions, with less than 15% feeling better or rather better [9-11]; Students living in rural areas have a stronger sense of environmental degradation than those living in cities. It can be seen that college students generally believe that the environment has a significant impact on their physical and mental health, and have high requirements for environmental quality. However, the current environmental conditions do not meet the requirements of college students, and rural students have a worse evaluation of the environment [10-11].

Inglehart's Postmaterialism Theory is one of the three theories explaining the rise of modern environmental awareness [12]. He called the values concerning economic growth and material security "materialism", and the values concerning self-realization and quality of life "post-materialism", and then put forward the Post-materialism Hypothesis of the rise of environmental awareness. He believes that with the improvement of economic

conditions, the intergenerational culture of the young generation is changing from "materialism" to "post-materialism" [13], and the proportion of post-materialism is growing; There is a significantly positive relationship between the post-materialism values and the public's environmental awareness and support for the environmental protection movement [12, 13]. Those who perceive poor environmental quality have stronger environmental awareness than those who perceive good environmental quality [14].

3.3 Environmental Attitudes of College Students

The environmental attitude of college students is basically positive, with over 81% of them recognizing that environmental protection requires everyone's participation. They agree when using natural resources, it is necessary to consider leaving available resources for future generations, not exploiting resources beyond the limits of human capabilities, and not developing the economy at the cost of sacrificing the environment. They think that environmental education courses can improve their environmental literacy. All these show that college students have correct environmental Values [8-9]. However, the environmental attitudes of college students are still on the surface and have not risen to the level of ethical values. For example, science and technology not only provide means for humans to improve the environment, but also bring about environmental pollution. In fact, environmental pollution comes from various production technologies invented and created by humans for the purpose of pursuing output and profits after the Industrial Revolution [15]. Environmental problems are essentially a social and economic development problem, rooted in human misconceptions and improper behavior, failing to recognize the fragility of the natural ecological environment and the limited and non renewable nature of resources, and failing to implement the production concept of sustainable development. Therefore, relying solely on science and technology cannot solve all environmental problems, and some college students are not aware of this and believe that high-tech skills can solve all environmental problems; Many students do not truly understand the connotation of the scientific outlook on development, believing that it is natural to treat pollution after the environment has been polluted. When it comes to self-interest, most college students tend to be 'self-centered'. For example, on issues such as "the country should immediately ban the use of disposable chopsticks and lunch boxes" and "increase certain environmental protection costs in commodities" [8, 11], more than 30% adopt a permissive attitude; 91.2% of students "actively participate in low-carbon modes of transportation such as public transportation, transportation, or cycling", but most of them are due to "economic reasons" [11]; On issues such as "adjusting winter heating methods", "reducing fireworks and firecrackers", "reducing indoor smoking", and "reducing outdoor barbecue"[16], the approval rate is only 50.9% -74.3%. It can be seen that college students cannot consider issues from the perspective of harmonious coexistence between humans and nature and sustainable development.

3.4 Environmental Behavior of College Students

College students have a good environmental behavior tendency and are willing to take certain actions to protect the environment. However, there is an obvious "disconnection" between college students' environmental knowledge and environmental behavior. The level of environmental behavior is far lower than the level of environmental knowledge. The consciousness of environmental protection behavior needs to be improved,

especially when it comes to "classification of living waste sorting", "towards bad environmental behavior of others", and "attention to environmental problems". For example, more than half of college students have not taken any measures to protect themselves from the effects of haze, and only 19.38% of them wear professional masks when going out in haze weather [17]; As for the "Waste sorting of dormitory life", only 6.93% of college students "always do this", 18.65% of college students will do this when they have time, 45.38% of college students hardly do it, and 29.04% never do it; Regarding "towards bad environmental behavior of others", 25.91% of college students persuade and dissuade them, 13.53% of college students discuss with classmates, 56.6% of college students realize that it is wrong but do not pay attention, and 3.96% of college students remain indifferent; When encountering environmental issues while reading books and newspapers, 14.85% of college students are very concerned, 72.44% of college students only skim, 9.57% of college students generally do not read, and 3.14% of college students are unlikely to read; 34.4% of college students keep pets, but 95.5% of pet owners take them away upon graduation, resulting in a large number of pets turning into "beasts" and wandering around the campus.

