# Международное сотрудничество в сфере образования. Образование в странах мира International cooperation in education. Education around the world

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## CHINESE MODEL OF INTERNATIONAL HIGHER EDUCATION COOPERATION: A CASE STUDY OF SINO-GERMAN HIGHER EDUCATION COOPERATION

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Abstract. With the development of higher education in China and the expansion of cooperation with other countries, Chinese higher education institutions are exploring the ways of international cooperation in the field of higher education. China and Germany are important partners in higher education. In recent years, Sino-German cooperation has demonstrated such characteristics as variety of forms, strong government support, and diverse goals of mutually beneficial cooperation. Sino-German higher education cooperation is a good example of China's model of international cooperation, which can be used as a guide to restore and promote Sino-foreign higher education cooperation in the post-epidemic era. The purpose of the article is to analyze the experience of cooperation between China and Germany in accordance with the developed model. The authors analyzed the current problems of interaction between China and Germany in the field of higher education and substantiated the need to resolve them. Currently, the EU is focusing on developing relations with China in the field of higher education, but in fact the EU has introduced many restrictions, which have narrowed the space for cooperation. The growing level of instability in Sino-European and Sino-German relations has caused the rapid development of Sino-German cooperation in the field of higher education to become a bottleneck. However, it is useful to effectively utilize new opportunities provided by the 50th anniversary of the establishment of diplomatic relations between China and Germany, to normalize international exchanges in post-epidemic era. The experience of Sino-German cooperation provided by many universities can promote the development of Sino-German relations in higher education.

*Keywords:* Chinese model, higher education, cooperation, Sino-German inter-university cooperation, post-epidemic era

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## КИТАЙСКАЯ МОДЕЛЬ МЕЖДУНАРОДНОГО СОТРУДНИЧЕСТВА В ОБЛАСТИ ВЫСШЕГО ОБРАЗОВАНИЯ: ТЕМАТИЧЕСКОЕ ИССЛЕДОВАНИЕ КИТАЙСКО-ГЕРМАНСКОГО СОТРУДНИЧЕСТВА В ОБЛАСТИ ВЫСШЕГО ОБРАЗОВАНИЯ

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Аннотация. С развитием высшего образования Китая и расширением сотрудничества с другими странами китайские высшие учебные заведения осваивают пути международного сотрудничества в области высшего образования. Китай и Германия являются важными партнерами в области высшего образования. В последние годы китайско-германское сотрудничество продемонстрировало такие характеристики как разнообразие форм, сильная государственная поддержка, разнообразные цели взаимовыгодного сотрудничества. Китайско-германское сотрудничество в области высшего образования является хорошим примером китайской модели международного сотрудничества, которая может быть использована в качестве ориентира для восстановления и продвижения китайско-иностранного сотрудничества в области высшего образования в постэпидемическую эпоху. Целью статьи является анализ опыта сотрудничества Китая и Германия в соответствии с разработанной моделью. Авторы проанализировали современные проблемы взаимодействия Китая и Германии в области высшего образования и обосновали необходимость их разрешения. В настоящее время ЕС делает акцент на развитие отношений с Китаем в области высшего образования, но на самом деле ЕС ввел множество ограничений в некоторых областях, что сузило пространство для сотрудничества. Растущий уровень нестабильности в китайско-европейских и китайско-германских отношениях привел к тому, что быстрое развитие китайско-германского сотрудничества в области высшего образования стало узким местом. Однако полезно эффективно использовать новые возможности, появившиеся за 50 лет дипломатических отношений между Китаем и Германией, нормализацию международных обменов после эпидемии, а опыт китайско-германского сотрудничества может способствовать развитию китайскогерманских отношений в области высшего образования.

