

Investigation and Research on Ecological Civilization Education for College Students in Guangzhou Area

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Abstract

The report of the 20th National Congress of the Communist Party of China states that respecting nature, conforming to nature, and protecting nature are inherent requirements for building a modern socialist country in all respects. College students play an important role in building an ecological civilization society. Conducting ecological civilization education for college students will contribute to achieving long-term success in the construction of a green and beautiful society. Ecological civilization education is an important part of higher education in China and plays a significant role in cultivating high-quality talents for the new era. It is necessary to leverage the educational function of universities to help college students establish a correct ecological outlook. This research uses the methods of investigation and interview to explore college students' cognition and behavior regarding ecological civilization, the current situation of ecological civilization education and teaching, and the methods to enhance ecological civilization education. The aim is to understand the current situation of ecological civilization education for college students, identify existing problems, and propose countermeasures.

Keywords: Ecological civilization, College students, Green and beautiful society construction

1. Preface

Ecological civilization education is an important component of higher education in China and plays a significant role in cultivating high-quality talents for the new era. In the new era, the report of the 20th National Congress of the Communist Party of China proposed the green development concept of "promoting green development and facilitating harmonious coexistence between humans and nature".^[10] With the country placing ecological civilization construction on an important agenda, universities, as important places for talent cultivation, should keep pace with the times and cultivate successors who are all-round developed and adapted to the new era.

Over the years, human development's continuous exploitation of natural resources and waste emissions have seriously affected the ecological environment, posing a significant threat to sustainable social development, which has sounded the alarm. "When ecology thrives, civilization thrives; when ecology declines, civilization declines." Humans are part of nature, and a good ecological environment is a solid material foundation for sustainable development. As the backbone of future social development, college students should be educated in ecological civilization during their cultivation process to help them develop a scientific ecological view and enhance their awareness.

Domestic scholars have conducted extensive research on the content, existing problems, and approaches of ecological education. Yu Jia'an and Chen Jiancheng proposed that higher education institutions should consider ecological civilization education as an important indicator for discipline construction and talent cultivation, and also as a key factor for the comprehensive development of the school. Elevating the disciplinary status of ecological civilization education is not only crucial for achieving ecological talent cultivation but also the core for integrating educational resources and stimulating educational motivation. [5] Yang Meile and Tang Ming believe that the publicity mechanism is of great significance to ecological civilization education. However, the current publicity work on ecological civilization education in universities is not satisfactory. The lack of professionalism and execution in publicity platforms has led to unsatisfactory publicity results. [6] Yu Lei, Chen Weidong, Li Jingqian, and others constructed a multi-dimensional influence logic path model of ecological civilization education in universities and analyzed the internal factors affecting the performance level of ecological civilization education. [4] Foreign research on environmental education shows the characteristics of early start, in-depth research content, and wide coverage of fields. The related research is relatively comprehensive and standardized, with many aspects worth learning from. However, there is a lack of research directly related to ecological civilization education in universities, and further exploration is needed. [8]

In summary, based on existing research findings, there are many problems in ecological civilization education for college students, such as insufficient content in university courses, inadequate integration of ecological civilization education in courses, weakened ecological civilization education in daily life, and a lack of awareness among college students to participate in ecological civilization education. However, there are few studies that conduct research on ecological civilization education for college students from an empirical perspective. Therefore, this study will take college students in the Guangzhou area as the research object to explore the current situation, problems, and

development paths of ecological civilization education in Guangzhou universities.

2. Research Path and Methods

2.1 Research Path

Firstly, by reviewing relevant literature on ecological civilization education, the current situation and problems of ecological civilization education for college students are understood. Secondly, a questionnaire survey on ecological civilization education for college students is conducted in four universities in Guangzhou through random sampling. The questionnaire is divided into six parts: including personal information of the respondents, the current situation and problems of ecological civilization knowledge and practice among college students, behavioral characteristics of ecological civilization, ecological civilization education in ideological and political courses, ecological civilization education in other courses, and suggestions for improving ecological civilization education. Based on the results of the investigation, the problems existing in ecological civilization education for college students are explored, and a systematic analysis of the causes is conducted. Finally, on the basis of the analysis of the current situation, problems, and causes of ecological civilization education for college students, specific countermeasures are proposed in a targeted manner.