The environmental behavior scores of college students from cities are slightly higher than those from rural areas [9,17], which is exactly the opposite of the scores in environmental awareness. On one hand, this contradiction reflects that environmental awareness and environmental behavior have different pathways of formation: environmental awareness largely depends on individual perception of the degree of environmental pollution and harm suffered, Rural students perceive higher levels of environmental pollution and personal harm than urban students, therefore their environmental awareness is higher than that of urban students; the formation of environmental behavior is not only based on environmental awareness, but also requires sufficient and effective training in environmental behavior habits. Compared to rural students, urban students have been receiving more and more systematic environmental behavior training since attending kindergarten, and their environmental behavior habits are naturally stronger. On the other hand, the level of completeness of environmental hardware devices, i.e. the level of environmental support, is also an important reason for this difference. Regional public facilities with high administrative level are much more perfect. As far as Waste sorting is concerned, classified garbage cans can be seen everywhere on both sides of urban roads. For people, Waste sorting has become a natural habit; In many villages, due to limited economic development and insufficient public investment, garbage recycling is still handled by stacking and burning. In this general environment, individuals should pay attention to and achieve Waste sorting, which is really more difficult.

3.5 Environmental Behavior Skills of College Students

College students have mastered some simple, basic and scattered environmental protection skills, such as "water conservation", "Waste sorting", "green travel" and other skills, and can apply these simple skills to life. However, their environmental skills lack depth and systematicity, making it difficult to properly handle the complex environmental issues. The reason for this is that college students mainly learn fragmented environmental skills through family education, school courses, and media promotion, with only 15% of environmental skills acquired through environmental education courses. It can be seen that most universities do not offer environmental education courses, and university environmental education has not yet played its due role.

IV. Cultivation of Environmental Literacy for College Students

The cultivation of environmental literacy among college students is a system with multi-level educational objectives, including basic knowledge of ecology, environmental science, environmental health, environmental problem investigation, and citizen action training. The learning of environmental knowledge is the first level goal, mainly obtained through course learning. Mastering the skills to solve environmental problems, improve and optimize the environment is the second level goal, mainly obtained through teacher demonstrations and guidance, student on-site observation, and student practice. The goal of the third level is to understand the environment from an ideological and emotional perspective, respect the environment, care for and love the environment, and form a good attitude and a sense of responsibility towards the environment. The fourth level goal is to equip students with the ability to understand, judge, protect, and effectively govern environmental issues. Environmental ability is formed by individuals with good environmental awareness through the correct application of environmental knowledge and skills. The highest level and ultimate goal of environmental education in universities is to cultivate students' good literacy in consciously and effectively protecting the environment through the exercise of environmental knowledge, skills, awareness, and abilities.

The United Nations Educational, Scientific and Cultural Organization believes that environmental education can expand college students' environmental knowledge, correct their environmental attitudes, strengthen their environmental awareness, enhance their sense of environmental responsibility, cultivate their appropriate environmental behavior and effective environmental skills, and fundamentally improve their environmental literacy and alleviate environmental pollution; Cultivating the environmental literacy of college students through multiple channels can achieve twice the result with half the effort [18]. There are three channels for environmental education: community, family, and school. The environmental education in the community is severely fragmented [17], and college and middle school students live in schools for more than 75% of the time, making it difficult to encounter the environmental education in the community. Therefore, the environmental education in the community has little impact on the environmental literacy of college students. Family environmental education mainly influences college students' pro environmental behaviors through external normative pressures such as parents' words and deeds, including parents' subjective norms and descriptive norms. Parent subjective norms refer to parents' expectations and requirements for children to participate in environmental behavior; Parental descriptive norms refer to the status of parents' own implementation of environmental protection behaviors [19]. Foreign studies show that parents' subjective norms and descriptive norms will jointly promote children to form good subjective norms and pro environmental behaviors, and parents' descriptive norms can also directly promote children's willingness to pro environmental behaviors [19]. It can be said that family environmental education subtly affects an individual's life from birth, and its implementation and effectiveness largely depend on the environmental literacy and educational ability of parents. As parents of current college students in our country, most of them are over 45 years old and have not received systematic environmental education, their environmental knowledge and understanding come from a little understanding of daily life, and their environmental literacy is not high. The positive impact on their children's environmental literacy is not significant, while the negative

impact is significant [20]. Therefore, the environmental literacy education for college students is mainly undertaken by the universities they are studying in [21]. As mentioned earlier, most universities do not offer environmental education courses, and university environmental education has not yet played its due role. We can strengthen environmental education in universities from the following aspects.