*Ключевые слова:* китайская модель, сотрудничество в области высшего образования, китайскогерманское межуниверситетское сотрудничество, постэпидемическая эпоха

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#### Introduction

Higher education plays a fundamental, overarching and leading role in China's educational opening up, serving as a bridge for dialogue between China and foreign countries and a bond for exchanges and mutual learning among civilizations. International exchange and cooperation in higher education is an important force to overcome human problems and promote social and economic development, and creating a new pattern of foreign exchange and cooperation in higher education is the top priority of international cooperation in higher education at present [1]. Compared with developed countries, China's higher education cooperation with foreign countries has the characteristics of late start, weak foundation and rapid development. At the same time, China has the largest volume of higher education in the world, so it is very necessary to build an international higher education model that conforms to China's national conditions. The development of higher education institutions (HEIs) is related to the future overall development of higher education in China. The study shows that the overall efficiency of higher education in China has improved steadily. Efficiency

Change is the main driving force [2]. Among them, the reform of foreign higher education cooperation is the most important. China has long attached importance to the opening up of higher education and higher education cooperation with other countries, of which the Sino-German higher education cooperation is a typical representative. The EU – China Higher Education Cooperation Program in European studies and social sciences was a pioneer as well as a milestone in the field of higher education cooperation between the European Union and China. It promoted academic exchanges among scholars, expanded European Studies in China, and furthered the internationalization of Chinese universities. Many of the beneficiaries of the project would go on to distinguished and influential careers [3]. China has been sending students to Germany since 1974. In April 2002, the two countries signed the Agreement on the Mutual Recognition of the Equivalent Value of Higher Education, the first such agreement between China and a Western developed country [4]. The vision of the agreement is to further promote the cooperation between the two sides in the field of science and education, and to facilitate the students of higher education of the two countries to continue their studies in the other country, the signing of the agreement has greatly promoted the cooperation in higher education between China and Germany. In recent years, the COVID-19 epidemic has caused the obstruction of the flow of teachers and students between international universities, the stagnation of exchanges and visits between Chinese and foreign universities, and the suspension of the original cooperation projects between Chinese and foreign universities. Therefore, it is the common demand of Chinese and foreign higher education institutions to restore and develop the original international cooperation and exchange in the "post-epidemic era". Giving full play to the advantages and exemplary role of China-Germany higher education cooperation can build a new pattern of higher education exchange and cooperation with foreign countries in the post-epidemic era, and form a new model of international higher education cooperation with Chinese characteristics.

## **Current situation of Sino-German higher education cooperation model**

At present, more than 500 Chinese and German universities (including more than 300 Chinese universities and more than 200 German universities) have established substantial inter-

university exchange relations. The main forms of Sino-German educational cooperation include the exchange of overseas students, the exchange of experts and short-term research scholars, interuniversity exchanges, joint scientific research, joint seminars, etc. Cooperation will focus on higher education, vocational education and language teaching. A considerable number of Chinese university researchers work in the Fraunhofer-Gesellschaft, the Alexander von Humboldt Foundation, and the German Science Foundation and other German research institutions and foundations to carry out collaborative research or study in Germany [5].

#### 1. Current situation of cooperation with relevant institutions in Germany

The cooperation between relevant German higher education institutions and Chinese higher education shows the characteristics of multiple levels and wide fields, covering German central government agencies, state government agencies and non-governmental organizations. At the central government level, the German Federal Ministry of Education and Research (BMBF), as the official functional organization of German education, carries out higher education exchanges and cooperation with China at the strategic level. Specific cooperation includes jointly building the Sino-German Vocational Education Cooperation Alliance and the Sino-German strategic partnership for higher education, conducting research and dialogue on education policies, supporting joint scientific research among universities, and supporting joint training of high-level talents. At the ministerial level, the two sides hold the annual "China-Germany Education Policy Dialogue", and at the department level, the two sides hold the annual meeting of the China-Germany vocational Education Cooperation Leading Group in turn. At the state government level, China has actively cooperated with the Kultusministerkonferenz (KMK) of German state Culture Ministers.

