

Strategies for International Education and Talent Cultivation between China and Central and Eastern European countries in the Context of The Belt and the Road

Nan Xu

School of Economics & Management, Xidian University, Xi'an 710071, China

Abstract: *This paper analyzes the history, situation, problems and key points of studying in china and talent cultivation of Central and Eastern European countries, and proposes four strategies, that is : Innovate the mode of studying in china and talent cultivation under the new circumstance, Enhance the attractiveness of people to people exchanges and improve the influence and effectiveness of studying in China, Make full use of information technology and the tremendous function of artificial intelligence in empowering international education and talent cultivation, Promote the cultivation and employment of high-level students studying in china through the construction of "double first-class" universities.*

Keywords: *The Belt and the Road; Central and Eastern European countries; studying in china; talent cultivation*

1. Introduction

In September and October 2013, Chinese President XI JINPING respectively proposed the construction of the "New Silk Road Economic Belt" and the "21st Century Maritime Silk Road". "16+1 Cooperation" became an important component of the "Belt and Road" construction. In 2016, Ministry of Education of China issued the Education Action to Promote the Construction of One Belt, One Road, calling on countries along the One Belt, One Road to strengthen education cooperation, promote people-to-people exchanges, realize talent support and common development. In recent years, education exchanges and cooperation between China and Central and Eastern European countries(Central and Eastern European Countries) have progressed smoothly, with remarkable results in student exchanges, inter-university cooperation, talent cultivation, language teaching cooperation and mutual recognition of academic degrees, providing strong support for the high and healthy development of the China-Central and Eastern European countries cooperation mechanism. In 2019, the "16 +1 cooperation" mechanism welcomed its first expansion. Greece's accession upgraded the "16 +1" to "17 +1", injecting new vitality into the mechanism. In 2021, China-Central and Eastern European countries Leaders Summit reached fruitful outcomes in education. In this context, the cooperation between, China-Central and Eastern European countries has also shown a momentum of vigorous development in studying in china and talent cultivation.

2. Analysis of the situation related to the Study in china and talent Cultivation of Central and Eastern European countries

2.1 Studying in china overall

According to statistics, a total of 492,185 foreign students of various types from 196 countries and regions studied in 1,004 institutions of higher education in 31 provinces (autonomous regions and municipalities) across China in 2018-2019, an increase of 3,013 students or 0.62% over 2017-2018. Among them, 63,041 were Chinese government scholarship students, accounting for 12.81% of the total number of international students in china; 429,144 were other international students, accounting for 87.19% of the total number of international students in china. There were 241,500 degree students, accounting for 49.38% of the total, an increase of 15.04% year-on-year. The total number of master's and doctoral students was 85,062. Affected by the global COVID-19 epidemic, the number of international students in China declined for two consecutive years from 2020 to 2021, signifying a

phase of structural and stable growth. 2019 witnessed a total of 703,500 students abroad, and the imbalance between the number of students study abroad and studying in china was 211,300.

Table 1 Growth index chart for main study abroad destination

Rank	Country	Rate of growth in 2017	Rate of growth in 2018	Rate of growth in 2019	Rate of growth in 2020-2021
1	U.S	3.4	1.5	0.05	-1.80
2	U.K	0.9	1.1	-2.00	Negative value
3	China	11.4	10.5	0.6	Negative value
4	Australia	12.1	13.5	13.1	Negative value
5	France	4.6	6.0	0	Negative value
6	Canada	18.3	18.8	17.5	Negative value
7	Russia	4.7	5.7	6.8	Negative value
8	Germany	6.6	5.5	6.2	Negative value

Data source: AIIE, Project Atlas (2019 release) The Open Doors Report 2020

2.2 Situation concerning studying in china in countries along the One Belt, One Road and Central and Eastern European countries.

At present, there are 317,200 international students from countries along the Belt and Road studying in China. In 2019, the proportion of international students from countries along the Belt and Road studying in China reached 54.1%, of which the proportion of academic students studying in China reached 54.6%. The top 11 countries along the Belt and Road studying in China are Thailand, Pakistan, India, Russia, Indonesia, Laos, Kazakhstan, Vietnam, Bangladesh, Mongolia and Malaysia, and the international students from South Asia, Southeast Asia and Central Asia account for 80% of the international students from the countries along the Belt and Road. From 2010 to 2017, there were 25,615 graduate students from Central and Eastern European countries studying in China, with an annual growth rate of more than 20%, ranking 4th after West Asia and Africa, East Asia and Central Asia along the countries region of the Belt and Road , keeping at a medium level. In 2017, there were 10,600 international students in china from Central and Eastern European countries, accounting for 7.31% of the ratio of international students coming to China from countries along the Belt and Road, which is much lower than the balanced value of 26.15% according to the number of countries along the Belt and Road. in the ranking of the average annual growth rate of the number of international students in China from countries along the Belt and Road from 2000 to 2017, the Czech Republic ranked 4th with 30.47% growth rate.