4.1 Improving the Understanding of Environmental Literacy Education at the Decision-making Level in Universities

Overall, the environmental literacy education in Chinese universities is still far from keeping up with the needs of the situation. Compared with the development of environmental literacy education in primary and secondary schools, this backwardness is closely related to the insufficient attention paid to environmental education by the decision-making level of universities. Environmental issues are becoming an important factor restricting social development, and universities should take on the responsibility of cultivating a new generation of cross century talents with high environmental literacy. After graduation, college students should pay attention to environmental issues in their work and effectively ensure the implementation of sustainable development strategies. Therefore, environmental literacy education should be an important component of higher education, and university decision-makers must incorporate environmental literacy education into corresponding teaching and education reforms from aspects such as educational ideology, teaching content, teaching models, and management systems. They must improve the curriculum system of higher environmental literacy education, promote the intersection and integration of environmental literacy education with other disciplines, incorporate the goal of building a "green university" into the development plan of universities, and create a strong environmental education atmosphere. At the same time, efforts should be made to increase investment in environmental education. Central and local governments at all levels should specifically allocate environmental education funds and maintain a synchronous growth with the total investment in environmental protection funds in the same level of finance. Central and provincial governments may also establish special incentives as appropriate. For regions with relatively backward economic development levels or severe environmental problems, the central government should give preferential treatment and support.

4.2 Improving the Environmental Literacy of Teachers

For non environmental majors, environmental education is an interdisciplinary education that requires teachers to have strong comprehensive knowledge and abilities. A high-quality team of environmental education teachers is a prerequisite for successfully achieving the goals and objectives of environmental education. First, in order to expand the high-quality teaching staff as soon as possible, the central and local governments need to accelerate the professional training and certification of in-service teachers through cooperation with international environmental organizations and environmental education institutions in developed countries. Projects such as the "National Environmental Education Seed Teacher Training" and the "Thousand Teachers Environmental Friendly Ambassadors Project" launched in March 2016 should be promoted. Second, we should select teachers with rich practical experience and extensive knowledge for the public elective courses, with a high sense of historical responsibility, supplemented by necessary methods, measures, and means to teach. We can also hire some

excellent experts from outside the school as guest teachers to stimulate students' interest in environmental protection to the greatest extent possible, cultivate their environmental awareness, and ensure the effectiveness of environmental literacy education. Third, teachers of professional courses in various disciplines should have a certain level of environmental knowledge, integrate environmental protection concepts and awareness into the teaching of professional courses, and be able to provide students with necessary guidance in practical teaching. Fourth, administrative personnel who provide literacy education to students should also strengthen their own environmental literacy, and pay attention to cultivating students' environmental literacy in carrying out second classroom activities and organizing club activities. Finally, it is necessary to strengthen communication and learning with universities in developed countries, learn from advanced educational concepts, methods, and techniques, and improve the level of theoretical research on environmental education.

4.3 Strengthen the Construction of Teaching Resources

Teaching resources are effective means of conducting educational activities, mainly including (1) materials (information on environmental education at home and abroad); (2) Textbooks (course books, audiovisual products, teaching reference books, wall charts, maps, etc.); (3) Equipment (audio-visual equipment, computers and the auxiliary teaching CAI software, multimedia, environmental quality monitoring instruments and equipment, etc.); (4) Off campus environmental education base. We should improve the infrastructure and hardware conditions of education from the above four aspects, and create a relaxed teaching and research work environment.