2.2 Research Methods

Firstly, the literature research method. By reviewing relevant literature, the research status of ecological civilization education and other related studies are understood, laying a theoretical foundation for the research.

Secondly, the investigation research method. Through questionnaires and interviews, the current situation of ecological civilization education for college students is understood, obtaining first-hand data and conducting data analysis. At the same time, in-depth case interviews were conducted to understand students' cognition and behavioral motivations.

Thirdly, the theoretical analysis method. Combining the ecological civilization thought of the 20th National Congress of the Communist Party of China and the Scientific Outlook on Development, the theoretical basis of ecological civilization education for college students is studied.

3. Result Analysis

3.1 Information of the Survey Subjects

The number of people participating in the survey was 502. When asked about "personal information of college students", regarding the selection of respondents, the basic situation is as follows: In terms of the gender of the respondents, male respondents accounted for 36.82%, totaling 185 people. The proportion of female

students is 63.18%, with a total of 317 people. The proportion of female students is higher than that of male students.

Table 1. Gender Ratio

Gender	number	ratio
Male	185	36.82%
Female	317	63.18%

In terms of the age of the respondents, those under 18 years old accounted for 3.35%, totaling 17 people. Those aged 18 to 21 accounted for 89.12%, totaling 447 people. Those aged 22 to 25 accounted for 4.6%, totaling 23 people. Those over 25 years old account for 2.93%, totaling 15 people, and the majority are aged between 18 and 22.

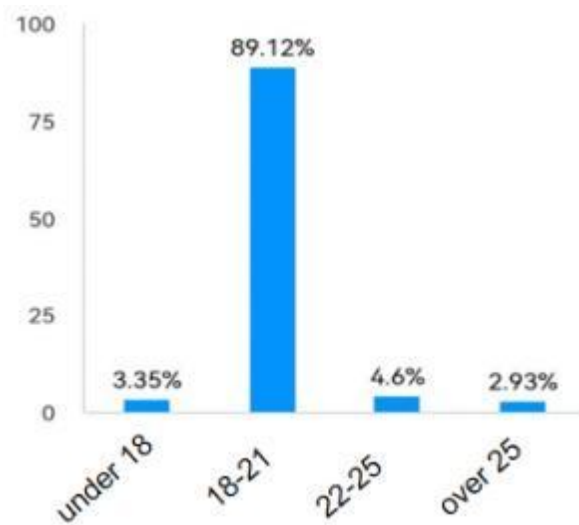


Figure 1. Age distribution

In terms of professional distribution, liberal arts accounted for 46.44%, with a total of 233

students. Science and engineering students account for 27.62%, with a total of 139 students. Art category accounts for 1.67%, with a total of 8 people. Others account for 24.27%, totaling 122 people, with a relatively large proportion being from the liberal arts category.

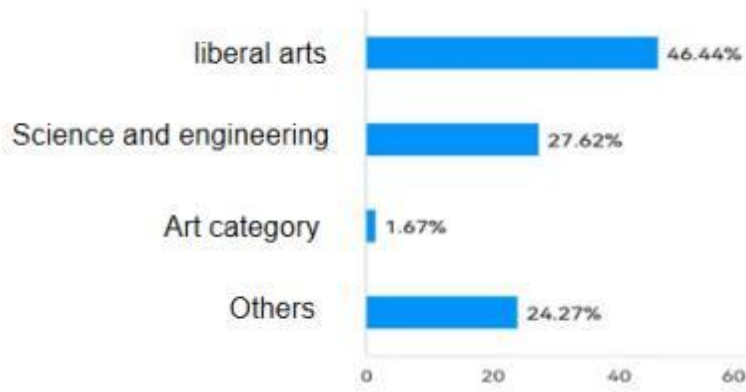


Figure 2. Distribution of specialties

In terms of the educational attainment of the respondents, 88.49% of them are junior college students, totaling 444 people. The proportion of undergraduate students is 8.55%, with a total of 44 students. Doctoral students account for 2.63%, totaling 14 people, with junior college students making up the largest proportion.