Table 2 Statistical data concerning China-Central and Eastern European countries flow of tertiary-level students

Country	Out bond mobility ratio	Total number of mobile students abroad	Total number of mobile students hosted
China	2.3	1061511	225100
Poland	1.8	25092	55191
Czech	3.7	11932	45871
Slovakia	15.7	22052	12730
Hungary	4.6	13038	35479
Slovenia	13.5	10266	5071
Croatia	6.2	10174	5722
Romania	6.6	35172	30294
Bulgaria	10.8	24749	16499
Serbia	5.2	13013	11419
Montenegro	23.0	5226	/
North Macedonia	9.5	6942	3096
Bosnia and Hercegovina	17.0	15096	5454
Albania	8.0	11072	2246
Estonia	8.0	3626	5043
Lithuania	9.4	10463	6697
Latvia	6.2	4982	8380
Greece	5.0	39632	27789

Data source: UNESCO Institute for Statistics

2.3 Situation concerning cooperation in running schools and projects in China-Central and Eastern European countries, China-UK, China-Germany and China-France

In 2019, there are 12 ordinary colleges and universities in China with legal person status for Chinese-foreign cooperative education institutions, and no Chinese-foreign cooperative education institutions with legal person status have been established with Central and Eastern European countries. In 2020, nearly 2,300 Chinese-foreign cooperation in running schools and projects at various levels have been approved and filed by the Ministry of Education of China, including nearly 1,200 schools and projects above the undergraduate level, and nearly 18 cooperation in running schools (non-independent legal persons) and projects with Central and Eastern European countries, which including 5 postgraduate education projects. By contrast, the total number of cooperation in running schools and projects in the UK, France and Germany is 312, about 17.33 times that of the 17 Central and Eastern European countries (including Greece), and the number of postgraduate projects is 68, 13.60 times that of the 17 Central and Eastern European countries (including Greece).

Table 3 Statistical data concerning China-Central and Eastern European countries cooperation in running schools and projects

Country	cooperation in running schools and projects	Cooperation education projects at undergraduate level	Cooperation education projects at postgraduate level
Poland	13	13	4
Czech	0	0	0
Slovakia	0	0	0
Hungary	3	3	0
Slovenia	0	0	0
Croatia	0	0	0
Romania	0	0	0
Bulgaria	1	1	0
Serbia	0	0	0
Montenegro	0	0	0
North Macedonia	0	0	0
Bosnia and Hercegovina	0	0	0
Albania	0	0	0
Estonia	0	0	0
Lithuania	1	1	0
Latvia	0	0	0
Greece	1	1	1
UK	238	213	25
France	72	43	29
Germany	70	56	14

• *Data source: Chinese-foreign cooperation in running schools information platform*

2.4 History and Current Situation of studying in china and Talent cultivation in China- Central and Eastern European countries

Since the 1950s, Chinese colleges and universities have begun to train students for Central and Eastern European countries languages. In 1954, Polish and Czech majors were first established at Peking University. In 1956, the two majors were transferred from Peking University to the then Beijing Russian Institute. In 1959, the Beijing Russian Institute merged with the BFSU (Beijing Foreign Studies University), and the Polish and Czech majors, along with the Romanian language major, which was established by the BFSU, were merged into a new department. In the early 1960s, BFSU established Hungarian, Bulgarian, Albanian, Serbian, and other language majors successively, becoming China's most prestigious university in Central and Eastern Europe languages. Central and Eastern European countries attach great importance to the cultivation of their own language students in China, and have been sending language experts to BFSU on a long-term basis to help with major construction in China. As a result of the changes in the international situation, from the mid-to-late 1960s, China's educational exchanges and cooperation with most Central and Eastern European

