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THESIS

THE DEVELOPMENT OF COOPERATION AND ACADEMIC EXCHANGES BETWEEN UKRAINIAN AND CHINESE UNIVERSITIES

(the beginning of the 21st century)

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The thesis contains the resu	ults of my own research. The use of ideas, results and texts
of other authors have refere	ences to the relevant sources
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ABSTRACT

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Research topicality. At the beginning of the 21st century, people are paying more and more attention to the modernization of education, realizing the importance of science and technology as well as talents for the development and progress of the country. The increasingly competitive relations in the international community are ultimately inseparable from the development of human resources and the competition for educational resources. In today's multipolar world, education is oriented towards globalization. Cultivating high-level human resources with a global outlook and specializing in their own fields of expertise is an inevitable requirement and an unchanging rule for all countries when they participate in international competition.

Organizing university teachers and students to participate in international exchange activities, promoting development of cooperation between countries and carrying out a series of academic exchanges is a common practice for universities to improve their own standard of operation and promote their further development. Prioritizing the concept of sustainable education development, extending and lengthening cooperation and exchanges among countries, and emphasizing the integrated development of education have become a must nowadays.

Ukraine and China are two countries with significant differences in geography, history, culture and economy. However, with the accelerated process of globalization and the in-depth promotion of One Belt, One Road Initiative, the ties between the two countries have become increasingly close. Especially in the field of higher education, inter-university cooperation and academic exchanges between Ukraine and China are booming. Cooperation between Ukrainian and Chinese universities is not only a

reflection of internationalization trend in education, but also an important way to deepen exchanges and cooperation between the two countries in the fields of science and technology, culture, etc.

However, despite the significant progress made in higher education cooperation between Ukraine and China, a number of challenges and shortcomings remain. Therefore, it is necessary to conduct a systematic study on the current status of cooperation between Ukrainian and Chinese universities, analyze the existing problems, and put forward practical strategies for improvement, so as to provide theoretical and practical guidance for the development of future cooperation.

Certain aspects of the problem of cooperation development and academic exchanges between universities in different countries are presented in the scientific literature. Its processing and analysis made it possible to reveal the fact that a number of scientific publications highlight the results of studying:

- the problems of higher education in various countries (Ajani, 2024; Altbach, 2013; Bidyuk, & Sova, 2021; Bie, & Yi, 2024; Clark, 1983; Jiang, & Lui, 2024; Klyachko, 2016; Li, 2018; Mekonnen Yimer, Herut, Demissie, Bareke, Agezew, Dedho, & Lebeta, 2024; Moroz, 2019; Mukan, Huzii, & Lan, 2023; Shen, & Wang, 2024; Андрощук, Андрощук, Бідюк, & Третько, 2023; Пазюра, 2023; Савченко, 2012; Чайка-Петегирич, 2014; Чирва, 2017);
- the specificity of internationalization, its trends, advantages and disadvantages (Ge, 2022; Li, & Xue, 2023; Moshtari, & Safarpour, 2024; Paziura, & Bidyuk, 2020; Qiu, García-Aracil, & Isusi-Fagoaga, 2024; Yousef, 2024; Ажажа, & Остенда, 2022; Вербицька, 2017; Дацьо, Іовчев, & Савчук, 2024; Дебич, 2016; Їн, 2021; Нітенко, 2015; Пилаєва, & Яценко, 2017; Семенець, 2017);
- the peculiarities of academic mobility and exchanges, their role and meaning for higher education development in general as well as university development in particular (Angervall, & Hammarfelt, 2024; Havran, & Shayner, 2023; Havran, Yaremko, & Horokhivska, 2024; Iosava, 2019; Kraysman, Shageeva, Ziyatdinova, & Pichugin, 2022; Leung, 2013; Tremblay, 2005; Van Der Wende, 2015; Xiao, 2021; Yu-fai, & Dines, 1993; Пазюра, 2024; Хан, 2017);

- the development of cooperation in educational sphere (Adamoli, Garbui, Macauda, & Panciroli, 2024; Balbachevsky, Cai, Eggins, & Shenderova, 2020; Junyi, & Zainudin, 2024; Mukan, & Wang, 2023; Zhang, 2017); Авшенюк, 2010; Анохіна, 2013; Антонюк, 2013; Ван, 2014; Гальцова, & Дмитриченко, 2019; Кукалець, 2021) and R&D (de Moura Santos, Coutinho, do Nascimento Batista, Galvão, de Araújo, & et al, 2024; García-Martínez, 2024; Jacob, & Meek, 2013; Jia, 2017; Luukkonen, Persson, & Sivertsen, 1992; O'Rourke, Crowley, Eigenbrode, & Wulfhorst, 2013; Sultonova, & Abdullaeva, 2024; Kozin, Kozin, & Kondratiuk, 2024; Литовченко, & Критський, 2023);
- forms and models of international academic cooperation (Cai, & Hölttä, 2014; Chan, 2004; De Rosa, 2008; Hladchenko, 2023; Kiselova, Hudovsek, Bykova, Tsybanyk, & Chagovets, 2020; Knight, 2005; Kosmützky, & Krücken, 2023; Lim, & Han, 2023; Lu-Gonzales, Tsusaka, Szabo, Kadigi, & et al, 2023; Obolenska, & Tsyrkun, 2016; Vráblová, Bonetti, Henehan, & et al, 2024; Громовенко, 2020; Казакова, Неустроєва, & Громов, 2023; Круглашов, & Швидюк, 2024; Огієнко, 2015; Сукач, 2021; Шитікова, 2017) etc.

Based on the study of scientific works of researchers from different countries, the analysis of the experience of modern Chinese and Ukrainian universities, we determined the contradictions between: the need to ensure the effectiveness of academic cooperation and exchanges implementation by universities from different countries, which is justified by the trends in the development of international space of higher education, and the initial stage of its development in Ukraine and the People's Republic of China; the need to organize academic cooperation and exchanges between the universities of the two countries and the discrete nature of its implementation in the experience of modern Ukrainian and Chinese universities; the need to improve the development of academic cooperation and exchanges between universities in Ukraine and China and the insufficient level of studying its theoretical foundations and best practices, which makes it impossible to determine further prospects for its development.

Considering the topicality of the scientific problem, based on the study of scientific literature, taking into account the requirements and trends of the international

educational and scientific space, as well as the revealed contradictions, the topic of our research was determined as follows: "The development of cooperation and academic exchanges between Ukrainian and Chinese universities (the beginning of the 21st century)".

The research aim is as follows: to perform a comprehensive analysis of the development and implementation of cooperation and academic exchanges between Ukrainian and Chinese universities at the beginning of the 21st century and suggest the ways to improve cooperation and academic exchanges between two countries.

In order to achieve the research aim, we determined **the objectives** that need to be solved:

- 1) to study the scientific literature and determine the main concepts and categories of research;
- 2) to justify the theoretical basis of cooperation and academic exchanges development, as well as substantiate the research methodology;
- 3) to analyse and highlight the peculiarities of cooperation and academic exchanges development in the discourse of Ukrainian-Chinese experience through the prism of social, economic, cultural as well as legal dimensions;
- 4) to characterise the implementation of cooperation and academic exchanges between Ukrainian and Chinese universities;
- 5) to develop suggestions and ways contributing to the improvement of cooperation and academic exchanges between two countries.

The Ukrainian and Chinese universities are the research object.

The peculiarities of cooperation development and academic exchanges between Ukrainian and Chinese universities at the beginning of the 21st century are **the research subject.**

The scientific novelty of the obtained results lies in the fact that *for the first* time the comprehensive analysis of the development and implementation of cooperation and academic exchanges between Ukrainian and Chinese universities at the beginning of the 21st century has been conducted and the ways to improve cooperation and academic exchanges between two countries were suggested; the

scientific literature has been studied which allows to justify the theoretical basis of cooperation and academic exchanges development (world systems theory; theories of knowledge creation and diffusion; social capital theory; cultural theory; social learning theory; the theory of academic internationalization; the theory of innovation and evolution; collaborative learning theory; social constructionist theory), as well as substantiate the research methodology; the peculiarities of cooperation and academic exchanges development in the discourse of Ukrainian-Chinese experience through the prism of social, economic, cultural as well as legal dimensions have been analysed and highlighted; the implementation of cooperation and academic exchanges between Ukrainian and Chinese universities in a wide range of disciplines and fields, from science and technology to humanities, and from basic to applied research has been characterised; the suggestions and ways contributing to the improvement of cooperation and academic exchanges between two countries (strengthening a longcooperation, expanding mutual benefits and effective complementarities, broadening the breadth and scope of academic exchanges; establishing various types of intermediary institutions, involving scholars, social organizations and diplomats, and communicating mutual information on a wide scale; the acceleration of the process of networking education among universities, between universities and society, and between different countries and regions; the improvement of foreign affairs management work of universities as one of the main instruments to enhance the school running level, improve the quality of teaching to serve the reform of higher education and the strategy of developing the country through science and education; the improvement of educational programs and services which attract talented youth inside and outside the country; broadening support of cultural and social spheres which forms the background for further educational and scientific cooperation) have been developed.

The content of concepts "international education", "international educational exchange", "cultural diversity", "academic collaboration and research", "interdisciplinary cooperation", "globalization of education" has been clarified.

The scientific comprehension of the concepts and terms in the field of higher

education internationalization, academic cooperation development and academic exchanges as well as features of their organization and implementation *have been improved and expanded*.

The theses on the development of academic cooperation and exchanges between universities in accordance with modern theories, laid as a basis for the internationalization of higher education, *gained further development*.

A significant volume of materials presented in the publications of Chinese scholars on the research problem, as well as innovative ideas, facts, and approaches used in the field of academic cooperation and exchanges in higher education, *have been introduced* into scientific discourse.

The practical significance of the research lies in the fact that materials, theses and conclusions of our research are used and can be used by higher education institutions, especially while teaching and studying the course "Actual problems of theory and history of pedagogical science", Education internationalization: directions, trends, perspectives" for PhD students; "Comparative Pedagogy" for Master's students. The author's suggestions and determined ways contributing to the improvement of cooperation and academic exchanges between two countries can be used by university authorities for management improvement. The research materials, conclusions and results can be used by scholars for further educational research.

The structure and volume of the thesis. The thesis consists of an introduction, three chapters, conclusion to each chapter, general conclusions, references, which include 273 items, as well as 5 appendices. The total volume of the thesis contains 211 pages, the main text covers 171 pages. The thesis encloses 1 table and 8 figures.

The **Introduction** encompasses justification of the research topicality; indicates relation of the thesis to scientific programs, plans, and themes; defines the object, subject, aim, objectives, and research methods; highlights the results of generalised analysis of research literary sources; presents the scientific novelty and practical significance of the obtained results, their approbation as well as implementation; characterise personal contribution of the researcher in co-authored publications;

presents the thesis structure and volume.

