

# Problems and countermeasures on the cultivation of compound international talents for environmental majors in universities

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**Abstract:** Under the vision of quality education reform, new requirements have been put forward for college education and teaching. For environmental students, apart from mastering basic knowledge and practical skills, they should also expand their international vision and cultivate their international consciousness, and finally cultivate them into compound international talents. However, due to the limitations of various practical factors, there are many problems in the actual training process of environmental students, which virtually limits the further improvement of the quality of professional talent cultivation, and ultimately is not conducive to the follow-up development of students. In view of this tendency, colleges and universities need to combine the changes in the international situation, the demand of the talent market and the characteristics of professional teaching to build a security system for the cultivation of composite international talents, clarify the specific content of the security system, and finally achieve good teaching results.

**Key words:** colleges and universities; Environment major; Compound talents; International talents; Talent training

## Introduction

With the rapid development of social economy and the continuous improvement of international status, open education plays an important role in the whole education system, which can indirectly promote national construction and promote the development of The Times, and realize mutually beneficial cooperation and exchanges and mutual learning with other countries in the field of education. The “13th Five-Year Plan” energy conservation and emission reduction comprehensive work Plan issued by The State Council clearly states that energy conservation and emission reduction work need to be used as the overall way and starting point to optimize economic structure, promote green and circular development, and accelerate the construction of ecological civilization, so as to actively promote the further development of domestic energy conservation and environmental protection industry. In order to achieve good construction results, it is necessary to actively promote the international cooperation and exchange of environmental protection industry, and at the same time, clear requirements are put forward for the internationalization of environmental professional personnel training. Colleges and universities need to take full account of the comprehensive and intersectional characteristics of environmental majors to explore the practice path of penetrating international education, which can ultimately expand students’ international vision and cultivate their international thinking. How to propose specific training paths on the basis of analyzing the existing problems in the cultivation of compound international talents for environmental majors is an important issue that teachers need to solve urgently. This paper will carry out an in-depth exploration on this issue.

## 1. The practical significance of the cultivation of compound international talents for environmental majors in universities

First, to meet the talent needs of green economy transformation and upgrading. Since the 18th CPC, ecological civilization has been included in the strategic layout, thus creating space for the development of environmental protection industry. The “China Environmental Protection Industry Development Status Report (2021)” shows that the national environmental protection revenue in 2020 is about 195 million yuan, an increase of about 7.3% compared with 2019, of which the environmental service revenue is about 120 million yuan, an increase of about 9.7%. It can be seen that the environmental protection industry has gradually developed into a new pillar industry in China. In order to be in line with international demand, colleges and universities need to undertake the heavy responsibility of cultivating international environmental protection talents. Second, improve the training model for environmental professionals. The cultivation of talents is mostly realized in the actual teaching process, and the international transformation of teaching philosophy, curriculum system and teaching program is an important prerequisite and way to train national talents. Therefore, to cultivate compound international environment professionals, it is necessary to integrate international environmental design concepts and teaching methods into the construction of the curriculum system, so as to strengthen international education in the teaching of professional courses, and finally integrate teaching resources under the guidance of advanced teaching ideas, improve the talent training mechanism, and integrate high-quality education resources at home and abroad with the idea of education internationalization. To innovate the mechanism for talent training, so as to realize the cultivation of compound international talents.

## 2. Analysis on the training of compound international talents for environmental majors in colleges and universities

### (1) Single mode of personnel training

In the process of education and teaching, colleges and universities need to cultivate compound talents who can serve regional economic development, so that the talent training program should be gradually changed from holistic education to personalized education. However, combined with the actual teaching situation, it can be seen that the traditional mode of talent training is difficult to accurately match the needs of compound international talents training under the “Belt and Road” initiative. First, colleges and universities have not penetrated

the concept of international education into the process of talent training, which leads to the lack of overall planning in the formulation of training programs and strategies for interdisciplinary international talents, and the lack of integration with the development of cross-border enterprises and industries to improve the training programs, which ultimately leads to the mismatch between talent training and actual needs. Secondly, the goals of compound talents training formulated by colleges and universities are not clear enough. Especially in the teaching process of environmental majors, the professional curriculum system construction process does not learn from and learn the advantages of other countries' professional curriculum, and does not carry out infrastructure construction and cultural courses for countries along the "Belt and Road", and ultimately fails to meet the needs of national industries for complex national talents. Third, the international talent training measures can not be effectively implemented. Nowadays, many colleges and universities will carry out international cooperation and exchange meetings, exchange students, Sino-foreign cooperation in education and other forms to cultivate international talents. However, the above teaching strategies are deeply affected by foreign politics and international situation, and it is difficult to be effectively guaranteed, and ultimately, the expected results of talent training cannot be achieved.

#### (2) Insufficient construction of teaching staff

Colleges and universities should fully realize that the international teaching staff is the guarantee for cultivating compound international talents. Under the background of the "double high" plan, colleges and universities need to actively carry out the construction of "double qualified" teachers. However, due to the limitations of their own educational level, capital investment, teacher training mechanism and other factors, teachers lack international vision and awareness, and can not well penetrate the international education concept into the teaching of professional courses. On the one hand, there are few opportunities for teachers to study abroad or participate in international exchanges, which makes it difficult for them to have a deep understanding of the education, economy and culture of other countries, and at the same time, it is impossible to improve their international vision. On the other hand, colleges and universities lack teachers with both solid professional knowledge and oral English ability, which makes professional teachers unable to provide high-quality teaching services for students.