countries were severely affected and even came to the brink of stasis. It was not until the early 1980s, with the advance of China's reform and opening-up, that educational exchanges and cooperation between China and Central and Eastern European countries were gradually restored. However, for various reasons, the level of exchange and cooperation during this period remained low. Thanks to the transition of national system in the Central and Eastern European countries in the late 1980s and early 1990s, major positive changes were able to take place. Countries in Central and Eastern Europe have successively joined the Bologna process, with their higher education systems gradually moving closer to the European Union, the level of internationalization of education significantly improved, and private higher education enjoying rapid development. Yet at the same time, higher education in various countries were faced with problems such as budget crunches, brain drain, and a short supply of students. China's higher education has achieved rapid development during this period, and has achieved a historic transformation from elite education to popular education. The country's investment in higher education has increased significantly, and some universities have begun the transition towards becoming world-class universities. During this period, most Chinese universities paid more attention to exchanges and cooperation with universities in developed countries such as the United Kingdom and the United States. The universities in Central and Eastern European countries did not receive the attention they deserved. A new round of cooperation between universities in China and Central and Eastern European countries began in 2012. In April, the Chinese government announced 12 initiatives to promote cooperation with Central and Eastern European countries and put forward the four principles for promoting relations and the "16 +1 Cooperation" between China and Central and Eastern European countries. In September and October 2013, Chinese President XI JINPING respectively proposed the construction of the "New Silk Road Economic Belt" and the "21st Century Maritime Silk Road". "16+1 Cooperation" became an important component of the "Belt and Road" construction. In 2019, the "16 +1 cooperation" mechanism welcomed its first expansion. Greece's accession upgraded the "16 +1" to "17 +1", injecting new vitality into the mechanism. The "17 +1 Cooperation" includes politics, economy and trade, culture, tourism, education, youth, health, local development and other fields, and has achieved remarkable results in infrastructure, connectivity, capacity cooperation, financial cooperation, the green economy, etc. It can be seen that after decades of tortuous development, the education exchange and cooperation between China and Central and Eastern European countries has formed mechanisms and established platforms, the results of practical cooperation have begun to appear, academic research has made breakthrough, and there has been a certain degree of promotion and enhancement in the international education and talent cultivation , while there are also some issues and key points that need to be solved.

3. Issues analysis concerning studying in china and talent cultivation of Central and Eastern European countries

3.1 Uncertainties caused by the changes of the international situation and external environment to studying in china and talent cultivation of Central and Eastern European countries

The sudden global COVID-19 pandemic has produced serious impact on countries concerning political, economic, social and cultural impediments, and educational exchanges and cooperation are no exception. The above graph for the main study abroad destination clearly indicates that the vast majority of global study abroad education numbers are on a downward trend from 2020 to 2021. Central and Eastern European countries such as Poland, the Czech Republic, Hungary, Slovenia and Slovakia have been more severely affected by the epidemic and have tightened their epidemic control measures, which has also caused an impact on the flow of students studying in china .Currently ,China and Central and Eastern European countries are facing a low level of bilateral student mobility, this issue that has also increased uncertainty due to the unstable global situation of the COVID-19 epidemic.

3.2 The imbalance phenomenon between the level of economic development of Central and Eastern European countries and the quantity of students studying in china and the quality of talent cultivation emerge.

In terms of economic development, the majority of the 65 countries along the Belt and Road are middle- and even low-income countries, while the main countries among the high-income countries are the Central and Eastern European countries and the energy-rich West Asian countries. However, according to the analysis of the scale of the number of students studying in china from the

above-mentioned statistics data, the Central and Eastern European countries are not among the top countries along the Belt and Road, and the scale of the number of postgraduate students studying in china does not exceed 10,000 in any single country, which is not in line with the economic and educational development of levels of the Central and Eastern European countries. At the same time, in terms of the quality of talent cultivation, international students from Central and Eastern European countries mainly to study Chinese language, and the number of academic students is still low. In addition, the number of international students with academic qualifications is mainly undergraduate students, and the number of cooperative postgraduate education programs is relatively small, appearing the issue of low level of study abroad, which is a huge gap with the total number of programs of study abroad institutions in China and the total number of postgraduate level study abroad programs in the three western countries(UK,Germany,France) mentioned above, and the phenomenon of uneven regional development comes out prominently.

3.3 The input-output information gap between studying in china and talent cultivation due to the lack of deep awareness and understanding.