The cooperation with relevant German higher education institutions covers scientific and technological assistance cooperation, vocational education cooperation and language education cooperation. German Federal Ministry for Economic Cooperation and Development (BMZ), German Agency for International Cooperation Cooperation GmbH (GIZ) and Hanns Seidel Foundation (HSSt) focus on technical assistance and development cooperation with China in the field of vocational education, the promotion of vocational education experience, and the training of key

teachers and administrators in vocational education. Goethe Institute (GI) focuses on higher education language education cooperation between China and Germany, jointly carrying out language teaching, German teacher training, interpreter training. German language and culture database construction, providing foreign teachers and other cooperation. The German Academic Exchange Service (DAAD) and the German Research Foundation (DFG) mainly focus on academic exchanges and cooperation between universities. China and Germany jointly fund largescale joint research projects in universities, carry out Sino-German joint doctoral school projects to jointly train high-level talents, exchange senior visiting scholars and language experts, and jointly support cooperation projects in the field of higher education. Some institutions have special offices in China, such as the DAAD office of the German Academic Exchange Service in Beijing, the Goethe Institute in Beijing, and Goethe language centers across China. In addition, China also has ties with German foundations such as the Konrad Adenauer Foundation, the Friedrich Ebert Foundation, and the Alexander von Humboldt Foundation Institutions such as the Krupp Foundation and the Krupp Foundation carry out various forms of cooperation in the fields of higher education and basic education, such as joint scholarship programs and expert exchanges.

## 2. Current situation of study abroad model between China and Germany

Germany is one of the most popular countries in the world for international students, with world-class scientific research, a full range of professional categories, a long history of education and relatively low university tuition fees. According to the annual report "German Center for Higher Education and Scientific Research 2022" released by the German Academic Exchange Service (DAAD), Germany ranks fourth in the world in terms of the number of international students in 2022. Although the number of new applications from Chinese students in Germany has dropped by 7% due to the COVID-19 pandemic, China still accounts for the largest share of international students in Germany. With more than 40,000 Chinese students studying in Germany in the 2020/21 winter semester, China is still the main source country of international students in Germany, and the number of Chinese students in Germany is expected to explode in the "post-pandemic era" as international exchanges normalize. One of the biggest barriers to studying

in Germany is German proficiency, but Chinese students' German proficiency is much better than that of other Asian countries, with 31% of students achieving C1/C2 level and 56% achieving B1/B2 level. In terms of majors, the majority of students choose engineering, followed by law, economics and social sciences [6]. According to the China Study Abroad Development Report (2022), Germany is the sixth largest destination country for Chinese students studying abroad. From 2011 to 2019, the number of Chinese international students in Germany increased from 25,521 to 41,353, with an average annual growth rate of about 6.22%, and the proportion increased from 9.92% to 12.03%. The Chinese-German study abroad model is mainly self-funded study abroad, and scholarship programs and university exchange and visiting programs also occupy a certain proportion. For example, the number of international students in China and Germany exceeds 8,000, of which nearly one-tenth are scholarship students [7]. The increase in the proportion of scholarships is bound to encourage more student mobility. It finds that both individual attributes and family backgrounds are related to students' choices. Students with better academic performance, stronger motivation and commitment to study, and those from privileged families have greater intentions to study abroad [8].

#### 3. Current cooperation mode between Chinese and German universities – taking Jilin University and Tongji University as examples