4.4 Environmental Literacy Education Targeting the Learning Psychology of College Students

4.4.1 Popularize environmental knowledge

Popularizing environmental knowledge is a fundamental work in promoting environmental literacy education. Knowledge can endow people with scientific thinking and discernment abilities, and is also a prerequisite and foundation for taking reasonable actions. A qualified social person should have a complete knowledge system. Today, implementing sustainable development strategies has become a global consensus. Environmental knowledge is one of the elements of environmental literacy and the basic part of environmental education. Since elementary school, college students have received multiple courses related to the environment, such as nature, geography, biology, chemistry, history, etc., with rich content. Why haven't college students been able to connect the above courses with the environment and form good environmental literacy? This largely reflects that the concept of environmental protection taught in primary and secondary schools is somewhat narrow, with a focus on end-of-life environmental governance. It fails to enable students to understand the essence of environmental problems and the relationship between environmental protection and nature, making them feel that environmental protection is a dull and rigid intellectual topic, a passive constraint on individual behavior, and it is difficult to stimulate the willingness to protect the ecological environment due to a genuine love for nature. Due to the limitation of class hours, every non environmental major college student has less than 40 hours of environmental courses (public elective courses) during their undergraduate studies. Their environmental knowledge obtained through higher education is extremely limited, and their level of environmental knowledge is basically the same as that of primary and secondary schools [22]. We say that the essence of environmental issues

is to handle the relationship between humans and nature. A complete environmental knowledge system should include knowledge of environmental natural sciences and environmental humanities and social sciences, covering a wide range of topics, including ecosystems, the relationship between humans and the environment, global environmental issues and resource status, the historical process of human understanding of environmental and resource issues, the composition, types, characteristics, and ecological protection of ecosystems, basic strategies, policies, and measures for sustainable development, economy, environment, and resources interrelationship and coordinated development of population and culture, environmental pollution and its prevention, principles and technologies of resource conservation, objects, tasks, guidelines and policies of environmental laws and regulations, basic principles and systems of environmental protection, basic requirements and measures for dealing with other public hazards, institutions, responsibilities, rewards and punishments of environmental and resource management, etc. Therefore, we must improve the content system of higher education, treat courses related to environmental protection as public compulsory courses for non environmental majors, and increase the number of environmental courses through environmental education, in order to increase the attention of college students to environmental issues, enrich, deepen, and systematize their environmental knowledge, spread the ecological moral concept of loving nature, and promote their attention, understanding, and support for environmental policies.

The students' psychological state in learning is an important factor affecting knowledge transfer. The psychological activities of students are extremely complex, manifested in various aspects such as interest in learning, whether the learning attitude is correct, and whether the learning will is strong or weak. Good mental state has a positive role in promoting transfer, on the contrary, it has a negative interference or hindrance. Therefore, in teaching, only by helping students form a good psychological state and ensuring the flexibility and smoothness of learning thinking, can teachers help achieve transfer. In addition, whether students can develop an organized and appropriate way of thinking or problem-solving is another important factor affecting transfer. Therefore, teachers should consciously teach students some cognitive strategies to identify various phenomena or methods, systematize knowledge, and guide students to timely summarize and establish a knowledge system.

Practical teaching is an important way to cultivate students' practical and creative abilities. Compared to theoretical teaching, practical teaching has the characteristics of being more intuitive, comprehensive, and innovative. Many universities and social enterprises have jointly established training bases, which can provide students with good practical opportunities in environmental management, pollution control, clean production, and other aspects and help cultivate students' abilities to understand, judge, and protect the environment.

Make full use of the second classroom. Through organized extracurricular activities, the goal is to cultivate character, acquire knowledge, and cultivate abilities. As a fundamental policy of the country, environmental protection has a global, long-term, and decisive impact on national economic construction, social development, and people's lives. Make full use of the second classroom activities to enable students to understand the country's population resources, environmental quality, and other aspects of the situation and policies, and provide environmental protection education to the majority of students. For example, organize students to conduct on-site

visits to urban and rural construction integrated with advanced environmental protection concepts, so that students can personally experience the environmental protection around them, establish a sense of responsibility and obligation to protect the environment, and exercise and cultivate an active sense of participation.

Give play to the propaganda and guidance role of student society. As a mass organization spontaneously organized by students, student societies have played an important role in improving students' environmental literacy and promoting students to become talents. For example, some colleges and universities have set up green associations, environmental protection associations and other student associations to promote environmental knowledge through various forms such as setting up relevant promotional display boards, distributing promotional brochures, hanging banners, broadcasting audio, organizing themed activities, and supporting signature messages, hire experts to give academic lectures, and carry out various forms of environmental publicity and education on World Environment Day, Earth Day, Water Day, etc, integrating environmental education into the practice of civilized campus construction and improving the campus environment anytime and anywhere, attracting more students to participate in environmental protection. However, at present, the environmental education carried out by student society is fragmented in content, and its systematicness needs to be improved.