Chinese teachers and students do not have a deep understanding of the national culture, history, national psychology and customs of Central and Eastern European countries , and there are differences in the education philosophy, education system, education tradition and education level between Central and Eastern European countries and China; The information gaps between cooperative institutions and projects. Similarly, Central and Eastern European countries do not have an in-depth awareness and understanding of Chinese universities, leading to some countries are not strongly willing to encourage students to studying in china, and also there exists a gap between the real situation and the expected goal.

3.4 The quality of talent cultivation and assessment standard need further improvement.

The practice of Chinese-foreign cooperation in running schools and projects between China and Central and Eastern European countries is an important path to carry out international education and talent cultivation. However, how to ensure and improve the quality and standard is one of the challenges facing China and Central and Eastern European countries in terms of study abroad education. Particularly, the formulation of standards, assessment and evaluation methods and safeguards in the areas of admission, cultivation process, discipline setting, professional planning, employment guidance, further studies in degrees and the introduction of quality resources are not perfect, the targeted, innovative and practical model of cultivating talents for studying in china has not been fully established, lacking of tracking feedback on the status of cultivation and policy support related to the follow-up cultivation and employment of international students in the destination. According to a survey conducted by the British Council in 2017 among 26 countries around the world, China was rated as "low" in terms of quality assurance mechanisms and recognition of qualifications in higher education, while the US, UK and Germany were rated as "very high. The majority of international students from Central and Eastern European countries studying in China in 2017 were language students, and academic students only accounted for 27.1% of the total number of students studying in China, far lower than the total number of students studying in China in 2017. The average value of 49.38% of the total number of academic students in that year. Among them, only 9.7% were studying for undergraduate degrees, 14.1% for master's degrees and 3.3% for doctoral degrees.

4. Strategies for International Education and Talent Cultivation between China and Central and Eastern European countries in the Context of The Belt and the Road

4.1 Innovate the mode of studying in china and talent cultivation under the new circumstance

The COVID-19 epidemic has made varying degrees of impact on international education and talent cultivation both in china and Central and Eastern European countries, with greater challenges to achieving the education goals of the UN 2030 Agenda for Sustainable Development. One of the purpose indicates that further referring to the Education 2030 Framework for Action that lists a set of strategic approaches for the implementation of SDG 4, and which underlines that increasing access must be accompanied by measures that improve the quality and relevance of education and learning, and in particular that "education institutions and projects should be adequately and equitably resourced with safe, environment-friendly and easily accessible facilities; sufficient numbers of teachers and

educators of quality using learner-centred, active and collaborative pedagogical approaches; and books, other learning materials, open educational resources and technology that are non-discriminatory, learning conducive, learner friendly, context specific, cost effective and available to all learners – children, youth and adults”. Therefore, it is necessary to take the initiative to build a platform for cooperation between China and Central and Eastern European countries on studying in China and talent cultivation, deepening the reform of the system and mechanism of studying in China, innovating the ways of international exchange and cooperation, participating in the formulation of relevant rules and standards and research on major issues, giving full play to the incentive effect of government scholarships for students studying in China from Central and Eastern European countries to create a national brand of education for studying in China. The government scholarships for international students from Central and Eastern European countries should be given full play, and a national brand for education in China should be created. We should make full use of the existing mechanisms and platforms of the "17+1 Cooperation" and actively make use of the Research Fund for Relations between China and Central and Eastern European countries, the "China-Central and Eastern European countries Education Capacity Building Project" and the "China-Central and Eastern European countries Universities and Colleges". "China-Central and Eastern European countries Universities Joint Education Project", "LUBAN Workshop" joint construction plan, intellectual attraction projects, and seek support from the education administrations of Central and Eastern European countries and the EU Erasmus so as to make use of the platform and resources to truly promote study abroad education. In terms of talent cultivation, we should give full play to the important role of international cooperation in education, promoting the implementation of the UNESCO Convention on the Recognition of Qualifications in Higher Education in the Asia-Pacific Region, encouraging the mutual recognition of credits and joint award of degrees between China and Central and Eastern European countries, exploring models such as Chinese and foreign undergraduate and master's degree projects, Chinese and foreign dual-degree cultivation. It is necessary to accelerate the full coverage of mutual recognition of academic degrees with Central and Eastern European countries and promote a significant increase in the scale and quality of two-way studying abroad.