Table2. Distribution of educational qualifications

educational attainment	ratio
junior college students	88.49%
undergraduate students	8.55%
Postgraduate students	0.33%
Doctoral Students	2.63%

3.2 The current situation of college students' understanding and practice of ecological civilization

The survey results show that 81.59% of the respondents are aware of the date of World Environment Day. Regarding the content of ecological civilization in the report of the 20th National Congress of the Communist Party of China, 18.83% of the respondents, totaling 94 people, were very familiar with it. The proportion of respondents who had a general understanding was 57.74%, totaling 290 people. The proportion of respondents who were not familiar with it was 23.43%, totaling 118 people. The results show that a relatively high proportion of the respondents have a general understanding of the content related to ecological civilization in the report of the 20th National Congress of the Communist Party of China.

Table 3. College Students' Understanding of Ecological Civilization

Do you know when World Environment Day is?	June 5th	March 22nd	July 23rd	April 5th
	81.59%	8.37%	7.11%	2.39%

Do you know the content related to ecological civilization in the report of the 20th National Congress of the Communist Party of China?	very familiar	general understanding	not familiar
	18.83%	57.74%	23.43%

In terms of recognizing the significance of ecological civilization construction, 74.48% of college students strongly agree. These survey data reveals the cognitive level and attitude of college students towards ecological civilization education. Most college students have a certain understanding of ecological civilization education, while some college students have less knowledge about ecological civilization. The vast majority of college students recognize the significance of ecological civilization, accounting for 74.48%. This indicates that college students recognize the importance of ecological civilization, but the relevant knowledge they have mastered still needs to be improved.

The survey results on the behavior of college students' participation in ecological and environmental protection show that 58.58% of college students occasionally use disposable products, and 33.47% frequently use them. It can be seen that the frequency of college students' use of disposable products is relatively high. As for garbage classification, 40.17% of college students sort it, 39.75% sort occasionally, and 20.08% do not sort it. This indicates that the proportion of college students participating in garbage classification is relatively high, but the proportion of those who know occasionally and those who do not is high, exceeding half. 64.44% of the students chose to stop the behaviors that damage the environment around them, which accounted for a high proportion. Among the respondents, 22.59% frequently participate in public welfare activities for environmental protection, 62.76% occasionally participate, 10.04% do not participate, and 4.6% are indifferent. According to the survey data, it is found that college students' enthusiasm for participating in public welfare activities is relatively low, and their ecological civilization behaviors in daily life still need to be improved. The current situation is not optimistic. More efforts are still needed in ecological civilization education to enhance college students' awareness and behavior of ecological and environmental protection.

Table 4. The Behavioral Status of college students' participation in ecological and environmental protection

How often do you use disposable products?	occasionally	frequently	All the time	never
	58.58%	33.47%	3.35%	4.6%
When you throw away garbage in your daily life, do you sort it?	yes	no	occasionally	
	40.17%	20.08%	39.75%	

When you see environmentally damaging behaviors around you, what would you choose?	indifferent	won't stop	will stop	
	14.64%	20.92%	64.44%	
When there are public welfare activities for protecting the	often	occasionally	never	indifferent
ecological environment at school or in society, do you often participate?	22.59%	62.76%	10.04%	4.6%

In order to understand the motives of college students' participation in ecological and environmental protection behaviors, case interviews were conducted on the questionnaires participating in the survey. When asked about the reasons for using disposable products, most students mentioned that they used them frequently when ordering takeout fast food and when eating fast food in fast food restaurants. As for garbage classification, college students who don't know how to do it or only do it occasionally mainly haven't developed the habit of garbage classification. The main reason for the low participation in public welfare activities for ecological and environmental protection is that the organization frequency of related activities is relatively low and the forms are relatively single, mainly carried out in the form of picking up garbage, etc., which leads to a low enthusiasm for participation.

3.3 The cultivation of ecological civilization knowledge in ideological and political courses

When asked whether ideological and political course teachers in college students' schools carry out ecological civilization education in ideological and political theory courses, 63.18% of college students said that their schools offer ecological civilization education, while only 30.13% and 6.69% of college students said that ecological civilization education is only briefly mentioned or not mentioned at all.