#### (3) The construction of the curriculum system lags behind

Nowadays, the mismatch between the environmental professional curriculum system built by colleges and universities and the training goals of compound international talents has become increasingly prominent. The two elements of "internationalization" and "compound" have not been integrated into the curriculum system and the teaching plan. First, the teaching concept of international curriculum is unclear, and the curriculum is not considered from a macro perspective, resulting in a single curriculum structure, which cannot be closely connected with international standards. In addition, colleges and universities do not introduce diversified international resources in the construction of international courses, but only introduce foreign textbooks and courses, and do not introduce international curriculum evaluation standards, teaching standards, and vocational qualification certification. Second, the construction of curriculum system lacks of compound. Nowadays, the curriculum system constructed by colleges and universities pays more attention to the combination of basic knowledge and ability quality, rather than the combination of majors, languages and cultures from an international perspective.

### **3. Countermeasures for the cultivation of compound international talents for environmental majors in colleges and universities**

#### (1) Strengthen top-level design and establish the concept of international development

Based on the social environment of globalization, the demand for high-quality international talents is surging. In order to achieve the training goal of professional and composite international talents, environmental majors in universities and colleges need to set up international development concepts from the top-level design for the management and decision-making level of universities and colleges, so that they can have a deep understanding of the connotation of international education, and strengthen the planning and clarity of the development direction of universities and colleges. To provide talent cultivation services for the construction of "The Belt and Road", accelerate the construction of compound international talent training mechanism, and implement the concept of international development into all aspects of talent training. First of all, colleges and universities need to fully realize the important value of the "double high Plan" and internationalization construction for the long-term development of the university, and make clear the starting point and landing point of the internationalization development strategy. To be specific, universities should establish a coordination mechanism for internationalization work according to the actual development of the university, and further set up functional departments responsible for international cooperation services such as international colleges and foreign relations departments. At the same time, attention should be paid to the formulation of the relevant management system to ensure that the coverage of the management system and guarantee mechanism covers various aspects such as international cooperation in running a school, the training of international students, and international project cooperation. Secondly, colleges and universities also need to combine the actual development of schools, stand in the long-term development perspective, clear international development goals, and based on this to formulate a scientific international development path, training more compound international talents, play their own service functions, help the construction of "One Belt and One Road", and provide high-quality talent foundation for Chinese enterprises to "go out".

#### (2) Optimize the training program to ensure the quality of talent training

In the process of implementing the training mode of compound international talents, environmental majors in colleges and universities also need to attach importance to the construction of talent training programs and speed up the construction of curriculum system suitable for compound international talents training, which is the basis for ensuring the quality of talent training. To be specific, first of all, according

to the future development direction of college students majoring in environment, differentiated talent training goals and methods can be set according to the directions of going abroad for further study, domestic postgraduate study or employment and entrepreneurship, so as to meet the different learning needs of students and train different types of international environmental talents. Secondly, the curriculum system of “Foreign language + professional courses” should be actively set up, and English courses related to environmental majors should be added to improve students’ professional English level, promote the comprehensive improvement of their international communication ability and professional ability, and effectively realize the cultivation of international talents. In addition, colleges and universities should further strengthen exchanges and cooperation with foreign colleges and universities, set up credit mutual recognition module, for the degree, curriculum and other projects to package docking, to ensure the integrity of students’ learning phase.

### (3) Strengthen the construction of teachers and build an international faculty team

Teachers have an important impact on the cultivation of talents. The shortage of international teachers is a major problem that needs to be urgently solved in the process of the cultivation of international talents in universities. In this regard, in order to cultivate compound international talents for environmental majors in colleges and universities, it is necessary for colleges and universities to pay attention to the introduction and training of international teachers for environmental majors and build an international teacher team. First of all, colleges and universities should attach importance to the combination of “bringing in” and “going out”, actively introduce excellent foreign teachers, and encourage teachers to participate in overseas training, so as to improve the overall internationalization level of teachers and provide more professional guidance for students’ international training. Secondly, colleges and universities should actively build diversified international cooperation platforms to enhance the exchanges between colleges and universities at home and abroad as well as the exchanges with foreign enterprises. On the one hand, it can promote the cooperation and exchanges between teachers of environmental majors and teachers of similar majors abroad, so as to draw on the excellent experience of foreign environmental talents training and effectively improve the training level of compound international talents of environmental majors in colleges and universities. On the other hand, based on foreign environmental enterprises, teachers can understand the current international demand for environmental talents, and then provide a reliable reference for teachers’ subsequent teaching optimization. In addition, colleges and universities should also give full play to the advantages of the “1+X” certificate system, and on the basis of in-depth cooperation between schools and enterprises, jointly explore internationalization channels, let teachers participate in foreign cooperation projects of enterprises, and realize the comprehensive improvement of teachers’ international literacy and professional ability in this process, enhance the overall level of teachers, and realize the effective construction of international teacher teams.

## 4. Conclusion

To sum up, with the rapid development of social economy, China’s economy is gradually developing toward globalization. At the same time, the demand for international talents is surging. As an important production place for high-quality applied talents in our country, how to promote the high-quality and international development of education and cultivate professional and compound international talents has become an important direction for colleges and universities to explore. For environmental majors in colleges and universities, they should start from the directions of strengthening top-level design, optimizing training programs, strengthening teacher construction, and building international talent training standards, and constantly promote the optimization and construction of the training mode of compound international talents, promote the overall international development of the university, and devote themselves to serving the construction of “The Belt and Road”. Lay a talent foundation for domestic environmental enterprises to “go global”.

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