4.2 Enhance the attractiveness of people to people exchanges and improve the influence and effectiveness of studying in China

We will gain a deeper understanding of the political, economic, historical and cultural aspects of Central and Eastern European countries, familiarize ourselves with the national characters and psychology of Central and Eastern European countries, and understand their international status and interests. The purpose of the mutual cooperative education is to prompt the construction of "The Belt and The Road" and uphold the philosophy of the community of human destiny. More effective measures should be taken: to enhance the attractiveness of Chinese culture and Chinese language, to understand the needs and characteristics of international students from Central and Eastern European countries, to improve the education, management and services for international students, to provide more convenient working and living conditions for long- and short-term experts from Central and Eastern European countries. In the current educational exchange and cooperation between Chinese universities and universities in Central and Eastern European countries, many Chinese universities do not set up plenty of English courses, which limits the willingness of non-language students studying in china and affects the effectiveness of study abroad. Therefore, the proportion of study abroad programs and study abroad courses in English need be increase aims at ensuring desired effect of studying in china and talent cultivation.

4.3 Make full use of information technology and the tremendous function of artificial intelligence in empowering international education and talent cultivation.

Information technology in education is an inevitable choice for the development of education in an intelligent era, adhering to the core concept of deeper integration of information technology, achieving a more open, more suitable, more humanistic, more equal and more sustainable education aims. Similarly, artificial intelligence is a booming technological domain capable of altering every aspect of our social interactions. In education, AI has begun producing new teaching and learning solutions that are now undergoing testing in different contexts. Education plays a critical role in efforts to make future workforce AI-ready. Bridging the AI skills gap goes beyond the adoption of increasingly powerful technologies to facilitate learning. It also means rethinking the content and methods used to deliver instruction at all levels of education. Central and Eastern European countries are rich in educational resources, especially in agricultural education, animal medicine, automobile manufacturing,

biotechnology and other areas with strong research and education strength. China and Central and Eastern European countries should fully share and effectively use each other's online course resources, and exchange and learn from each other in terms of online and offline integrated teaching, such as : to provide large-scale online open courses, to actively use modern educational technology to promote distance online teaching, to introduce more high-quality course resources, to promote the application of information technology in new modes of education for international students such as STEAM education and creative education, to promote artificial intelligence to assist in the management of education for international students, to implement immersive, experiential and scenario-based learning, to establish models to analyze the knowledge and skill learning, cognitive needs, emotional states and feedback of international students, to provide personalized courses for international students, to enhance the information literacy, innovation awareness and innovation ability of international students, to promote the all-round development of international students.

4.4 Promote the cultivation and employment of high-level students studying in china through the construction of "double first-class" universities.

The goal of studying in china is to cultivate international, innovative and inter-disciplinary talents. A number of Chinese universities are currently engage in "double first-class" construction. Logically, the influence of first-class universities and disciplines should be given full play to enhance the soft power of education for students studying in china . Some universities in Central and Eastern European countries, such as Charles University of Prague in the Czech Republic, University of TARTU and University of Latvia in Estonia, and Aristotle University of Thessaloniki in Greece, have certain regional influence and strong strengths in engineering technology, life sciences and medicine, and arts and humanities. Chinese "double first-class" universities can explore with the above-mentioned universities in Central and Eastern European countries to cultivate high-level research talents in their advantageous disciplines and special disciplines, establishing academic exchange mechanisms between Chinese and Central and Eastern European countries, improving admission standards and research quality, cultivating the academic ability of postgraduate students studying in China, continuously increasing the scale and proportion of postgraduate students studying in China from Central and Eastern European countries . The scale and proportion of postgraduate students studying in China should be improved to form a two-way favorable cycle. In addition, it is necessary to attract students from Central and Eastern European countries to continue their studies and work in China after graduation. It is imperative to broaden the employment channels for students from Central and Eastern European countries and to increase the policy support and information services for the purpose of training all aspects of builders of "the Belt and Road" construction, which further releasing the educational dividends.

5. Conclusion

In recent years, education exchanges and cooperation between China and Central and Eastern European countries have progressed smoothly, with remarkable results especially in student exchanges and talent cultivation. Nevertheless, it still have several issues concerning studying in china and talent cultivation of Central and Eastern European countries. In the future work ,the four strategies could be taken: Innovate the mode of studying in china and talent cultivation under the new circumstance, Enhance the attractiveness of people to people exchanges and improve the influence and effectiveness of studying in China, Make full use of information technology and the tremendous function of artificial intelligence in empowering international education and talent cultivation, Promote the cultivation and employment of high-level students studying in china through the construction of "double first-class" universities.

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