4.4.2 Enhance Environmental Protection Awareness

Environmental protection awareness refers to the sum of various ideological concepts formed during the process of human actions to solve practical or potential environmental problems, coordinate the relationship between humans and the environment, and ensure the sustainable development of the society. Environmental protection awareness is a modern civilization awareness that reflects a new value concept that combines natural and cultural values. Environmental education must highlight the improvement of environmental awareness. It is necessary to grasp the environmental pollution and ecological damage that occur in the local area based on the actual situation. Through a combination of theory and practice, students should fully understand the environmental problems faced by their own region, realize that their behavior is closely related to the development of the environment, encourage themselves to participate in the process of solving environmental problems, and cultivate environmental protection awareness of following scientific laws in practice.

4.4.3 Cultivate Environmental Moral Literacy

Moral education is the education of social moral principles and norms for the educated, including personal morality, social morality, environmental morality, and family virtues, to cultivate their correct moral understanding, strong moral beliefs, noble moral qualities, and good moral habits. Mr. QuGeping, a famous environmentalist in China, pointed out that to solve the environmental crisis, human beings must first carry out a profound ideological change and create a new morality and new civilization marked by protecting the earth and human sustainable survival and development. " In 2019, China's Outline for the Implementation of Civic Moral Construction in the New Era [23] proposed that "social morality is the code of conduct that all citizens should abide by in social interaction and public life, covering the relationship between people, people and society, and people and nature." Among them, the code of conduct and norms that regulate the relationship between people and nature are called environmental ethics. Cultivating environmental moral literacy is to educate the educated on

environmental moral knowledge, environmental moral emotions, environmental moral qualities, and environmental moral behaviors.

China summarized the environmental ethics of citizens into three aspects [24]. First, all people have the right to live a healthy life without pollution or damage to their living environment, and have the responsibility to protect future generations and meet their survival needs. Second, all biological species on the earth have the right to have their habitats free from pollution and destruction, thus enabling sustainable survival. Humans have the responsibility to protect the ecological environment. Final, everyone has an obligation to care for others and other lives. The act of destroying or infringing on the survival rights of others and biological species is a violation of human responsibility, and such unethical behavior should be prohibited. The above three ecological standards are environmental moral norms that Chinese citizens should possess.

4.4.4 Cultivate Environmental Protection Behavior

Environmental protection refers to the general term of many administrative, economic, legal, scientific and technological measures and actions taken to ensure the rational development and utilization of natural resources, prevent environmental pollution and damage to the natural environment, coordinate the relationship between socio-economic development and the environment, and ensure human survival and development. " Environmental protection behavior is a spontaneous action taken by people to address environmental issues, and is a symbol of measuring the level of people's environmental moral will. It is a social practice based on a certain moral concept and driven by a certain emotional will. The cultivation of environmental protection behavior is to enable the educated to have the awareness of participating in environmental protection and resource conservation, and to develop good behavior habits. In order to implement the strategy of sustainable human development, environmental education is striving to widely disseminate and deeply support a new moral standard - a moral standard for sustainable living, and translate its principles into action. For educated individuals, regardless of their major or future job, understanding the necessary environmental knowledge, exemplary adherence to environmental ethics, and cultivating their own environmental protection behavior not only reflect the social responsibility of citizens, but also generate good social benefits.

4.4.5 Enhance Environmental Protection Skills

Environmental protection skills can include the following aspects: first, the ability to identify and determine problems. Environmental education should enable learners to identify various environmental issues related to their profession, production field, or daily life, such as soil, atmosphere, water pollution and monitoring, and the treatment of white pollutants. Second, there is the skill of analyzing environmental problems. Scientific analysis of environmental problems is a prerequisite for effectively solving environmental problems, but simply knowing the existence of the problem is not enough. Students should use their professional knowledge to combine theory with practice, scientifically analyze the essence, causes, and consequences of environmental problems, and achieve a comprehensive approach. Final, there is the skill of proposing problem-solving solutions. After learning the skills of scientific analysis of environmental problems, learners will naturally come up with ways or solutions to solve problems.

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