The first chapter "Cooperation and academic exchanges of university teachers and students as a scientific and pedagogical problem" clarifies the connotation of international education concepts and education globalization from the perspective of previous research overview. The significance of the theoretical foundations of the study of cooperation and academic exchanges between Ukraine and China are presented, as well as the current general direction of cooperation development and exchanges between two countries through the prism of international education.

The second chapter "Peculiarities of cooperation and academic exchanges development in the discourse of Ukrainian-Chinese experience" clarifies the social, economic, cultural aspects of cooperation and academic exchanges between Ukrainian and Chinese universities as well as substantiate the legal basis of cooperation and academic exchanges development.

The third chapter "The implementation of cooperation and academic exchanges between Ukrainian and Chinese universities" presents the peculiarities of the organization of educational exchange programs for university teachers and students, distinguishes and characterises the scope and main features of scientific cooperation and exchanges between Ukrainian and Chinese universities as well as ways and suggestions to improve cooperation and academic exchanges between two countries.

The prospects for further pedagogical research are determined.

Keywords: higher education, institution of higher education, university, People's Republic of China, Ukraine, academic cooperation, academic exchanges, scientific cooperation, mobility, international educational exchanges, globalization of education, university staff, students, scientists.

АНОТАЦІЯ

Ван Їсюань. Розвиток співпраці та академічних обмінів між університетами України та Китаю (початок 21 століття). — Кваліфікаційна наукова праця на правах рукопису.

Дисертація на здобуття наукового ступеня доктора філософії за спеціальністю 011 Освітні, педагогічні науки. — Національний університет «Львівська політехніка». — Львів, 2024.

Актуальність та доцільність дослідження. На початку 21 століття все більше уваги приділяється модернізації освіти, з огляду на важливість науки і технологій, а також талантів для розвитку і прогресу країни. Дедалі більш конкурентні відносини в міжнародному співтоваристві нерозривно пов'язані із розвитком людських ресурсів і змаганням за володіння освітніми ресурсами. У сучасному багатополярному світі освіта орієнтована на глобалізацію. Розвиток людських ресурсів високого рівня, з міжнародним світоглядом і спеціалізацією у власних галузях знань, є неодмінною вимогою та незмінною засадою для всіх країн, що беруть участь у міжнародній конкуренції.

Організування участі викладачів і студентів університетів в міжнародних обмінах, сприяння розвитку співпраці між країнами та імплементація низки академічних обмінів є звичайною практикою для університетів, що має на меті покращення власних стандартів роботи та сприяння їхньому подальшому розвитку. Пріоритет концепції сталого розвитку освіти, розширення та подовження співпраці й обмінів між країнами, а також актуалізація інтегрованого розвитку освіти стали сьогодні обов'язковими.

Україна та Китай — дві країни, що мають суттєві відмінності в географії, історії, культурі та економіці. Проте, з прискоренням процесу глобалізації та поглибленим просуванням ініціативи «Один пояс, один шлях» зв'язки між двома країнами стають дедалі тіснішими. Особливо у сфері вищої освіти швидко розвивається співробітництво та академічні обміни між університетами України та Китаю. Співпраця між українськими та китайськими університетами є не лише

відображенням тенденції інтернаціоналізації освіти, а й важливим шляхом поглиблення обмінів і співпраці між двома країнами у сферах науки і технологій, культури тощо.

Однак, незважаючи на значний прогрес, досягнутий у співпраці між Україною та Китаєм у сфері вищої освіти, залишається низка проблем і недоліків, що обгрунтовує потребу у проведенні систематичного дослідження поточного стану співпраці між українськими та китайськими університетами, аналізі існуючих проблем та виокремленні практичних стратегій вдосконалення, щоб забезпечити теоретичний та практичний супровід розвитку майбутньої співпраці.

У науковій літературі висвітлюються окремі аспекти проблеми розвитку співробітництва та академічних обмінів між університетами різних країн. Її обробка та аналіз дозволили виявити той факт, що в низці наукових публікацій презентуються результати дослідження:

- проблем вищої освіти у різних країнах (Ajani, 2024; Altbach, 2013; Bidyuk, & Sova, 2021; Bie, & Yi, 2024; Clark, 1983; Jiang, & Lui, 2024; Klyachko, 2016; Li, 2018; Mekonnen Yimer, Herut, Demissie, Bareke, Agezew, Dedho, & Lebeta, 2024; Moroz, 2019; Mukan, Huzii, & Lan, 2023; Shen, & Wang, 2024 Андрощук, Андрощук, Бідюк, & Третько, 2023; Пазюра, 2023; Савченко, 2012; Чайка-Петегирич, 2014; Чирва, 2017);
- специфіки інтернаціоналізації, її тенденцій, переваг і недоліків (Ge, 2022; Li, & Xue, 2023; Moshtari, & Safarpour, 2024; Paziura, & Bidyuk, 2020; Qiu, García-Aracil, & Isusi-Fagoaga, 2024; Yousef, 2024; Ажажа, & Остенда, 2022; Вербицька, 2017; Дацьо, Іовчев, & Савчук, 2024; Дебич, 2016; Їн, 2021; Нітенко, 2015; Пилаєва, & Яценко, 2017; Семенець, 2017);
- особливостей академічної мобільності та обмінів, їхньої ролі і значення для розвитку вищої освіти загалом та розвитку університету зокрема (Angervall, & Hammarfelt, 2024; Havran, & Shayner, 2023; Havran, Yaremko, & Horokhivska, 2024; Iosava, 2019; Kraysman, Shageeva, Ziyatdinova, & Pichugin, 2022; Leung, 2013; Tremblay, 2005; Van Der Wende, 2015; Xiao, 2021; Yu-fai, & Dines, 1993; Пазюра, 2024; Хан, 2017);

- розвитку співпраці в освітній сфері (Adamoli, Garbui, Macauda, & Panciroli, 2024; Balbachevsky, Cai, Eggins, & Shenderova, 2020; Junyi, & Zainudin, 2024; Mukan, & Wang, 2023; Zhang, 2017; Авшенюк, 2010; Анохіна, 2013; Антонюк, 2013; Ван, 2014; Гальцова, & Дмитриченко, 2019; Кукалець, 2021), а також науковій (de Moura Santos, Coutinho, do Nascimento Batista, Galvão, de Araújo, & et al, 2024; García-Martínez, 2024; Jacob, & Meek, 2013; Jia, 2017; Luukkonen, Persson, & Sivertsen, 1992; O'Rourke, Crowley, Eigenbrode, & Wulfhorst, 2013; Sultonova, & Abdullaeva, 2024; Kozin, Kozin, & Kondratiuk, 2024; Литовченко, & Критський, 2023);
- форм і моделей міжнародної академічної співпраці (Саі, & Hölttä, 2014; Chan, 2004; De Rosa, 2008; Hladchenko, 2023; Kiselova, Hudovsek, Bykova, Tsybanyk, & Chagovets, 2020; Knight, 2005; Kosmützky, & Krücken, 2023; Lim, & Han, 2023; Lu-Gonzales, Tsusaka, Szabo, Kadigi, & et al, 2023; Obolenska, & Tsyrkun, 2016; Vráblová, Bonetti, Henehan, & et al, 2024; Громовенко, 2020; Казакова, Неустроєва, & Громов, 2023; Круглашов, & Швидюк, 2024; Огієнко, 2015; Сукач, 2021; Шитікова, 2017) тощо.

На основі опрацювання наукових праць дослідників з різних країн, аналізу досвіду сучасних китайських та українських університетів ми визначили суперечності між: потребою в забезпеченні ефективності реалізації академічної співпраці та обмінів між університетами з різних країн, що обгрунтовуються тенденціями розвитку міжнародного простору вищої освіти, та початковим етапом її розвитку в Україні та Китайській Народній Республіці; потребою в організуванні академічної співпраці та обмінів між університетами двох країн і дискретним характером її реалізації у досвіді сучасних українських і китайських університетів; потребою в удосконаленні розвитку академічної співпраці та обмінів між університетами в Україні і Китаї та недостатнім рівнем вивчення її теоретичних засад і кращих практик, що унеможливлює визначення подальших перспектив їхнього розвитку.

Враховуючи актуальність наукової проблеми, базуючись на дослідженні наукової літератури, беручи до уваги вимоги та тенденції міжнародного

освітнього й наукового простору, а також виявлені протиріччя, тему нашого дослідження визначено так: «Розвиток співпраці та академічних обмінів між університетами України та Китаю (початок 21 століття)».

Мета дослідження полягає у виконанні комплексного аналізу розвитку та реалізації співпраці й академічних обмінів між українськими та китайськими університетами на початку 21 століття та виявленні шляхів удосконалення співпраці та академічних обмінів між двома країнами.

Для досягнення мети дослідження визначено завдання, які необхідно вирішити:

- 1) опрацювати наукову літературу та визначити основні поняття і категорії дослідження;
- 2) обгрунтувати теоретичні основи розвитку співпраці та академічних обмінів, а також обгрунтувати методологію дослідження;
- 3) проаналізувати та висвітлити особливості розвитку співпраці й академічних обмінів у дискурсі українсько-китайського досвіду крізь призму соціального, економічного, культурного та правового вимірів;
- 4) охарактеризувати реалізацію співпраці та академічних обмінів між українськими та китайськими університетами;
- 5) розробити пропозиції та шляхи сприяння вдосконаленню співпраці та академічних обмінів між двома країнами.

Об'єктом дослідження ϵ українські та китайські університети.

Предметом дослідження є особливості розвитку співпраці та академічних обмінів між українськими та китайськими університетами на початку 21 століття.

Наукова новизна одержаних результатів полягає в тому, що вперше виконано комплексний аналіз розвитку і реалізації співпраці та академічних обмінів між українськими та китайськими університетами на початку 21 століття та запропоновано шляхи вдосконалення співпраці й академічних обмінів між двома країнами; досліджено наукову літературу, що дозволяє обґрунтувати теоретичні основи розвитку співпраці та академічних обмінів (теорія світових

систем; теорія створення та поширення знань; теорія соціального капіталу; теорія теорія соціального теорія академічної культури; навчання; інтернаціоналізації; теорія інновацій та еволюції; теорія соціального конструктивізму), аргументувати також методологію дослідження; проаналізовано та висвітлено особливості розвитку співпраці та академічних обмінів у дискурсі українсько-китайського досвіду крізь призму соціального, економічного, культурного та правового вимірів; охарактеризовано здійснення співробітництва та академічних обмінів між українськими та китайськими університетами в широкому спектрі дисциплін і галузей, від природничих і технічних до гуманітарних наук, від фундаментальних до прикладних досліджень; запропоновано шляхи сприяння вдосконаленню співпраці та академічних обмінів між двома країнами (зміцнення довгострокової, стабільної та ефективної співпраці, розширення взаємної вигоди та взаємодоповнюваності, розширення обсягу академічних обмінів; створення різних типів посередницьких установ, залучення вчених, громадських організацій і дипломатів, а також обговорення взаємовигідних перспектив в широкому масштабі; прискорення процесу мережевої освіти, що сприяє розвитку співпраці між університетами, університетами та суспільством, різними країнами та регіонами; удосконалення управління міжнародною діяльністю як одного з основних інструментів підвищення ефективності роботи університету, покращення якості викладання та навчання, сприяння розвитку країни на основі використання здобутків в освітній та науковій сферах; удосконалення освітніх програм і послуг, що сприяє залученню талановитої молоді усередині країни та за її межами; розширення підтримки культурної та соціальної сфер, що ϵ основою для подальшої освітньої та наукової співпраці)

Уточнено зміст понять «міжнародна освіта», «міжнародний освітній обмін», «культурне різноманіття», «академічна співпраця та дослідження», «міждисциплінарна співпраця», «глобалізація освіти».

