

Research on Current Situation and Countermeasures of Sustainable Development Education in Primary and Secondary Schools in China

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Abstract—In the past two decades, sustainable development has become a widely discussed theoretical concept. By comparing the concept and implementation of sustainable development education in different countries, this paper concludes that the Chinese sustainable development education, especially in primary and secondary schools lack sufficient themes, investment, and attention from both the government and the society. Finally, the authors put forth suggestions that it is urgent that government, school and teachers each should provide enough input into the implementation of sustainable education in China.

Keywords—sustainable development education; China; middle and primary school

I. INTRODUCTION

The term "sustainable development" appeared in the Rio Declaration of 1992, which was adopted at the World Conference on Environment and Development and made it clear that sustainable development focuses on human beings and helps them live in harmony with nature. The Ten-Year Programme of Education for Sustainable Development launched by the United Nations in 2005 emphasizes the importance of sustainable development to the education sector in all countries of the world. According to the definition of the World Commission on Environment and Development, the goal of sustainable development is to meet current needs without compromising the ability of future generations to meet their own needs. Today, sustainable development has been extensively supplemented to 17 projects of the three pillars of sustainability (ecology, economy, society and culture)[1].

As early as 1978, China had an embryonic form of sustainable development education. Although environmental education is only involved in sustainable development education in China, the Central Committee of the Communist Party of China approved the Key Points of Environmental

Protection Work of the Environmental Protection Group of the State Council and mentioned that environmental protection education should be integrated into the syllabus of primary and secondary education[2]. In 1998, the UNESCO Committee of China officially implemented the EPD Project in China, also known as Education for Environment, Population and Sustainable Development, which is part of the United Nations Sustainable Development Education Project. In 2005, the United Nations adopted the Ten-Year Programme of Education for Sustainable Development, and China responded positively to the formal transition from EPD education to ESD education. Germany, Britain, Finland, Australia, Sweden and Japan have rich experience in sustainable development education and teaching.

II. WORLD SUSTAINABLE DEVELOPMENT EDUCATION

Many foreign governments have set up special institutions to focus on the research of sustainable development education. In response to the United Nations Ten-Year Plan for Sustainable Development, they have formulated educational plans adapted to their own countries, compiled relevant textbooks for students to use, actively searched for ways to infiltrate sustainable development education into traditional education disciplines, and carried out abundant extracurricular activities to help students understanding its philosophy better[3].

By integrating sustainable development education into traditional disciplines, compiling interesting and knowledgeable textbooks, and dispersing the knowledge points, so that students can better learn relevant knowledge. But in this mode, foreign schools also pay special attention to extracurricular practice teaching. Through practice, let students learn to think independently about sustainable development issues. And even for some senior students, teachers will lead students to research related topics. The government is also

generous in its financial expenditure. Conditional countries will build green facilities inside schools, such as using clean energy and cleaning their own sewage through underground cleaning devices. The social level also attaches great importance to sustainable development education in primary and secondary schools. Social organizations spontaneously provide textbooks and facilities for the study of sustainable development education curriculum in primary and secondary schools in order to ensure the implementation of sustainable development education going on wheels.

III. CURRENT SITUATION IN CHINA

A. Project Development in China

A project named EPD (Environmental Population and Sustainable Development Education) is carried out in China in the field of sustainable development education. At the beginning of the 20th century, under the leadership of the UNESCO Committee, some primary and secondary schools in Beijing took the lead in implementing the project, and then more than 1000 experimental schools in 14 provinces, including Shanghai, Jiangsu, Shandong, Zhejiang, Guangdong, Hunan, Hebei and Inner Mongolia, promoted sustainable development education and integrated it into the primary and secondary education syllabus[4]. The project has achieved great results, and has given nearly 100,000 educators in China the opportunity to participate in the project experiment and discuss together[5].

B. Special Educational Outline in China

China's sustainable development education in primary and secondary schools is mainly permeable education, and special lectures are held regularly. By arousing students' interest in learning, learn to understand independently the interrelationship between human and nature, biology and society, and then think independently of social phenomena and environmental problems, so as to correctly implement the concept of environmental education.

At present, environmental education is the main part of sustainable development education in China, so the design of environmental education syllabus is divided into objectives. We can see that our country has different requirements for students of different ages. For the younger students, it is mainly to guide them to understand nature. For the students of grade 4-6, it is required that they find the connection between human beings and nature. In junior high school, they should learn to think independently. They should not only think about themselves but also the whole world. The requirements for high school are more extensive and complex, involving economic, policy and even ethical aspects.

C. Problems in China

All countries in the world actively carry out sustainable development education and integrate it into traditional education disciplines to promote sustainable development in their own countries. Our country started relatively late, and there are several problems as follows.