Inter-university cooperation is one of the important carriers of international higher education cooperation. Chinese universities, such as Jilin University and Tongji University, have a long history of cooperation with Germany, a wide range of cooperation fields and a novel cooperation model, which has strong reference significance. In recent years, the cooperation between Jilin University and Germany has developed rapidly, and at present, Jilin University has established inter-university cooperative relations with 7 German universities and research institutions. The cooperation covers a wide range of disciplines, including social sciences, science, engineering, geoscience, medicine and agriculture. Jilin University has actively promoted the innovation of cooperation models with Germany, and has continuously launched inter-university exchange programs for students and exchange visits by teachers from both sides. Such as sending students to University of Tubingen, Dresden University of Engineering and Economic Application Technology, University of Gottingen, University of Munich, Munich and Karlsruhe Institute of Technology participate in long – and short-term exchange programs and international conferences such as joint training, winter camps for top companies, Formula Student car races, etc. The practical cooperation between disciplines is the characteristic of the cooperation mode of higher education between Jilin University and Germany. 8 teaching and research institutions of Jilin University and 12 universities and research institutions of Germany have practical exchanges and cooperation in student exchange programs, visiting student programs, teacher exchanges, scientific research cooperation, joint publication of articles and other aspects [9]. For example, the Polar Research Center of Jilin University cooperated with the Alfred Wegener Institute of Polar and Marine Research in Germany, sending teachers and students to participate in the German Antarctic scientific expedition. Another example is the Radiology department of the Norman Bethune Health Science Center of Jilin University and the University of Cologne in Germany the Department of Radiology of the Medical School of Cologne has in-depth cooperation in the field of artificial intelligence applications for pneumonia and liver cancer. Jilin University also actively plays the advantages of platform and schoolenterprise cooperation.

Tongji University has a century-old history with Germany, and Tongji University is also the university with the closest cooperation and the most in-depth exchanges with Germany in higher education. Tongji University will implement the "Germany Cooperation 2.0 Strategy" in 2022, follow the basic principles of "small core, big periphery, high-level", comprehensively integrate Tongji University's resources with Germany, and create a new ecosystem of Tongji University's cooperation with Germany characterized by "one roof, three pillars, two hard and one soft, and three in one". Tongji University has long been committed to exploring new cooperation models with German universities to form new cooperation results and contribute to creating a new model of Sino-German higher education cooperation. Tongji University is one of the universities in China that elevates the cooperation in higher education with Germany to a strategic level. At the same time, Tongji University also has the only international cooperative school running institution in China, Chinesisch-Deutsches

Hochschulkolleg, which is jointly advocated by the Chinese and German governments. The Chinesisch-Deutsches Hochschulkolleg was founded on February 18, 1998. It mainly trains master students and has four departments: Electronic and Information Engineering, Mechanical Engineering, Vehicle Engineering and Economics and Management. The specialty setting of Sino-German College of Tongji University has the characteristics of engineering, which is also related to Germany's industrial power and manufacturing power. In 2004 the Sino-German University of Applied Sciences CDHAW at Tongji-University Shanghai was founded and started with three engineering study courses: Automotive Engineering, Building Service Engineering and Mechatronics Engineering [10]. The Sino-German School of Tongji University cooperates with a number of well-known German universities such as the Technical University of Munich and the Karlsruhe Institute of Technology Technology, University of Stuttgart, Ruhr University Bochum, Technical University of Berlin, the Technical University of Darmstadt, the Dresden University of Technology and the Technical University of Braunschweig University of Braunschweig, etc. The Sino-German College of Tongji University has a lot of financial support, including fund chairs and joint laboratories funded by Tongji University, the German Academic Exchange Service (DAAD) and 30 leading Chinese and German enterprises. In October 2014, Li Keqiang, then Premier of The State Council, visited Germany and signed the "Sino-German Cooperation Action Program: Shaping Innovation Together", which proposed that the Sino-German College of Tongji University in Shanghai (under the three institutions of Sino-German College of Engineering and Sino-German College of Vocational Education) is a successful model for implementing close cooperation between universities. The Chinese government encourages and supports Chinese and German universities to carry out innovative long-term demonstration cooperation funded by both sides [11].