Удосконалено та розширено наукове розуміння понять і термінів у сфері інтернаціоналізації вищої освіти, розвитку академічного співробітництва та

академічних обмінів, особливостей їх організації й реалізації.

Подальшого розвитку набули положення про розвиток академічної співпраці та обмінів між університетами відповідно до сучасних теорій, покладених в основу інтернаціоналізації вищої освіти.

У науковий дискурс введено значний обсяг матеріалів, представлених у публікаціях китайських учених з досліджуваної проблеми, а також інноваційні ідеї, факти та підходи, які використовуються у сфері академічної співпраці та обмінів у вищій освіті.

Практичне значення дослідження полягає в тому, що матеріали, положення та висновки нашого дослідження використовуються і можуть бути використані закладами вищої освіти, зокрема під час викладання та вивчення проблеми теорії історії «Актуальні та педагогічної «Інтернаціоналізація освіти: напрями, тенденції, перспективи» для аспірантів; «Педагогічна компаративістика» для студентів магістратури. Пропозиції авторки та визначені шляхи, що сприяють удосконаленню співпраці та академічних обмінів між двома країнами, можуть бути використані керівництвом університетів для вдосконалення управління у сфері міжнародної діяльності. Матеріали дослідження, висновки та результати можуть бути використані науковцями для подальших педагогічних досліджень.

Структура та обсяг дисертації. Дисертація складається зі вступу, трьох розділів, висновків до кожного розділу, загальних висновків, списку використаних джерел, що налічує 273 позиції, а також 5 додатків. Загальний обсяг дисертації складає 211 сторінок, основний зміст викладено на 171 сторінках. Дисертація містить 1 таблицю та 8 рисунків.

У Вступі обгрунтовано актуальність і доцільність дослідження, зазначено зв'язок дисертації з науковими програмами, планами і темами; визначено об'єкт, предмет, мету, завдання і методи дослідження; висвітлено результати узагальненого аналізу джерельної бази дослідження; представлено наукову новизну та практичне значення одержаних результатів, їхню апробацію та впровадження; схарактеризовано особистий внесок дослідниці у працях,

опублікованих у співавторстві; презентовано структуру та обсяг дисертаційної роботи.

У першому розділі «Співпраця та академічні обміни викладачів і студентів університетів як науково-педагогічна проблема» висвітлено значення концепцій міжнародної освіти та глобалізації освіти з перспективи огляду попередніх досліджень. Представлено значення теоретичних засад дослідження співпраці та академічних обмінів між Україною та Китаєм, а також сучасний загальний напрямок розвитку співпраці та обмінів між двома країнами крізь призму міжнародної освіти.

У другому розділі «Особливості розвитку співпраці та академічних обмінів у дискурсі українсько-китайського досвіду» з'ясовано соціальні, економічні, культурні аспекти співпраці та академічних обмінів між українськими та китайськими університетами, а також обґрунтовано правові основи розвитку співпраці та академічних обмінів.

У третьому розділі «Імплементація співробітництва та академічних обмінів між українськими та китайськими університетами» представлено особливості організації програм академічних обмінів для викладачів і студентів університетів, виокремлено та охарактеризовано масштаби та основні риси наукового співробітництва та обмінів між українськими та китайськими університетами, а також запропоновано шляхи удосконалення співпраці та академічних обмінів між двома країнами.

Визначено перспективи подальших педагогічних досліджень.

Ключові слова: вища освіти, заклади вищої освіти, університет, Китайська народна Республіка, Україна, академічна співпраця, академічні обміни наукове співробітництво, мобільність, інтернаціоналізація освіти, глобалізація освіти, викладачі університетів, студенти, науковці.

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CONTENTS

AH(ТАЦІЯ
ABS	TRACT
LIS	Γ OF AUTHOR'S PUBLICATIONS
TNIT	DODUCTION
	RODUCTION
	APTER 1. COOPERATION AND ACADEMIC EXCHANGES
OF	UNIVERSITY TEACHERS AND STUDENTS AS A
	ENTIFIC AND PEDAGOGICAL PROBLEM
1.1.	The main research concepts and categories
1.2.	Theoretical basis of cooperation and academic exchanges
	development
1.3.	Methods of research
Cone	clusion for chapter 1
СПЛ	APTER 2. PECULIARITIES OF COOPERATION AND
	ADEMIC EXCHANGES DEVELOPMENT IN THE
	COURSE OF UKRAINIAN-CHINESE EXPERIENCE
∠.1.	Social, economic, cultural aspects of cooperation and academic
	exchanges between Ukrainian and Chinese universities
	Legal basis of cooperation and academic exchanges development.
Con	clusion for chapter 2
CHA	APTER 3. THE IMPLEMENTATION OF COOPERATION
ANI	ACADEMIC EXCHANGES BETWEEN UKRAINIAN AND
CHI	NESE UNIVERSITIES
3.1.	The organization of educational exchange programs for university
	teachers and students

	exchanges between Ukrainian and Chinese universities	132
3.3.	The ways to improve cooperation and academic exchanges	
	between two countries	152
Conc	clusion for chapter 3	163
GEN	ERAL CONCLUSIONS	166
REF	ERENCES	172
APP	ENDICES	199

INTRODUCTION

Research topicality. At the beginning of the 21st century, people are paying more and more attention to the modernization of education, realizing the importance of science and technology as well as talents for the development and progress of the country. The increasingly competitive relations in the global community are ultimately inseparable from the development of human resources and the competition for educational resources. In today's multipolar world, education is oriented towards globalization. Cultivating high-level human resources with an international outlook and specializing in their own fields of expertise is an inevitable requirement and an unchanging rule for all countries when they participate in international competition.

Organizing university teachers and students to participate in international exchange activities, promoting development of cooperation between countries and carrying out a series of academic exchanges is a common practice for universities to improve their own standard of operation and promote their further development. Prioritizing the concept of sustainable education development, extending and lengthening cooperation and exchanges among countries, and emphasizing the integrated development of education have become a must nowadays.

Ukraine and China are two countries with significant differences in geography, history, culture and economy. However, with the accelerated process of globalization and the in-depth promotion of One Belt, One Road Initiative, the ties between the two countries have become increasingly close. Especially in the field of higher education, inter-university cooperation and academic exchanges between Ukraine and China are booming. Collaboration between Ukrainian and Chinese universities is not only a reflection of internationalization trend in education, but also an important way to deepen exchanges and cooperation between the two countries in the educational, scientific, technological, and cultural fields, etc.

However, despite the significant progress made in higher education cooperation between Ukraine and China, a number of challenges and shortcomings remain. Therefore, it is necessary to conduct a systematic study on the current status of cooperation between Ukrainian and Chinese universities, analyze the existing problems, and put forward practical strategies for improvement, so as to provide theoretical and practical guidance for the development of future cooperation.

Certain aspects of the problem of cooperation development and academic exchanges between universities in different countries are presented in the scientific literature. Its processing and analysis made it possible to reveal the fact that a number of scientific publications highlight the results of studying:

- the problems of higher education in various countries (Ajani, 2024; Altbach, 2013; Bidyuk, & Sova, 2021; Bie, & Yi, 2024; Clark, 1983; Jiang, & Lui, 2024; Klyachko, 2016; Li, 2018; Mekonnen Yimer, Herut, Demissie, Bareke, Agezew, Dedho, & Lebeta, 2024; Moroz, 2019; Mukan, Huzii, & Lan, 2023; Shen, & Wang, 2024; Андрощук, Андрощук, Бідюк, & Третько, 2023; Пазюра, 2023; Савченко, 2012; Чайка-Петегирич, 2014; Чирва, 2017);
- the specificity of internationalization, its trends, advantages and disadvantages (Ge, 2022; Li, & Xue, 2023; Moshtari, & Safarpour, 2024; Paziura, & Bidyuk, 2020; Qiu, García-Aracil, & Isusi-Fagoaga, 2024; Yousef, 2024; Ажажа, & Остенда, 2022; Вербицька, 2017; Дацьо, Іовчев, & Савчук, 2024; Дебич, 2016; Їн, 2021; Нітенко, 2015; Пилаєва, & Яценко, 2017; Семенець, 2017);
- the peculiarities of academic mobility and exchanges, their role and meaning for higher education development in general as well as university development in particular (Angervall, & Hammarfelt, 2024; Havran, & Shayner, 2023; Havran, Yaremko, & Horokhivska, 2024; Iosava, 2019; Kraysman, Shageeva, Ziyatdinova, & Pichugin, 2022; Leung, 2013; Tremblay, 2005; Van Der Wende, 2015; Xiao, 2021; Yu-fai, & Dines, 1993; Пазюра, 2024; Хан, 2017);
- the development of cooperation in educational sphere (Adamoli, Garbui, Macauda, & Panciroli, 2024; Balbachevsky, Cai, Eggins, & Shenderova, 2020; Junyi, & Zainudin, 2024; Mukan, & Wang, 2023; Zhang, 2017; Авшенюк, 2010; Анохіна, 2013; Антонюк, 2013; Ван, 2014; Гальцова, & Дмитриченко, 2019; Кукалець, 2021) and R&D (de Moura Santos, Coutinho, do Nascimento Batista, Galvão, de Araújo, & et al, 2024; García-Martínez, 2024; Jacob, & Meek, 2013; Jia, 2017;

Luukkonen, Persson, & Sivertsen, 1992; O'Rourke, Crowley, Eigenbrode, & Wulfhorst, 2013; Sultonova, & Abdullaeva, 2024; Kozin, Kozin, & Kondratiuk, 2024; Литовченко, & Критський, 2023);

– forms and models of international academic cooperation (Cai, & Hölttä, 2014; Chan, 2004; De Rosa, 2008; Hladchenko, 2023; Kiselova, Hudovsek, Bykova, Tsybanyk, & Chagovets, 2020; Knight, 2005; Kosmützky, & Krücken, 2023; Lim, & Han, 2023; Lu-Gonzales, Tsusaka, Szabo, Kadigi, & et al, 2023; Obolenska, & Tsyrkun, 2016; Vráblová, Bonetti, Henehan, & et al, 2024; Громовенко, 2020; Казакова, Неустроєва, & Громов, 2023; Круглашов, & Швидюк, 2024; Огієнко, 2015; Сукач, 2021; Шитікова, 2017) etc.