Question: Do the ideological and political course teachers in your school carry out ecological civilization education in ideological and political theory courses?

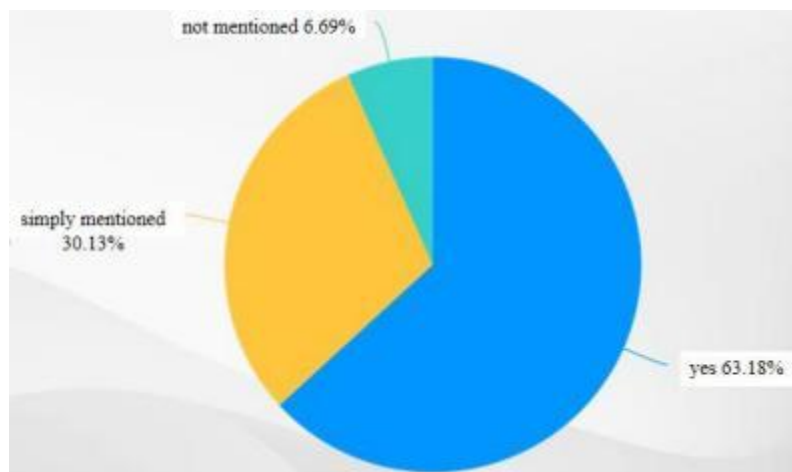


Figure 3. shows the current situation of ecological civilization education in ideological and political courses

When asked whether it is necessary for college students to integrate ecological civilization knowledge into ideological and political courses, 71.13% of the college students said it was very necessary, 17.99% said it was optional, and 8.37% and 2.51% of the college students said they were not clear or it was not necessary.

Question: Do you think it is necessary to integrate ecological civilization knowledge into ideological and political courses?

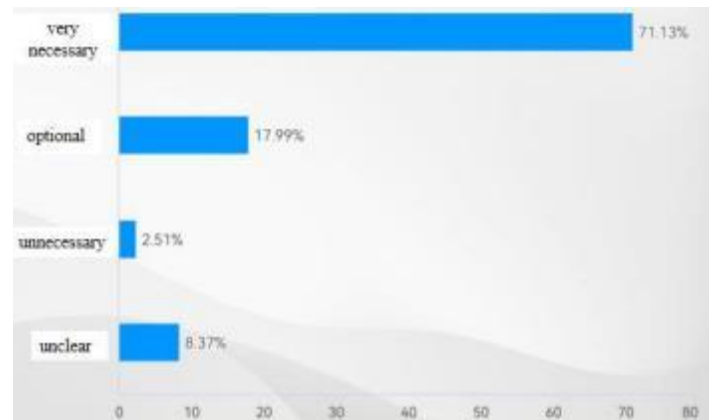


Figure 4. The necessity of knowledge related to ecological civilization in ideological and political courses

It can be seen from this that there is still a slight deficiency in the implementation of ecological civilization education by ideological and political course teachers in universities. Too many college students believe that it is very necessary to integrate ecological civilization education into ideological and political courses. A strong education system leads to a strong nation. Innovating ecological civilization education for college students is an inherent part of building a modern socialist ecological power. [2]

3.4 Other courses related to the education and cultivation of ecological civilization

When asked whether teachers of other ideological and political courses would conduct ecological civilization education in addition to imparting relevant knowledge, only 7.53% of the college students said they would not do so, while 54.49% of the college students indicated that teachers of other courses would conduct ecological civilization education. Finally, 35.98% of college students indicated that teachers of other courses rarely conduct education on ecological civilization. From this, it can be seen that teachers of other courses do not attach much importance to ecological civilization education either. Only more than half of the teachers will conduct ecological civilization education.

Question: Besides imparting relevant knowledge, do teachers of other courses also conduct ecological civilization education in their teaching?