## 4. Sino-German vocational education cooperation model

Vocational education is a branch of higher education, vocational education is a supplement to higher education. The Sino-German Alliance for the Integration of Industry and Education in vocational education and the Hefei Institute are examples of Sino-German vocational education cooperation. The Sino-German Alliance of Enterprises and Education is organized by the Associa-

tion of German Chambers of Industry and Commerce Commerce), German University of Applied Technology, German vocational colleges, German enterprises take the lead, and jointly with Chinese vocational colleges, enterprises in Central China and Germany, scientific research institutes and professional associations (schools) and other voluntary participation of a diversified, cross-regional, non-profit industry-education consortium. The data shows that governmental organizations are the main actors who play a major role in the Sino-German VET cooperation. Germany and China have been engaged in a wide range of vocational education and training (VET) cooperation activities since the 1980s. [12]. According to the data of the Sino-German Vocational and Technical Education Network, more than 100 colleges and enterprises are members of the Sino-German vocational education Industryeducation Integration Alliance. The Sino-German Alliance for Integration of Industry and Education in Vocational Education promotes cooperation between Chinese and German schools and enterprises to build a base for integration of industry and education and a dual-enterprise training center between Chinese and German enterprises, and carries out in-depth cooperation with German enterprises in technical personnel training and staff continuing education and training [13]. The model of Hefei College is to rely on the construction of Sino-German education cooperation demonstration base, and jointly establish a "professional and coordination committee" with German universities and enterprises. China and Germany jointly set up mechanical design, manufacturing and automation classes to promote the "dual system" undergraduate education reform with deep integration of production and education. At the same time, China and Germany have built a capability-oriented modular teaching system, implemented the school-enterprise dual tutorial system, flexibly switched the schoolenterprise teaching scene, implemented the "double employment" and "double suspension" system, and used the construction of Sino-German educational cooperation demonstration bases to introduce German teachers. Learning from Germany's dual-track talent training model can cultivate students' innovative ability, practical ability and international ability [14].

## **5. Difficulties and challenges in Sino-German** higher education cooperation

Although Sino-German higher education cooperation has made great achievements in recent years, compared with other developed countries, Sino-German higher education cooperation is relatively lagging behind. Taking Sino-foreign cooperation in running schools as an example, there are a total of 65 Sino-German cooperation institutions and programs with undergraduate degrees or above, of which 56 are projects, 10 have no legal person status and none of them has legal person status, ranking eighth among the cooperation target countries, after the United States, the United Kingdom, Australia, Russia, South Korea, Canada and France [15].

In recent years, the epidemic has been the primary dilemma for China-Germany higher education cooperation. Although online teaching and online exchange and cooperation are more convenient, the cooperation effectiveness is still not as good as before the outbreak of the epidemic. The epidemic has disrupted the international academic exchanges between China and Germany based on the movement of people, and students studying in Germany have been restricted from attending on-site teaching in foreign universities. According to the relevant data in 2020, more than 90% of overseas academic exchange plans have not been completed, more than 90% of academic exchange funds for business trips abroad have not been used, and international academic exchanges have had to be shifted online. The epidemic has caused serious damage to the international cooperation environment of higher education based on personnel mobility. The effect of academic communication in the form of online conference is not ideal, and the inter-school cooperation relationship is weakened [16]. Secondly, under the complex evolution of the novel coronavirus epidemic and the global political and economic pattern, the international situation is complex and changeable, and Germany's policy toward China is also unclear. In recent years, Germany has pursued the National Industrial Strategy 2030: The Strategic Guidelines for a German and European Industrial Policy document continue to tighten and protect key economic and technological fields, and scientific and technological cooperation between China and Germany will face certain obstacles. This will affect the scientific and technological cooperation in Sino-German higher education cooperation [17]. Finally, the adjustment of Germany's education policy in recent years will also affect Sino-German higher education cooperation. For example, the new German Federal Ministry of Education and Research Bettina Stark-Watzinger opposes and rejects Confucius Institutes. The German Minister of Education believes that Confucius Institutes are tools of political infiltration, which will inevitably affect the development of Confucius Institutes. Confucius Institutes adopt the mode of cooperation between Chinese and foreign universities, and their purpose is to carry out Chinese language education and spread excellent traditional Chinese culture. The hindered development of Confucius Institutes in Germany will inevitably affect the cooperation between Chinese and German universities in humanities and Chinese education. In addition, anti-China policies in Germany and Europe will also hinder Sino-German higher education cooperation. Recently, for example, Bettina Stark-Watzinger publicly expressed concern that Chinese government students may engage in "espionage" at German universities and research institutes. The German Education minister also said in an interview with Bavarian Media group that "China is increasingly becoming a competitor and an institutional rival in the field of science and research", encouraging other research institutions to review their cooperation with the China Scholarship Council (CSC) [18].