Based on the study of scientific works by researchers from different countries, the analysis of the experience of modern Chinese and Ukrainian universities, we determined the contradictions between: the need to ensure the efficiency of academic cooperation and exchanges implementation by universities from various countries, which is justified by the trends in the development of international space of higher education, and the initial stage of its development in Ukraine and the People's Republic of China; the need to organize academic cooperation and exchanges between the universities of the two countries and the discrete nature of its implementation in the experience of modern Ukrainian and Chinese universities; the need to improve the development of academic cooperation and exchanges between universities in Ukraine and China and the insufficient level of studying its theoretical foundations and best practices, which makes it impossible to determine further prospects for its development.

Considering the topicality of the scientific problem, based on the study of scientific literature, taking into account the requirements and trends of the international educational and scientific space, as well as the revealed contradictions, the topic of our research was determined as follows: "The development of cooperation and academic exchanges between Ukrainian and Chinese universities (the beginning of the 21st century)".

The relation of the thesis to scientific programs, plans, themes. The thesis research was carried out in accordance with the topic of scientific work carried out by

the Department of Pedagogy and Innovative Education at Lviv Polytechnic National University: "Theoretical and methodological foundations of the personal and professional development of a modern specialist in the conditions of integration into the international educational space" (number of state registration 0121U113179).

The topic of this thesis was approved (Minutes № 6/22 dated 01.02.2022) at the meetings of the Academic Council of the Institute of Jurisprudence, Psychology and Innovative Education of Lviv Polytechnic National University.

The Ukrainian and Chinese universities are the research object.

The peculiarities of cooperation development and academic exchanges between Ukrainian and Chinese universities at the beginning of the 21st century are **the research subject.**

The research aim is as follows: to perform a comprehensive analysis of the development and implementation of cooperation and academic exchanges between Ukrainian and Chinese universities at the beginning of the 21st century and suggest the ways to improve cooperation and academic exchanges between two countries.

In order to achieve the research aim, we determined **the objectives** that need to be solved:

- 1) to study the scientific literature and determine the main concepts and categories of research;
- 2) to justify the theoretical basis of cooperation and academic exchanges development, as well as substantiate the research methodology;
- 3) to analyse and highlight the peculiarities of cooperation and academic exchanges development in the discourse of Ukrainian-Chinese experience through the prism of social, economic, cultural as well as legal dimensions;
- 4) to characterise the implementation of cooperation and academic exchanges between Ukrainian and Chinese universities;
- 5) to develop suggestions and ways contributing to the improvement of cooperation and academic exchanges between two countries.

In our research we used the **theoretical and applied research methods** in order to fulfil the objectives and achieve the research goal: *the theoretical methods*: literature

review, theoretical and content analysis which allowed to collect and analyse publications related to the research topic, and to extract, summarize and synthesize significant information and opinions from it as well as understand the latest developments, theoretical frameworks, methods and findings in the research field; bibliographic method and comparative analysis of regulatory documents, which gave the possibility to study and comprehend the background, history, current situation, experience, and problems of cooperation and academic exchanges between Ukrainian and Chinese universities; background analysis made it possible to understand and explain the context, environment and relevant factors of the research problem, and provide a comprehensive background framework and theoretical basis for the research; the use of qualitative research method enabled the analysis, starting from the contradictions of things, describing and explaining the differences in the research subdisciplines, and directly grasping the main aspects of the characteristics of things based on certain theories and experiences as well as gaining a deep comprehension of the effects and impacts of international educational exchanges and cooperation; the case study method, which involved detailed observation, documentation and analysis of cases in order to gain an in-depth understanding of the characteristics, context, dynamics and influencing factors; the empirical method: method of collecting research data and research literature with the goal to conduct the research on academic cooperation and exchanges between two countries.

The scientific novelty of the obtained results lies in the fact that *for the first* time the comprehensive analysis of the development and implementation of cooperation and academic exchanges between Ukrainian and Chinese universities at the beginning of the 21st century has been conducted and the ways to improve cooperation and academic exchanges between two countries were suggested; the scientific literature has been studied which allows to justify the theoretical basis of cooperation and academic exchanges development (world systems theory; theories of knowledge creation and diffusion; social capital theory; cultural theory; social learning theory; the theory of academic internationalization; the theory of innovation and evolution; collaborative learning theory; social constructionist theory), as well as

substantiate the research methodology; the peculiarities of cooperation and academic exchanges development in the discourse of Ukrainian-Chinese experience through the prism of social, economic, cultural as well as legal dimensions have been analysed and highlighted; the implementation of cooperation and academic exchanges between Ukrainian and Chinese universities in a wide range of disciplines and fields, from science and technology to humanities, and from basic to applied research has been characterised; the suggestions and ways contributing to the improvement of cooperation and academic exchanges between two countries (strengthening a longstable and effective cooperation, expanding mutual benefits term. complementarities, broadening the scope of academic exchanges; establishing various types of intermediary institutions, involving scholars, social organizations and diplomats, and communicating mutual perspectives on a wide scale; the acceleration of the process of networking education which contributes to cooperation development between universities, universities and society, different countries and regions; improving the management of international activities as one of the main tools for increasing the efficiency of the university's work, improving the quality of teaching and learning, promoting the development of the country based on the use of achievements in the educational and scientific spheres; improvement of educational programs and services, which helps to attract talented youth within the country and abroad; expansion of support for cultural and social spheres, which is the basis for further educational and scientific cooperation) have been developed.

The content of concepts "international education", "international educational exchange", "cultural diversity", "academic collaboration and research", "interdisciplinary cooperation", "globalization of education" has been clarified.

The scientific comprehension of the concepts and terms in the field of higher education internationalization, academic cooperation development and academic exchanges as well as features of their organization and implementation *have been improved and expanded*.

The theses on the development of academic cooperation and exchanges between universities in accordance with modern theories, laid as a basis for the internationalization of higher education, gained further development.

A significant volume of materials presented in the publications of Chinese scholars on the research problem, as well as innovative ideas, facts, and approaches used in the field of academic cooperation and exchanges in higher education, *have been introduced* into scientific discourse.

The practical significance of the research lies in the fact that materials, theses and conclusions of our research are used and can be used by higher education institutions, especially while teaching and studying the courses "Actual problems of theory and history of pedagogical science", "Internationalization of education: directions, trends, perspectives" for PhD students; "Comparative Pedagogy" for Master's students. The author's suggestions and determined ways contributing to the improvement of cooperation and academic exchanges between two countries can be used by university authorities for management improvement in the sphere of international activity. The research materials, conclusions and results can be used by scholars for further educational research.

The research results have been implemented in the educational process of the following higher education institutions: Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University (Certificate #06/23 dated 25.06.2024); Stepan Gzhytskyi National University of Veterinary Medicine and Biotechnologies of Lviv (Certificate #811-16.03 dated 26.06.2024); Lesya Ukrainka Volyn National University (Certificate #03-24/04/1835 dated 01.07.2024); Lviv Polytechnic National University (Certificate #67-01-1422 dated 22.08.2024).

Personal contribution of the author in the co-authored publications. All research results have been obtained by the author autonomously. In the articles written in co-authorship, the author owns the following: Mukan, & Wang, 2023a — the characteristic of the main features which describe cooperation and academic exchanges between Ukrainian and Chinese universities; Mukan, & Wang, 2023b — the justification of the methodology used in the research of cooperation and academic exchanges between Ukrainian and Chinese universities.

The approbation of research results. The materials, theses and results of our

research have been approbated at various conferences: the IV International research and practical internet conference "Modern scientific potential" (Zdar nad Sazavou, Check Republic, 2023); II Міжнародна науково-практична конференція «Професійний розвиток педагога в умовах інтеграції до європейського освітнього простору: міжнародна академічна та професійна / професійно — педагогічна мобільність» (Lviv, Ukraine, 2023); the IV International research and practical internet conference "World science: problems, prospects, innovations" (Zdar nad Sazavou, Check Republic, 2023); XI Міжнародна науково-практична конференція «Управління в освіті» (Lviv, Ukraine, 2023); Міжнародна науково-практична конференція «Актуальні проблеми професійної педагогіки та освіти: досвід, новації, перспективи» (Lviv, Ukraine, 2024).

Publications. The materials of the thesis are covered in 11 publications of the author (9 of them are individual): 2 chapters in collective monographs, 4 articles in journals included into the list of specialized scientific publications of Ukraine, 5 abstracts which certify the approbation of thesis' materials on the conferences.

The structure and volume of the thesis. The thesis consists of an introduction, three chapters, conclusion to each chapter, general conclusions, references, which include 273 items, as well as 5 appendices. The total volume of the thesis contains 211 pages, the main text covers 171 pages. The thesis encloses 1 table and 8 figures.

CHAPTER 1

COOPERATION AND ACADEMIC EXCHANGES OF UNIVERSITY TEACHERS AND STUDENTS AS A SCIENTIFIC AND PEDAGOGICAL PROBLEM

The first chapter "Academic cooperation and exchange of university teachers and students as a scientific and pedagogical problem" mainly clarifies the specific connotation of international education concepts and education globalization from the perspective of research overview and categories. The source and significance of the theoretical foundations of the study of educational cooperation and academic exchanges between Ukraine and China are presented, as well as the current general direction of cooperation and exchanges between Ukraine and China in the category of international education.

1.1. The main research concepts and categories

Ukraine, located in the eastern part of Europe, is an integral part of China's One Belt, One Road policy (Belt and Road Portal, 2021). International relations between Ukraine and China have been characterized by good international friendship since the independence of Ukraine proclamation. Ukraine became independent in 1991, and China and Ukraine established diplomatic relations in 1992. The 32-year history of good friendship and cooperative development of international relations makes it meaningful to study the international cooperation and academic exchange projects between Ukraine and China.

2023 is also the 10th year of China's One Belt, One Road policy. Over the past ten years, with the support of the governments of the two countries, cooperation between the two peoples in the economic, political, cultural, educational and other areas has achieved fruitful results. The core competitiveness of the 21st century is the demand and competition for talents. All the countries in the world maintain the same

attitude towards the concept of strengthening the country with science and technology and developing the country with talents. "This ability to attract talent from around the world on a highly competitive basis allows these institutions to further strengthen their capacity, and as they are propelled through the rankings, also their reputation" (Van Der Wende, 2015, p. 71).