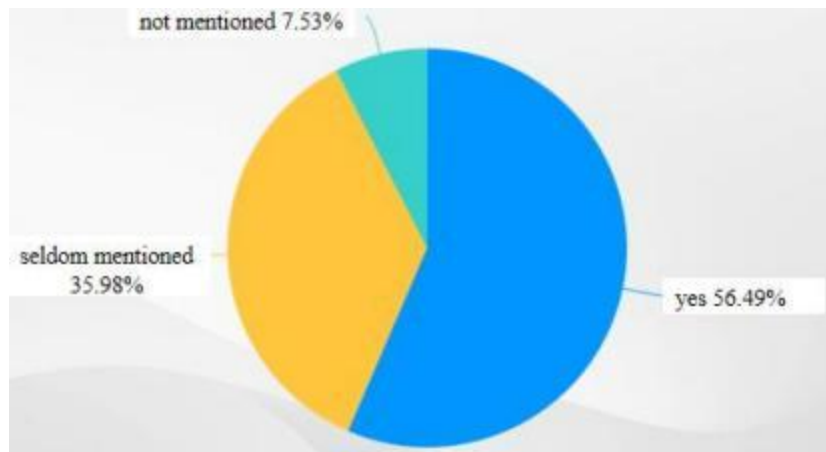


Figure 5. shows the status of ecological civilization education in other courses

When asked whether it is necessary to integrate ecological civilization knowledge into other courses, 76.57% of the respondents thought it was very necessary, 16.74% thought it was optional, 4.6% thought it was unclear, and 2.09% thought it was not necessary. It can be seen that the majority of college students think it is very necessary to integrate ecological civilization knowledge into other courses.

Question: Do you think it is necessary to integrate ecological civilization knowledge into other courses?

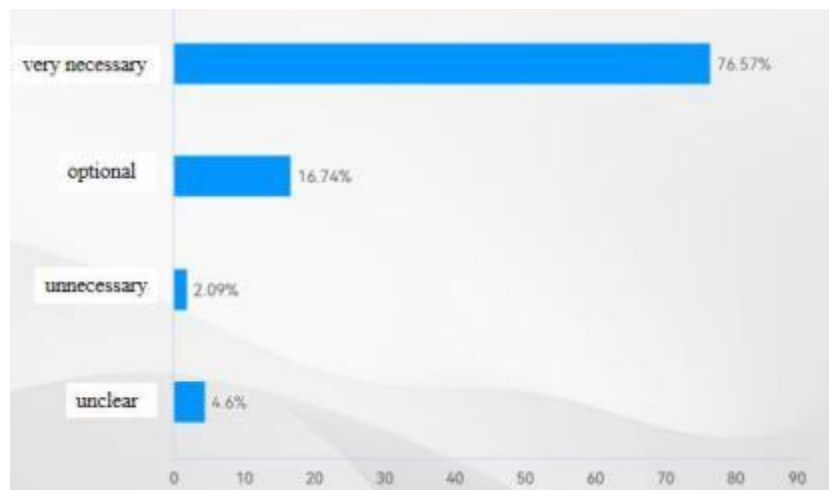


Figure 6. shows the necessity of integrating ecological civilization knowledge into other courses

3.5 Countermeasures and Suggestions for Enhancing Ecological Civilization Education in Colleges and Universities

When asked about the forces needed for ecological civilization education, 58.16% of the respondents believed that the education department was needed, 57.32% thought that student organizations were needed, 57.74% believed that social organizations were needed, and 71.55% believed that the above three were needed. Overall, college students believe that to further promote ecological

civilization education among college students, efforts from multiple parties are needed to leverage the effect of collaborative education.

Question: What forces do you think are needed to promote ecological civilization education among college students?