### 6. New opportunities for China-Germany higher education cooperation

The 50th anniversary of the establishment of diplomatic ties between China and Germany is an important opportunity for China-Germany higher education cooperation. China and Germany have held several forums on higher education cooperation, which has provided new opportunities and new ideas for China-Germany higher education cooperation. For example, the "Sino-German Forum on Innovative Talents Training in Higher Education" of the 23rd China International Education Conference and Exhibition hosted by Sun Yat-sen University conducted exchanges and discussions on topics such as the training of innovative talents in higher education, the sustainable development of Sino-German international exchanges, scientific research cooperation and the integrated innovation model of talent training. Tongji University and the German Academic Exchange Service (DAAD) jointly organized the "New Strategic Direction of Sino-German Academic Cooperation - Cooperation Forum between Tongji University and German Partner Universities", which was held in a combination of online and offline. Tongji University launched the "Cooperation with Germany 2.0 Strategy" and conducted in-depth exchanges with nearly 50 well-known partner universities and

institutions in Germany on how to focus on the common principles of "excellence, win-win and exemplary" and carry out more high-level cooperation of mutual benefit and win-win in the future. The forum has enhanced mutual trust in higher education cooperation between the two sides. Fang Jun, deputy Director of the Department of International Cooperation and Exchange of the Chinese Ministry of Education, said that the Chinese Ministry of Education has always regarded Germany as one of the important partner countries for educational exchanges. It is hoped that the two sides will take the 50th anniversary of diplomatic ties as an opportunity to strengthen dialogue and communication and further expand cooperation in digital education, green transformation and personnel exchanges. The Forum also provides a platform for the two sides to carry out more mutually beneficial and win-win high-level cooperation. On the occasion of the 50th anniversary of the establishment of diplomatic relations between China and Germany, the German Foreign Ministry mentioned that "more than 40,000 Chinese students study in Germany every year", and President Xi Jinping also mentioned in a telephone conversation with German Chancellor Olaf Scholz that "we adhere to a pragmatic attitude and actively promote mutually beneficial cooperation between the two countries", which shows that Sino-German higher education cooperation has great potential on the occasion of the 50th anniversary of the establishment of diplomatic relations between China and Germany [19]. Second, the ministerial dialogue gives confidence to German higher education cooperation. China's Minister of Science and Technology Wang Zhigang and Germany's Federal Ministry of Education and Research Bettina Stark-Watzinger agreed in a video meeting: The two sides are willing to further strengthen cooperation, create a good environment for the cooperation of researchers of the two countries, jointly support the deepening of exchanges and cooperation in the fields of climate protection, innovation strategy and policy, and play a positive role in overcoming global challenges. The ministerial meeting also greatly enhanced the vision of educational cooperation between China and Germany.

The relaxation of Germany's study abroad policy is also conducive to the development of Sino-German higher education cooperation. Currently, Germany provides certain convenience policies for Chinese students, such as allowing

Chinese high school graduates to directly apply for undergraduate majors in German universities based on their college entrance examination results, reducing and reducing tuition fees for international students, and providing loans and financial assistance. Germany's relaxation of visa application requirements for international students in 2021 further provides favorable policies for Chinese students to study abroad. The Zukunftsstrategie Forschung und Innovation aims to improve the framework conditions for efficient scientific systems, accelerate knowledge transfer, increase European and international scientific cooperation, and strengthen participation in research, development and innovation. The proposal of Germany's top-level strategy of research and innovation development at the national level provides an opportunity for Sino-German scientific and technological exchanges and cooperation, and Chinese and German universities can better carry out inter-university scientific and technological cooperation. At the strategic level, China has always been willing to maintain strategic mutual trust with Germany in education and science and technology. For example, Ambassador Wu Ken said in an interview with the German newspaper Berliner Zeitung that "China is not a risk". Minister Bettina Stark-Watzinger's recent comments are stigmatizing China. China will continue to have full communication with Germany on relevant issues and jointly seek solutions. China and Germany have far more common ground than differences, cooperation far exceeds competition, and the two sides are partners rather than rivals [20].