The concept of international education exchange has also become more and more popular. In today's education and talent strong country, international cooperation and academic exchanges between universities have increasingly become the most important of the educational exchange and cooperation programs between the two countries.

Taking the development of educational cooperation and academic exchanges between Ukrainian and Chinese universities as an example, this paper takes the 21st century as the starting point to study the cooperation and academic exchanges between Ukraine and China in education and schools over the past 20 years. Through three chapters, it discusses and researches the political, economic and cultural aspects of the two countries, the legal basis of cooperation, policies, and the scope of the exchange of teachers and students between universities. The study summarizes the development of cooperation between Ukrainian and Chinese higher education institutions, analyses the cooperation and development of education between Ukraine and China under One Belt, One Road Initiative, and summarizes the results and experience gained, as well as the recommendations and impacts. This is not only conducive to the further development of educational cooperation between Ukraine and China, but also provides experience and lessons for other countries along One Belt, One Road Initiative (Belt and Road Portal, 2021).

The concept of international education and exchange is accompanied by the impact of the 21st century networked economic thinking, as well as, the influence of international university cooperation and exchanges. It makes people pay more attention to the transformation and upgrading of education provision in the new situation. This has a certain positive impact on the further study of the development trend of international educational exchanges (UNESCO, 2015). The cooperation between

China and Ukraine under One Belt, One Road Initiative initiative has achieved remarkable results, especially in the fields of education and culture, which is full of potential and promising (Belt and Road Portal, 2021). This is also a summary of the educational cooperation and academic exchanges between Ukrainian and Chinese universities.

Concept of international educational exchange. Education is an important component of foreign cultural affairs, which occupy a very important place in international relations. All countries attach great importance to the development of foreign cultural exchanges and regard them as an important part of their foreign policy. Especially in the 21st century, with the advent of the information age and the unprecedented expansion of the market economic system, globalization has been expanding in scale and speed, and has rapidly penetrated into all aspects of politics, culture and education (Spring, 2014; Bogoviz, Shvakov, Tretyakova, Zakharov, & Abramov, 2019; Li, 2018). As a result, the globalization of education has begun to develop and is slowly becoming an important trend in the development of global education. At the same time, education has no national boundaries and is not racialized. In international educational exchanges and cooperation, it is necessary to strengthen the understanding of the people of different regions and countries, to establish an atmosphere of mutual trust and exchange, and countries should pay more attention to and emphasize on international educational exchanges and cooperation as an important carrier for the development of international relations and the promotion of international cooperation. International educational exchanges and cooperation also play a positive role in promoting peace and stability in the world (Rezaei, Yousefi, Larijani, Dehnavieh, Rezaei, & Adibi, 2018).

The concept of international educational exchange is mainly reflected in five aspects: education is an important means for the continuation of a country's culture; education has the characteristics of normative and stability, formed in a complete institutional system; international educational exchanges have the important characteristic of spreading values; education has the characteristics of a younger audience and international educational exchanges can shape the younger generation's

recognition, understanding and tolerance of other cultures, thereby promoting crosscultural mutual understanding and trust; international educational exchanges should be carried out with an understanding and inclusive attitude (see Fig. 1.1).

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Fig. 1.1. Five aspects of the concept of international educational exchange

Firstly, education is an important means for the continuation of a country's culture. With the close international exchanges, international educational exchanges have strengthened international cultural exchanges, making education a major means of cultural communication and a long-term component of international cultural relations. International educational exchanges establish a systematic cultural and educational system and promote the development of international educational and

academic exchanges. Secondly, education has the characteristics of normative and stability, educational and other cultural activities in the long process of development, has formed a complete institutional system, as far as the formation of the education system is formed in accordance with certain norms, with a certain degree of stability. Thirdly, international educational exchanges have the important characteristic of spreading values. When a country establishes a standardized education system, it reflects its unique history and cultural background, which in turn helps to develop a stable foundational value system. International educational exchanges can further enhance these values. Additionally, education primarily targets the younger generation. These exchanges can foster young people's appreciation, understanding, and tolerance of different cultures, thereby promoting cross-cultural understanding and trust. In the 21st century, a globalized era, such mutual understanding and trust are crucial for future global peace and stability.

International educational exchanges should be approached with a mindset of understanding and inclusivity. These fundamental aspects of education establish it as a lasting, stable, systematic, and institutionalized means of communication in international cultural relations. Broad international educational exchanges and collaborations effectively foster long-term mutual understanding and trust among individuals from diverse countries and cultural backgrounds. The significant role of international educational exchange and cooperation in international relations is widely recognized and appreciated.

The functions of education were initially summarized as training of human resources, scientific research, social welfare and cultural heritage". The training of human resources is the most basic function of a university and one of the most important ways to serve society indirectly. The world is a whole, universal and constantly connected, and cultural exchanges are also constantly integrating and communicating. Under the current international background, talent education plays a huge role in national rejuvenation and national prosperity. Therefore, international educational exchanges are necessary for the development of universities. With the reform and development of colleges and universities around the world, the pace of

international university cooperation and exchanges is accelerating. In order for higher education to survive and develop in the new century, it is necessary to further strengthen international exchanges, cooperation and exchanges, expand opening up, and scientifically integrate educational resources. Facing the challenges of survival and development, universities shoulder the arduous task of cultivating talents for social development.

We must have a clear understanding of the connotation of international educational exchanges in order to better understand the significance and importance of international educational exchanges, which is not only an inevitable trend in the development of international educational exchanges, but also a deeper understanding of the study of educational cooperation and exchanges between the two universities. Its impact is far-reaching and multifaceted, and is not only limited to teaching exchanges and cooperation programs within the university. There are a number of areas that can be explored further, starting with the following: importance of cultural diversity; academic collaboration and research; the significance of interdisciplinary cooperation; education reform and policy implications (see Fig. 1.2).

Importance of cultural diversity. International Educational Exchange is committed to enhancing students' understanding of and respect for different cultures. Through interaction with students from other countries and backgrounds, students can experience and learn first-hand about the values, beliefs, customs and traditions of other cultures (Kittler, 2018). Such cross-cultural experiences help to break down prejudices, stereotypes and cultural barriers, and develop students' global perspective and cross-cultural communication skills (Amit, & Wulff, 2022).

Academic collaboration and research. International educational exchanges provide opportunities for students and educators to engage in academic collaboration and research. Collaboration with the international academic community promotes knowledge sharing and innovation and advances the academic field (Yu, & Song, 2015). Students' participation in research programs develops their research skills, critical thinking and problem-solving abilities. International educational exchanges provide a platform for students and educators to learn and share knowledge with each

other.

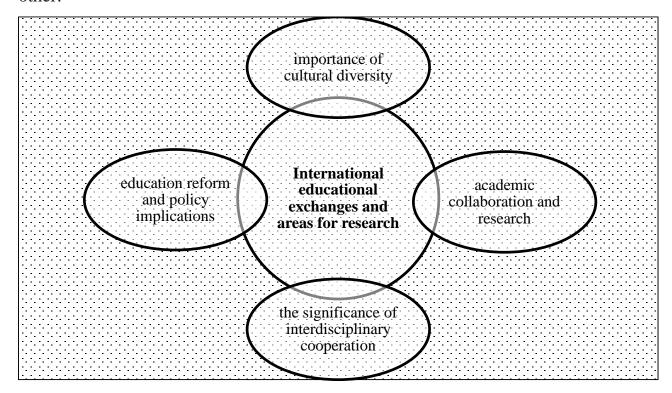


Fig. 1.2. International educational exchanges and areas for research

Students can benefit from other countries' education systems, subject specialities and teaching methods. At the same time, educators can further enhance their teaching abilities and pedagogy by exchanging experiences and best practices with their international colleagues. This mutual learning and knowledge sharing can help improve the quality of education and promote educational reform and innovation (Lehmann, & Trower, 2018; Xu, 2019).

The significance of interdisciplinary cooperation. International educational exchanges encourage cooperation and exchange between different subject areas. Through interdisciplinary cooperation, students can combine knowledge and skills from different disciplines to develop comprehensive thinking and the ability to solve complex problems. For example, combining scientific knowledge with the arts and humanities can foster creativity and innovative thinking. The impact of innovation and integration of scientific knowledge with humanities and arts education has also been verified in the literature, and Borgonovi's study found that the integration and innovation of science, culture and arts education is highly relevant to the development

of the refined arts, such as theatre, classical music, opera, ballet and dance (Borgonovi, 2004).

Education reform and policy implications. International educational exchanges help students and educators to understand the education systems and policies of different countries. By comparing and learning from the experiences of other countries, they can provide useful references for their own educational reforms and policy formulation. International educational exchanges can also promote cooperation and dialogue in the field of education and jointly explore ways to innovate and improve education. Under One Belt, One Road Initiative, there are more opportunities for educational exchanges and cooperation between China and the countries along the route, such as cultural exchanges and personnel communication, which is an upgrading of the internationalization of educational exchanges (Belt and Road Portal, 2021). Specifically, the educational concept of One Belt, One Road is to learn from each other, make progress together and share the fruits, which has increased the number of communication and exchange between local universities in China and the countries along the routes, and thus strengthened the awareness of international exchanges in local universities. Educational exchanges and academic cooperation between Ukrainian and Chinese universities have been increasing year by year, and visits and studies between the two countries have broadened international horizons while deepening exchanges and communication.

Overall, the concept of international educational exchange encompasses a number of aspects through which such an educational model helps to break down constraints, including geographical cultural diversity, mutual learning, interdisciplinary cooperation, equity and inclusion, sustainable development, language learning, awareness of global issues, academic cooperation, educational reform and policy implications, and cultural heritage preservation and transmission. Together, these dimensions build an integrated and holistic educational philosophy that aims to prepare students with global perspectives, intercultural communication and the ability to address global challenges in order to cope with the complexity and diversity of today's world. It promotes cooperation and understanding among the nations of the

world and contributes to building a more harmonious, inclusive and sustainable education for the future.

Globalization of education. Globalization of education is a social existence, a process in which education in human society continuously crosses spatial barriers and social barriers such as system and culture, and achieves full communication (material and informational) and more consensus and common action on a global scale, while continuously deepening the process of modernization (Zajda, 2022; Li, 2015; An, & Chiang, 2015). The globalization of education is an objective development trend accompanying the process of globalization, and is a manifestation of the modernization of education in the new stage of development, which is mainly manifested in the increasingly close connection of global education, the strengthening of interdependence, the global flow of educational resources, and the carrying out of educational activities on a global scale. It is characterized by openness, dynamism, global localization, hegemony and inequality.