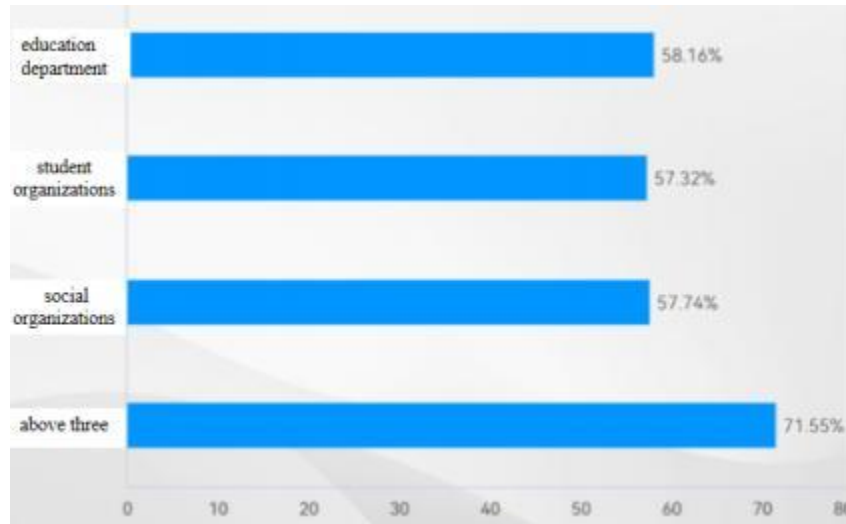


Figure 7. What forces are needed to participate in ecological civilization education

Regarding the current problems in ecological civilization education for college students, 40.59% of the respondents believe that it is due to the negative impact of the social environment, 32.22% think that students themselves do not attach enough importance to it, 14.64% believe that the teaching staff is weak, and 12.55% believe that schools do not attach enough importance to it. Question: What do you think are the main problems currently faced by college students in ecological civilization education?

Table 5. Problems Faced by ecological Civilization Education for college Students

problems	Ratio
Schools do not attach enough importance to it.	12.55%
The teaching staff is weak.	14.64%
The negative impact of the social environment.	40.59%
Students themselves do not attach enough importance to it.	32.22%

4. Problems existing in ecological civilization education for college students

4.1 The proportion of ecological civilization education in the content of college courses is not large

In higher education, apart from ideological and political courses, the proportion of ecological protection content involved in other courses is small. The content referred to ideological and political courses is also limited in length, resulting in very few channels for college students to acquire knowledge about ecological civilization. In a survey on whether it is necessary to integrate ecological civilization knowledge into ideological and political courses in college students' majors, 76.57% of the students chose that it is highly necessary to incorporate it. It is evident that the courses set up by universities in our country are still far from sufficient in terms of ecological civilization publicity and education, and cannot effectively meet the current demands of ecological civilization construction in our country.

4.2 Ecological civilization education is negatively influenced by the social environment

Marx once said that human survival and development are influenced by the environment, and the social environment has a significant impact on people's practical activities. Based on the above questionnaire survey, 40.59% of college students believe that the main problem currently faced by ecological civilization education for college students is the negative impact of the social environment. Due to the rapid development of self-media, college students have a wide range of information sources and are highly sensitive to the development trends of society, making them easily influenced by social customs and the environment. Especially, the negative social atmosphere and environment have a significant negative impact on college students whose values are still not yet set. Moreover, they do not attach enough importance to ecological environment education and have an indifferent attitude towards it.

4.3 College students have insufficient awareness of the main body of ecological civilization

At present, the ecological civilization awareness level of college students is relatively low and their participation awareness is insufficient. To achieve good results in ecological civilization education for college students, it is also necessary to give full play to their subjectivity and enthusiasm. Many college students have the mentality of seeking quick success and instant benefits, believing that the ecological environment brings no substantial benefits to their development. They lack a profound understanding of the importance and urgency of ecological civilization education, which leads to a negative and passive attitude towards it, and they are reluctant to spend energy and time learning about ecological civilization knowledge and carrying out ecological civilization practical activities. It has affected the effectiveness of ecological civilization education and practice.

5. Specific countermeasures for enhancing ecological civilization education among college students

5.1 Enhance the emphasis placed on ecological civilization education in college courses

At present, ecological civilization education for college students mainly focuses on

ideological and political theory courses. However, there are not many chapters related to ecological civilization knowledge covered in ideological and political theory courses, and the content is not rich enough. In the teaching content of other courses, ecological civilization-related knowledge is rarely involved. To achieve good educational outcomes, it is necessary to enhance the importance attached to ecological civilization education in colleges and universities and strengthen the curriculum design. Colleges and universities should incorporate ecological civilization education into their curriculum systems, enhance the relevant content about ecological civilization in ideological and political courses and other courses, and ensure that ecological concepts are deeply rooted in students' minds. In addition, specialized ecological civilization courses can also be introduced to enable students to have a more comprehensive understanding of ecological environment issues and the significance of ecological civilization construction.