#### Conclusion

A significant feature of the new model of higher education in China and Germany is that it can be used for reference and has a certain universality. The new model of higher education between China and Germany can be used for reference by Russia. The conflict between Russia and Ukraine led to the suspension or stagnation of the normal higher education cooperation between Russia and Western countries. But the international situation will eventually return to stability, wars will stop, and conflicts will disappear. After the normalization of the international situation, how to repair, rebuild or innovate the mode of Russia's foreign higher education cooperation is a problem that the Russian educational circle needs to think about. In the hope that the new model of Sino-German higher education discussed in this paper can provide ideas for Russia's foreign higher education cooperation, and

the new model of Sino-German higher education can be used as a reference for any country's foreign higher education cooperation. The first is to take national higher education cooperation policies as the main guarantee, bilateral or multilateral higher education agreements as the main driving force, and universities and enterprises as the main carrier, all three are indispensable. The second is to deepen cooperation space and broaden the scope of cooperation. For example, cooperation in higher education is not limited to central governments, but can also be expanded to local governments. Thirdly, we should pay attention to the cooperation between schools and enterprises, through which the results of higher education cooperation can be better transformed quickly and more practical talents can be trained. The fourth is to innovate the form of cooperation, on the basis of the original conference and forum, public exchanges and co-construction of cooperation bases to innovate. Fifth, the two sides should enhance strategic mutual trust in science, technology and education, especially in the high-tech field, and expand their common interests in science, technology and education. At the same time, it is necessary to establish a guaranteed system of educational exchange and cooperation with foreign countries. We will gradually loosen the authority to classify foreign exchange and cooperation projects in education, advance the qualification recognition and management reform of educational institutions open to the outside world, and improve the convenience and speed of the management and service of education open to the outside world [21].

In the article "Thinking on the High-quality Development of Sino-German Cooperation in running Schools", Shenzhou Economist magazine also mentioned the following suggestions to improve the quality of Sino-German cooperation in running schools: First, improve the efficiency of communication through the platform organization structure; Second, we should actively carry out international certification and build a quality system for talent training. The third is to build a bachelor, master and doctoral system, highlighting the multi-level talent training pattern. Fourth, we need to think from a platform and strengthen centralized management of scientific research between China and Germany. Fifth, China and Germany should strengthen research on cultural policies and provide support for China-Germany cooperation. This requires China to actively carry out research on German history, culture, current situation, development trend, legal policies and other aspects. Comparing the differences between China and Germany, "seeking common ground while shelving differences and pursuing win-win cooperation" provides necessary advice and support for all-round and effective cooperation between China and Germany [22]. Sino-German higher education cooperation has been developing in twists and turns. Looking back on the history of Sino-German higher education cooperation, we can find that crises and opportunities coexist in any particular historical period. At present, there are more destabilizing factors in the world landscape, as well as in the relations between China and Europe and between China and Germany. Of course, this will lead to more

instability in Sino-German higher education cooperation, but we need to find stability in this unstable factor and find certainty in the uncertain world. On the contrary, strengthening higher education cooperation between the two countries can enhance mutual trust between the two countries. expand common interests between the two countries, and can play a role in stabilizing the relationship between the two countries. To avoid the risks of Sino-German higher education cooperation, to cope with the external challenges of Sino-German higher education cooperation and to grasp the new opportunities of Sino-German higher education cooperation are the proper meaning of the current development of Sino-German higher education cooperation.

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