Against the backdrop of the globalization of education, global education has shown the following development trends: the speed of the global flow of educational resources has accelerated, and global educational links have generally been strengthened; in the process of globalization, educational services have increasingly become part of the components of world trade in services, and global trade in educational services is booming; the globalization of education has prompted countries to step up their efforts to seize the international education market and compete for foreign student resources; a growing phenomenon of homogenous global education; an increasing exchange of students, teachers, courses, teaching materials, theories, systems, funds and projects around the world (see Fig. 1.3).

First, the speed of the global flow of educational resources has accelerated, and global educational links have generally been strengthened. The accelerated pace of the global flow of educational resources is mainly manifested in the increasingly frequent transnational movement of educational elements such as students, teachers, curricula, teaching materials, funds, projects, and even concepts and systems on a global scale. Under such circumstances, the exchange of educational personnel from various

countries, the number of international students studying abroad, and the number of cross-border educational collaboration projects, such as the exchange of international students, joint training, international academic exchanges, and international mutual recognition of diplomas, are also increasing. Educational activities among countries have increasingly crossed the boundaries of nation-states, and educational ties have generally strengthened (Chou, & Ching, 2020; Yu-fai, & Dines, 1993; Шитікова, 2017).

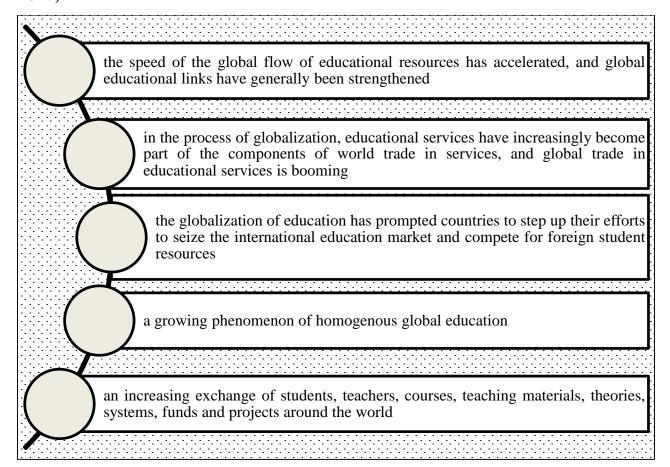


Fig. 1.3. Development trends of education globalization

Second, in the process of globalization, educational services have increasingly become part of the components of world trade in services, and global trade in educational services is booming. Education occupies a very important place in international relations and has an impact on the political economy (Андрощук, Андрощук, Бідюк, & Третько, 2023). It is regarded education and cultural affairs as the fourth and most humane component in addition to political, economic and military issues. Third, the globalization of education has prompted countries to step up their

efforts to seize the international education market and compete for foreign student resources (Pham, Hoang, Lai, & ey al., 2022; Kamens, & McNeely, 2010; Pilipchuk, Strelnikova, Batova, Subkhonberdiev, & Lyalyuk, 2022; Altbach, 2003, 2013). This has also led to a growing phenomenon of homogenous global education. An increasingly similar knowledge classification system and school curriculum system, as well as similar degree systems and degree awarding ceremonies, have emerged in the overseas education circle.

The concept of globalization of education has also triggered such a trend that there is an increasing exchange of students, teachers, courses, teaching materials, theories, systems, funds and projects around the world, and this exchange is not limited to two countries (Shayery, Zayed, Islam, Hossain, & et al., 2022; Авшенюк, 2010). It is not just a one-way output or input, but reflects the characteristics of two-way multilateral interaction. If the theory of globalization is influencing the way people look at various issues of education, then, on the other hand, education has become a significant force for globalization and an important means and tool for people to deal with the challenges of globalization. As the American scholar Nelly P. Stromquist (Stromquist, 2002) said, that "education has become an important driving force to promote globalization. As a means to succeed in a globalized world, education is now endowed with of great importance" (p. 68). The reason why education plays an important role in the process of globalization is closely related to the economic function of education (Stromquist, 2002). In addition, education has not only an economic function, but also a political and cultural function (Stromquist, 2002). In the era of globalization, countries around the world vigorously develop their own education and actively participate in the competition in the international education market, with the contribution of soft power theory in addition to the help of human capital theory. The theory of human capital reveals the important role of education in economic development and the theory of soft power reveals the important role of education in expanding the cultural influence of the country and enhancing the national soft power Therefore, countries around the world vigorously develop education not only because they value the enormous pulling effect of human resources on their economic

development, but also because it is a kind of soft-power contest and competition. The development of education in all countries of the world is bound to enter the track of globalization of education in order to adapt to economic globalization, which has become an irreversible trend (Liu, Cheng, & Chen, 2022; Edwards, Moschetti, & Caravaca, 2022).

According to the data provided by the World Bank database in 2021 (Zhenghong, 2022), and in accordance with the soft power index tool developed by Deng Zhenghong (2022), the soft power of countries around the world is evaluated and calculated in terms of index and value, and a list of the top 100 global countries in terms of soft power in 2022 is released.

According to the assessment, the value of Ukraine's soft power in 2022 will be \$16.127 billion, ranking 52nd in the order of the value of the soft power of the world's top 100 countries, and the soft power index will be 0.2015, ranking 72nd in the order of the soft power index of the world's top 100 countries (Zhenghong, 2022). After a 4% contraction in 2020, the Ukrainian economy saw a 3.2% growth in 2021, finishing with a nominal GDP of 545,9574 million hryvnia (Zhenghong, 2022).

According to the data published on the website of the World Bank, the GDP of Ukraine in 2021 reached a record high of about US\$ 200 billion (The World Bank, 2023). In the first quarter of 2021 the GDP of Ukraine declined by 2.2%, followed by growth of 5.7% in the second quarter and 2.7% in the third quarter, and a growth rate of 5.9% in the fourth quarter (The World Bank, 2023).

Ukraine's advantageous geographical location, excellent conditions for the development of agriculture, the so-called "breadbasket of Europe" reputation, coupled with the early priority of the development of heavy industry, military industry, with a long history of humanistic and artistic heritage, a comprehensive point of view are very attractive. This attractiveness is mainly reflected in the following aspects:

Cultural heritage: Ukraine has a rich and diverse cultural heritage, including language, literature, music, dance, art and architecture. Ukrainian culture has had a significant impact on the cultural development of Europe and the world. For example, Ukrainian folk dance and musical performances are highly visible on the international

stage. These cultural elements demonstrate Ukraine's unique identity and values and project a positive image of the country.

Education system: Ukraine has reputable higher education institutions and research institutes. International students are drawn to Ukraine by its educational system, which fosters scholarly and cultural exchanges. Additionally, advances in a variety of fields have been accomplished by Ukrainian scientific and technology research, which has greatly benefited the global population. In terms of athletic accomplishments, Ukraine has achieved noteworthy strides. At the Olympics, world championships, and other international athletic events, Ukrainian athletes have excelled. For instance, the Ukrainian teams in gymnastics, weightlifting, and wrestling have won multiple international championships. These athletic accomplishments have improved Ukraine's reputation and drawn attention from around the world.

Civil diplomacy and people-to-people contacts: Ukraine's civil diplomacy and people-to-people contacts play an active role at the international level. The active participation of the Ukrainian people in various cultural exchanges, tourism and volunteer activities promotes people-to-people contacts and friendship. In addition, Ukraine actively participates in a number of international organizations and forums, providing voices and perspectives for the resolution of global issues. By constantly developing and continuing to strengthen culture, education, science and technology and people-to-people contacts, Ukraine is further enhancing its soft power and exerting greater influence on the international stage.

As a great nation with a culture of 5,000 years, China's soft power is derived from its cultural confidence in its bones. China has a long and rich cultural history, including language, literature, philosophy, art, traditional medicine and martial arts. There is a long tradition of philosophical systems, such as Confucianism, Taoism and Buddhism, and these ideas and values have had a profound impact on Chinese society and culture. The fifty-six ethnic groups together constitute China's multicultural and ethnic identity, each with its own unique language, costumes, music, dance and traditional customs. This cultural diversity adds to China's unique charm and enriches global cultural diversity. Second, in terms of social media and international

communication campaigns, China's social media platforms such as WeChat, Weibo and TikTok have become increasingly popular internationally. These platforms provide a wide range of channels for the dissemination of Chinese culture, values and perspectives. Through social media, China is able to communicate and interact more directly with the global public, promoting cultural exchange and understanding.

As China enters the 21 century, the development of hard power is reflected in all aspects by leaps and bounds. Remarkable progress has been made in the field of science and technology innovation. The research and application of artificial intelligence, big data, cloud computing, new energy and other fields lead the world. Science and technology enterprises from China have emerged in the international market and achieved significant innovations, such as high-speed rail technology and e-commerce platforms.

In terms of peaceful diplomatic development and international contribution, China adheres to a foreign policy of peaceful development and advocates resolving international disputes and challenges through dialogue and cooperation. It actively participates in peacekeeping operations, international assistance and global problem solving, contributing to the maintenance of international peace and development.

As the only major civilization among the four ancient civilizations that has never interrupted its development, it is the ancient yet vibrant and innovative culture that attracts more and more international friends who prefer Chinese culture to study in China. These elements together shape China's image and influence in the international community. As China continues to develop and open up, its soft power will continue to grow and play a greater role on the global stage.

The Mobility Role of Teachers in International Education. The international flow of teachers and students is the most mature and oldest strategy for the internationalization of higher education (Knight, 2005; OECD, 2004, 2012; Zapp, Marques, & Powell, 2021; Ажажа, & Остенда, 2022; Пилаєва, & Яценко, 2017). The internationalization of teachers is the key to the success of internationalization of higher education. Teachers with an international perspective play a vital role in the international development of universities. Teachers can build a bridge of cooperation

between schools through academic cooperation. The role of teachers in the internationalization of education cannot be ignored. They are not only knowledge transmitters, but also important facilitators in developing students' global perspectives, intercultural communication and global problem-solving skills. Teachers' academic level and international exchange ability are the key factors affecting the level and hierarchy of the school's international exchanges, and their main role should not be ignored.

Through intercultural awareness, multilingual education, interdisciplinary cooperation, educational technology applications, global issue awareness and international cooperation, teachers are able to provide students with an educational experience that is internationalized and integrally literate, introducing course content on global issues and challenges in the classroom, organizing relevant discussions and projects, and stimulating students' attention to and reflection on global issues to develop their ability to solve global problems and motivate them to actively participate in social service and public welfare activities, participate in international educational cooperation programs and engage in professional exchanges and collaborations with faculty from other countries (Ван, 2014; Чирва, 2017). Such international cooperation and exchanges help students and teachers to develop international perspectives, learn about different cultures and education systems, and promote mutual learning and understanding. Scientific strategic planning, a series of institutional safeguards and financial support, coupled with flexible and innovative mechanisms and modes and high quality management services to support, in order to mobilize each teacher to engage in international exchanges of enthusiasm and initiative, give full play to the main role of teachers in international exchanges, and thus further enhance the school's international influence and international competitiveness (Вербицька, 2017; Огієнко, 2015). This is the key to advancing the globalization of education.