5.2 Create a positive educational environment for ecological civilization

A good social environment has a subtle influence on college students. The education department, society, schools and college students should work together to create a green and environmentally friendly atmosphere, allowing students to fully feel the importance of ecological civilization and thereby strengthen their ecological civilization concepts. First of all, in the current era of advanced Internet development, it is necessary to give full play to the collaborative role of courses, cultivate students' concepts of standardized Internet use, and help them use the Internet scientifically, so as to contribute to their personal growth and success, truly exert the educational function of the social environment, and enhance college students' attention to our living environment. Secondly, college students live on university campuses. Besides the education and dissemination of ecological civilization in the classroom, it is also necessary to create a green and beautiful campus atmosphere of ecological beauty and life beauty through forms that are popular among college students, such as posters, display Windows, and short videos, to help college students establish a scientific view of ecological civilization. Create a campus cultural atmosphere. Finally, by taking the construction of a green and beautiful campus and society as an educational opportunity, we should give full play to the sense of ownership of college students, break down the construction tasks into projects, give full play to the leading role of college students, let students truly participate, externalize

the awareness of ecological civilization in their actions, and create an atmosphere where everyone is responsible and participates.

5.3 Diversify the approaches to ecological civilization education

Ecological civilization education is a systematic and complex project that requires overall planning with holistic thinking and the realization of the collaborative efforts of all factors in ecological civilization education in educational practice. [4] Enhance the educational effect of ecological civilization education in colleges and universities through the integration of multiple channels.

Firstly, strengthen the emotional education on ecological civilization for college students and awaken their sense of responsibility for building an ecological civilization. The focus and breakthrough point of ecological civilization education in colleges and universities lies in breaking down the emotional barrier between humans and nature, cultivating and stimulating college students' love for all things in nature, aesthetic attitude and sense of awe, internalizing and solidifying their ecological civilization ideology, and providing sufficient internal driving force for their ecological protection actions. [3] Through pictures, promotional banners, videos and other means, let college students truly feel the current crisis faced by the ecological environment and recognize the urgency of protecting the ecological environment. At the same time, by presenting a living environment with good ecological conditions and beautiful scenery, college students can realize the importance of protecting the ecological environment for their personal lives and the sustainable development of the country.

Secondly, build a volunteer service platform to enhance college students' awareness of ecological civilization. College student volunteers gain a sense of spiritual satisfaction and achievement from it, which is more conducive to stimulating their spirit of dedication, transforming passivity into initiative, forming a virtuous cycle. [7] Colleges and universities should actively carry out a variety of extracurricular activities, guide students to participate in environmental protection activities, community services, etc., start from things around them, and strengthen ecological civilization education through practical means. Meanwhile, schools can invite experts and volunteers to organize activities such as lectures and symposiums to share experiences and stories of ecological civilization construction and inspire students' awareness of ecological civilization.

6. Conclusion

There is no outsider in the construction of ecological civilization. Each of us has an inescapable responsibility. Just as the "High-level Forum on China's Ecological Civilization

Construction - Guangzhou Declaration" advocates: "Strive to be an active advocate, an enthusiastic propagander and a loyal practitioner of ecological civilization construction." [9] As the backbone of future social development, college students should possess the ability to recognize and express ecological concepts and behaviors. This study conducted an investigation and exploration on ecological civilization education for college students. The investigation results show that there are still many problems in ecological civilization education in colleges and universities, and there is still much room for improvement in the current situation of college students' knowledge and practice of ecological civilization. These issues require us to approach them from multiple perspectives and strive to find ways for improvement and enhancement. Colleges and universities should attach greater importance to ecological civilization education, organically integrate it into their curricula, give full play to the role of courses in the process of ecological civilization education, create a positive ecological education environment, and achieve diversified approaches to ecological civilization education. For ecological civilization education in colleges and universities, we need to constantly innovate ideas and methods, enhance the popularity and coverage of ecological civilization education, better cultivate high-quality talents that meet the development requirements of the new era, and contribute to achieving long-term results in the construction of a green and beautiful society.

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