- Fewer Themes. The main focus of primary and secondary education in China is only in the environment. Partnerships for achieving goals and other more

economic and social issues rarely appear in the design of sustainable development education syllabus.

- Insufficient government investment. At present, China has not set up separate projects and allocated subsidies for environmental education and even sustainable development education.
- Insufficient Social Attention. Although China has issued *The National Outline of Action for Environmental Publicity and Education* in the 1990s[3], the document points out that the improvement of citizens' awareness of environmental protection should be put on the agenda as soon as possible, it seems that the government for environmental protection is only at the level of increasing publicity efforts, failing to enable most citizens to understand the importance of environmental protection education in a deeper level and to exert themselves. From January to February 2018 in Guangdong, the results of a random questionnaire by the author of this paper show that Chinese citizens are not very concerned about sustainable development, and the proportion of people who express concern is only between 25% and 30%[4].
- Teaching Methods not Updated. In our country, environmental education as a part of the sustainable development education system, although it has a certain history in integrating into the traditional syllabus or design of our country, it has not achieved much improvement in form. In our country, infiltration teaching is mainly adopted in environmental education. The knowledge absorbed by students is scattered, and it is difficult to understand the content systematically and thoroughly. In Germany, Japan and other countries, they also pay attention to extracurricular practice activities, so as to help students better absorb knowledge [4]. The implementation of sustainable development education in Guangdong is not optimistic [5]. Only 55.65% of the people said that they had received sustainable development education after class. At the same time, 60% of the people said that they had no relevant education experience [5].

From the above analysis, we can see that although China has begun the practice of integrating environmental education into the syllabus at the end of the last century, it only covers a small part of environmental education in the main theme of sustainable development education. China's sustainable development education is not comprehensive enough and relatively not yet available. Enough attention should be paid to it.

IV. COUNTERMEASURES

Comparing the attitudes and implementation of sustainable development education in primary and secondary schools in foreign countries, this paper argues that the current sustainable development education in China should be improved from the following aspects:

A. About Government

- **Strengthen Theoretical Research.** At present, there is still not a formal syllabus of sustainable development education suitable for China's national conditions.
- **Providing Policy and Financial Support.** In order to help sustainable development education better implement in the syllabus of primary and secondary schools, the government, as an important guarantee to promote sustainable development education, should give sufficient support policies and financial support to encourage schools to face challenges in the process of integrating sustainable development education into practice.
- **Compiling Interesting Textbooks.** Compiling textbooks adapted to their national conditions and the progress of sustainable development education, the government can compile different interesting textbooks according to students of different age stages. The awareness of environmental protection and for senior students can increase the difficulty appropriately, focusing on cultivating the independent thinking ability of senior students, thinking about how to achieve social and environmental sustainability [6].

B. About School

- **Teacher Training.** Regular knowledge training for teachers on sustainable development education can help teachers to help students better absorb sustainable development knowledge while improving teachers' knowledge level and teaching level.
- **Keep Pace With Time.** Although our country pays more and more attention to sustainable development education, we should keep pace with the times in sustainable development education. Faced with the rapid development of the Internet today, for example, we can combine sustainable development with network media, learn Finland, establish a website to promote sustainable development education and find more media platforms to integrate education to promote sustainable development education.
- **Integrating into Campus Life.** You can learn from Sweden, where conditions permit, the school will work hard on the concept of sustainable design of its own teaching facilities and venues. First, we can build characteristic botanical gardens, use organic manure fertilizer to plant, regularly guide students to visit, as extracurricular practice activities, knowledge into the game to impart, increase the utilization rate of knowledge, help students better absorb.

C. About Teacher

- **Actively Explore the Curriculum.** For educators themselves, the backwardness and rigidity of teaching methods is a common problem. Facing international mainstream teaching methods, China is still in a period of exploration. When there is a contradiction between sustainable development education and traditional

syllabus, it requires educators to grasp the common points between them, actively explore how sustainable development education should be carried out in Chinese schools, and find a sustainable development education curriculum program suitable for our national conditions.

- **Teaching in Accordance with Aptitude.** Every individual is unique. This requires educators to find these unsuitable students in time and help students integrate into sustainable development faster by changing the teaching mode. Teaching environment of the exhibition.

V. CONCLUSION

As one of the important goals of our future education, sustainable development education still has a long way to go. It is believed that with the deepening of the research on integrating the concept of sustainable development education into the teaching of primary and secondary schools in various countries, it will have a more profound impact on the educational circles of our country [7]. Our understanding and application of sustainable development education will continue to improve. We also hope that in the future, our country will find a point of convergence as soon as possible in the face of the collision between traditional teaching methods and sustainable development education. Good blending together, out of the road of sustainable development education with Chinese characteristics.

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