Generally speaking, the process of education is a process for people to acquire the ability to understand and transform the world, and it is also a process for shaping their souls. The shaping of the soul is also the shaping of the spirit, and any manifestation of the spirit first permeates a kind of culture. Education plays a role in cultural inheritance, in cultural development, and school education is the most basic and important part of cultural inheritance due to its systematic, centralized, efficient and popular characteristics in the process of cultural inheritance way (Кіктенко, & Дроботюк, 2021; Danko, 2022). Therefore, various countries in the world pay attention to the improvement of education level, increase their attractiveness for studying abroad, compete to seize the international education market, and compete for the resources of international students, not only because of the huge economic benefits brought by education, but also because of the cultural benefits it brings to people, values and other intangible soft power factors (Pidorycheva, & Trushkina, 2021; Дебич, 2016).

As two major countries in the world, Ukraine and China play an important role in the international community and actively participate in the development process of political multi-polarization, economic globalization and education globalization. Ukraine's resource advantages in the field of education are obvious to all (Антонюк, 2013; Їн, 2021). The common advantageous subjects are manifested in the following five aspects: engineering and science and technology (mechanical engineering, electrical engineering, aerospace engineering, energy engineering, information technology and computer science); agriculture and biological sciences (agricultural technology, crop breeding, agricultural management and the processing of agricultural products); medicine and life sciences; mathematics and physics; social sciences (economics, political science, sociology, psychology and education) (see Fig. 1.4).

First, in engineering and science and technology: Ukraine has significant strengths in the field of engineering and science and technology.

The country's universities and research institutions are strong in the fields of mechanical engineering, electrical engineering, aerospace engineering, energy engineering, information technology and computer science. Ukrainian engineers and scientists play an important role in international scientific and technological research and innovation.

Secondly, in agriculture and biological sciences: Ukraine is a large agricultural country and the field of agriculture and biological sciences is one of its superior

subjects. The country is endowed with rich agricultural resources and land, and has a wealth of experience and research results in agricultural technology, crop breeding, agricultural management and the processing of agricultural products.

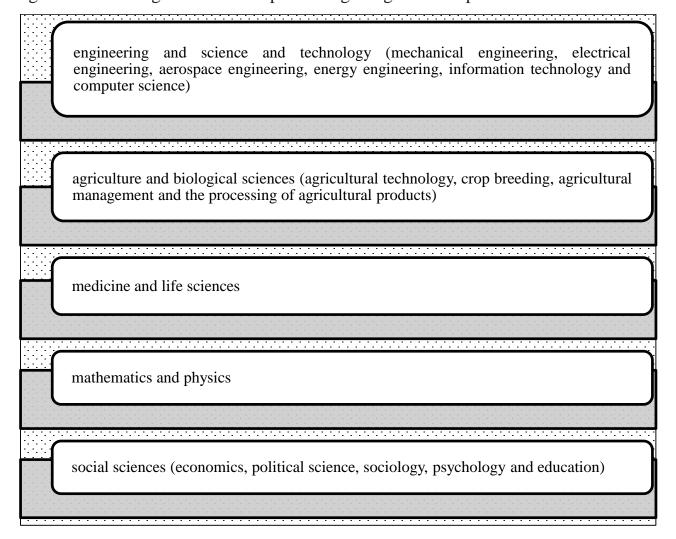


Fig. 1.4. The advantageous subjects of Ukraine

Thirdly, in medicine and life sciences: Ukraine also has certain advantages in the field of medicine and life sciences. Ukrainian medical schools and research institutes have a high level of medical education, medical research and clinical practice. The Ukrainian medical program attracts many international students, and Ukrainian medical research is internationally influential in a number of fields (Hladchenko, 2023; Oleksiyenko, & Shchepetylnykova, 2023).

Fourth, in mathematics and physics: Ukraine has produced many outstanding scientists and mathematicians in the fields of mathematics and physics. Ukrainian universities and research institutions are strong in teaching and research in mathematics

and physics. Ukrainian research in mathematics and physics is also influential at the international level.

Fifth, in the social sciences: Ukraine also has a number of superior disciplines in the social sciences, such as economics, political science, sociology, psychology and education. Ukrainian universities and research institutions conduct extensive research in these fields and provide opportunities for academic exchanges and cooperation between scholars at home and abroad.

From the point of view of Ukraine and China themselves, the two countries have the following favourable conditions for educational exchange and cooperation: First, the high level of relations between Ukraine and China has laid a solid foundation for exchanges and cooperation between the two countries in the field of education. China and Ukraine are the friendliest countries to each other, and after nearly 30 years of development. Since 2011, the relationship between the two countries has continuously stepped up to a new level, and has been upgraded to a new era of comprehensive strategic partnership between Ukraine and China. The high level of relations between China and Ukraine has not only created a favourable external environment for educational exchanges and cooperation between the two countries, but also laid a solid foundation for the continuous development of educational exchanges and cooperation between China and Ukraine (Popova, 2022; Ptashchenko, & Kurtsev, 2022).

Secondly, Ukraine and China have their own strengths in disciplines and specialties, which is conducive to promoting the complementarity of educational resources. In recent years, China's materials science and engineering, mechanical engineering, computer science and technology, electronic science and technology and other specialties have gained great development (Popova, 2022; Ptashchenko, & Kurtsev, 2022). Ukraine in aerospace, military and other cutting-edge technologies, computers, modern biotechnology and other fields of high level, occupies an important position in the world (Ma, & Soroka, 2020). The two countries have their own strengths in disciplines and specialties, and strengthening the educational exchanges and cooperation between the two countries is conducive to promoting the complementary advantages of the two countries in the cultivation of professional talents and realizing

mutual benefits and win-win situation.

Thirdly, with the deepening of economic globalization and the multipolarization of the world, international competition is becoming increasingly fierce. Innovation, on the other hand, is the source of scientific and technological development, the inexhaustible driving force of economic development and an important factor in enhancing national competitiveness. Therefore, in order to enhance their respective international competitiveness, both countries pay great attention to the training of internationalized talents, especially those with innovative capabilities.

These aspects have not only laid a good foundation for the exchanges and cooperation in the field of education between Ukraine and China, but also provided a broad space for the future development of the exchanges and cooperation in the field of education between the two countries (Дацьо, Іовчев, & Савчук, 2024). Exchanges and cooperation between the two countries in the field of education is an important way for both sides to cultivate innovative and internationalized talents and effectively improve the level of their respective educational development; it is an inevitable requirement for the two countries to correctly face the opportunities and challenges brought about by the globalization of education and to enhance the soft power of each country; and it is also an inevitable choice for both sides to comply with the trend of the development of globalization and to cope with the increasingly fierce international competition.

Therefore, whether from the perspective of conforming to the development trend of globalization, facing the opportunities and challenges of education globalization, and coping with the external environment of increasingly fierce international competition, or from the perspective of improving the level of education development of the two countries, enhancing the scientific and technological strength and national soft power of the two countries, upgrading the level of humanistic exchanges between Ukraine and China and deepening the partnership of comprehensive strategic collaboration between the two countries, it is necessary to strengthen the exchange and cooperation between Ukraine and China in the field of education. It is necessary to strengthen educational exchanges and cooperation between Ukraine and China, and it

is a matter that follows the trend of the times and meets the actual needs of the two countries.

By exploring the problems and causes of educational exchanges and cooperation between Ukraine and China and analysing the factors affecting the future educational exchanges and cooperation between the two countries, it also indirectly reflects the directions and paths of the two countries to enhance the effectiveness of educational exchanges and cooperation in the future, which to a certain extent may be of some help to the future development of educational exchanges and cooperation between the two countries and the formulation of China's new-era policy on Ukrainian education.

1.2. The theoretical basis of cooperation and academic exchanges development

In our society, at the beginning of the 21 century, people are paying more and more attention to the modernization of education and recognizing the importance of science and technology in developing the country and strengthening the country with talents. The increasingly fierce competition in the international community is, in the final analysis, inseparable from the competition for the cultivation of talents and educational resources. In today's multipolar world, education is oriented towards globalization. How to cultivate talents, how to train talents, and how to improve the development level of education have become the problems that colleges and universities around the world will face and must think about. Cultivating high-level talents with international vision and specializing in their own fields of expertise is an inevitable requirement and unchanging guideline for every country to participate in international competition. Organizing teachers and students of universities to participate in international exchange activities, promoting the development of cooperation between the two sides and carrying out a series of academic exchanges is a common practice for universities to improve their own level of operation and promote the development of the school. It is also to lay the theoretical foundation of education

for further cultivating innovative talents with global vision and international competitiveness. Broadening the concept of educational development, extending and expanding cooperation and exchanges with neighbouring countries, and attaching importance to the development of educational integration between institutions of higher education have become a must for the educational development of more and more schools (Савченко, 2012; Семенець, 2017).

In recent years, the cooperation between the universities of Ukraine and China has become increasingly close, which not only strengthens the friendship between the two countries, absorbs useful experience from each other, and promotes the educational cooperation between the two countries to a new level. It also promotes cooperation and exchanges between the two countries in education, academics, social cooperation and cultural development.

Educational exchanges and cooperation between Ukrainian and Chinese universities are not only about the complementarity of academic resources, but also about the international influence and reputation of both countries. Ukraine and China have unique academic resources and expertise in different disciplines. Through educational exchanges and cooperation, both sides can share each other's academic resources and complement their respective strengths. Ukrainian universities have rich historical and cultural research resources in certain subject areas, while Chinese universities have unique technologies and experimental facilities in the fields of science, technology and engineering (Peters, & Zhu, 2021). Through cooperation and exchanges, both sides can make full use of each other's resources and promote the improvement of academic research and teaching standards. Ukraine and China have different cultural backgrounds and educational systems, and educational exchanges and cooperation provide students and teachers with valuable opportunities for crosscultural exchange and understanding (Moroz, 2019; Hladush, 2017).

Such exchanges help students and teachers understand each other's values, educational methods and academic traditions. By interacting with partners from different cultural backgrounds, both parties can broaden their perspectives, enhance their ability to communicate and cooperate across cultures, and develop skills for

working and living in a globalized context. In terms of research projects and innovations, Ukraine and China can conduct joint research projects to explore research areas of common interest. Through collaborative research, both sides can integrate their research results and expertise to jointly solve complex problems and produce innovative research results. Such collaborative research not only promotes academic innovation, but also provides new ideas and solutions to address common challenges.

For example, in the field of scientific research, academic collisions are generated in the study of environmental protection, new energy technologies and so on. Cooperation and exchanges between Ukrainian and Chinese universities provide students with a wealth of opportunities for international exchange. These exchange programs and opportunities, in turn, lead to economic growth and the spread of culture between the two countries. Through joint participation in international cooperation projects and academic exchanges, Ukrainian and Chinese universities are able to demonstrate their academic strengths and research results and increase their recognition and influence in the international academic community. Such cooperation and exchanges also provide opportunities for Ukrainian and Chinese universities to attract more international students and faculty and promote internationalized educational development.

In summary, the development of educational exchanges and cooperation between Ukrainian and Chinese universities encompasses complementarity of academic resources, cross-cultural exchange and understanding, joint research projects and innovations, mutual student visits and exchange opportunities, and increased international influence and reputation. Such cooperation and exchanges are important for promoting academic development, innovation and global cooperation.

Of course, educational cooperation and academic development among international universities is based on a series of theoretical foundations, which cover a wide range of fields, provide theoretical sources and guidelines for academic exchanges and cooperation among universities, and promote cross-border educational cooperation and academic development. The theoretical foundations of educational cooperation and academic exchanges between Ukrainian and Chinese universities are

reflected in the following common areas: world systems theory; theories of knowledge creation and diffusion; social capital theory; cultural theory; social learning theory; the theory of academic internationalization; the theory of innovation and evolution; collaborative learning theory; social constructionist theory (see Fig. 1.5).

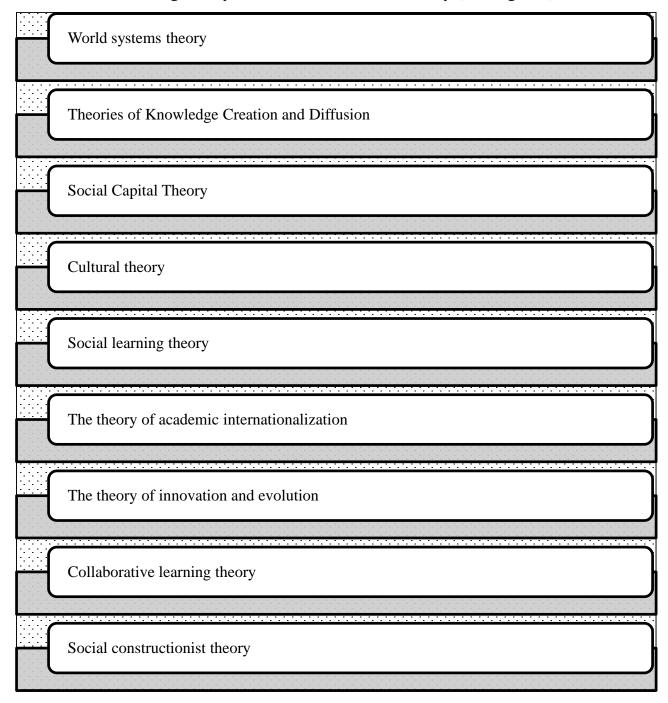


Fig. 1.5. Theoretical foundations of educational cooperation and academic exchanges between Ukrainian and Chinese universities

World Systems Theory: World systems theory is an important theoretical framework in the field of international relations, emphasizing the evolution and

interaction of the global system (Wallerstein, 1974; Chirot, & Hall, 1982). In the context of educational cooperation and academic development, world systems theory states that cooperation and academic exchanges among international colleges and universities take place in a globalized environment and are influenced by international political, economic and cultural forces (Wallerstein, 1974; Robertson, & Lechner, 1985). According to world systems theory, cooperation and academic development among international universities is related to the structure and power of the international system (Wallerstein, 1974; Van Rossem, 1996).

For example, the development of the global economy and the rise of multinational enterprises provide more resources and opportunities for university cooperation (Κα3ακοβα, Ηεγςτροєβα, & Γρομοβ, 2023). In addition, the stability of the international political environment is closely related to the formation of partnerships (Wallerstein, 1974). Cooperation and academic development among international universities need to take into account the changes in the global political economy and understand the interdependence and balance of interests among countries in order to develop appropriate cooperation strategies.

Cooperation and academic exchanges between Ukrainian and Chinese universities are reflected in the following points on the basis of the world systems theory: the world systems theory recognizes that the international political environment has an important influence on international cooperation and exchange. Cooperation and academic exchanges between Ukrainian and Chinese universities are influenced by the political relations between the two countries and the international situation. 2011 China and Ukraine jointly declared the development of strategic partnership. And the Joint Declaration of the People's Republic of China and Ukraine on the Establishment and Development of Strategic Partnership was signed (Verkhovna Rada of Ukraine, 2011), in which the formation of an atmosphere of mutual trust and cooperation between the two countries was emphasized, which helps to promote academic exchanges and cooperation programs. World systems theory emphasizes the importance of the international political environment for the conditions and mechanisms of cooperation and academic development.

In the Joint Declaration of the People's Republic of China and Ukraine on the Establishment and Development of the Strategic Partnership (Verkhovna Rada of Ukraine, 2011), the parties reaffirmed their mutual respect for the path of political, economic, social and cultural development, chosen by the other party to ensure the long-term stable development of relations between the two countries. The two sides expressed their firm support for each other on issues related to national sovereignty, unity and territorial integrity, which is an important element of the strategic partnership between China and Ukraine.

Ukraine reaffirmed its strong support for China's stance on Taiwan, acknowledging that there is only one China, with the Government of the People's Republic of China being the sole legitimate authority representing all of China, and that Taiwan is an inseparable part of China. In return, China reiterated its respect for Ukraine's independence, sovereignty, and territorial integrity.

The two sides agreed that cooperation in the fields of economy and trade, investment, science and technology, space, aviation, agriculture and infrastructure is an important direction of development of bilateral relations. The sides will vigorously promote exchanges and cooperation in the fields of culture, education, health, tourism and sports. The Parties will create all favourable conditions for further deepening the above-mentioned cooperation. The Parties will protect intellectual property rights according to their national laws and international treaties to which they are parties.

World systems theory recognizes that the global economic order has a substantial impact on international cooperation and exchange. Cooperation and academic exchanges between Ukrainian and Chinese universities are often accompanied by the development of economic cooperation. Ukraine and China jointly apply for research funding, share research facilities and resources, and realize mutual visits of faculty and students. The global economic order provides more resources and opportunities for academic cooperation between Ukrainian and Chinese universities and promotes the development of cooperation and scholarship.

Theories of Knowledge Creation and Diffusion: Knowledge creation and dissemination theories focus on the process of knowledge generation, sharing and

dissemination (Nonaka, & Toyama, 2003; Georgescu, & Popescul, 2015). In academic communication, these theories emphasize the importance of academic cooperation and interdisciplinary exchange for knowledge innovation and academic progress. Knowledge creation and dissemination theories also emphasize the role of mechanisms such as knowledge-sharing platforms, academic journals, and academic conferences to facilitate academic exchange and cooperation.

Knowledge creation and dissemination theory suggests that through academic collaboration and knowledge sharing, researchers can gain a broader perspective and knowledge resources, which can lead to new ideas and research results (Nonaka, & Toyama, 2003; Georgescu, & Popescul, 2015). Academic journals, academic conferences and academic communication platforms are important mechanisms for promoting knowledge creation and dissemination. Academic journals are an important way for scholars to publish their research results and express their views, and promote the progress and development of the academic community through peer review and academic debates. Academic conferences provide scholars with opportunities to exchange and present research results, and promote academic cooperation and interdisciplinary exchange.

Academic communication platforms, such as online academic communities and collaborative platforms, provide scholars with opportunities to communicate and collaborate online, and enhance academic interaction on a global scale. Under the impact of new media equipped with Internet technology, the development of media integration has become an important path for the development of educational academic construction. The form of integration of the traditional education classroom model and new media is not a simple merger or superposition, but the mutual integration of the two in terms of content, form, platform and other aspects, forming an integrated communication system through the closed loop of the academic ecosystem.

The theory of knowledge dissemination promotes cooperation among universities, and the intensity of international academic mobility is strengthened.

According to statistics, 67 Ukrainian universities have signed cooperation agreements with more than 200 universities, research institutes, colleges and

enterprises in China (Lanzhou University, 2023; Gan, 2021). For example, in 2012 the number was 59 universities, which increased to 131 in 2013 (China Development, 2023).

Among the various forms of cooperation: academic and scientific exchanges within the framework of these agreements, organization of joint academic and scientific forums and conferences, preparation and publication of educational and scientific materials, etc. In order to reduce resistance and facilitate the synchronization of educational programs for training experts, special approval is granted for dual diplomas (Γρομοβεμκο, 2020; Παβίρρα, 2023). In 2013, 49 Ukrainian college students and graduate students received national scholarships to study in top Chinese universities, and 100 Chinese citizens studied in top Ukrainian universities (Ukraine study abroad service network, 2023).

In 2019, Ukraine and China signed an agreement. In the 2019-2020 academic year, China provided 60 scholarships for Ukrainian students to study in Chinese universities (Ukraine study abroad service network, 2023).

Social Capital Theory: Social capital theory emphasizes the importance of social relationships and networks, arguing that interactions and collaborations between individuals and organizations can generate economic, social and cultural gains (Putnam, 2015). In scholarly communication, social capital theory emphasizes the importance of interpersonal relationships, trust, and cooperation, which can facilitate knowledge sharing, interdisciplinary collaboration, and innovation. The concept of social capital can be categorized into structural and cognitive social capital (Bourdieu, 1972). Structural social capital refers to the structure of interpersonal networks, including people's social connections, and connections between organizations and institutions (Claridge, 2018). Cognitive social capital refers to factors such as people's attitudes, trust and social identity, which are crucial for the development of cooperation and academic exchange (Bowker, Elyachar, & et al., 2019).

In educational cooperation and academic development among international universities, social capital theory is reflected in the inclusion of interpersonal relationships, trust and cooperation, which are important factors in promoting the

formation and development of partnerships (Liou, & Chang, 2008).

Establishing and maintaining strong interpersonal and trusting relationships helps to facilitate knowledge sharing, research cooperation and teaching exchanges. Cooperation and academic development among international universities cannot be achieved without a wide network of interpersonal relationships. Universities can expand their interpersonal networks through academic conferences, seminars, visiting scholars and international exchange programs. Through these exchanges, scholars can get to know each other, collaborate on research, and establish long-term partnerships. A culture of trust and mutual respect also plays an important role in this process. In addition, social capital theory emphasizes the diversity and resilience of partnerships (Diriye, 2019; Alkaher, & Gan, 2020). Cooperation and academic development among international universities requires flexibility to adapt to different cultures, systems and academic traditions. Mutual understanding and complementarity among partners can facilitate deeper and more lasting cooperation.

Cultural Theory: Cultural theory emphasizes the influence of culture on cooperation and academic development (Thompson, 2018; Burke, 2005). Cooperation and academic development among international universities and colleges involves exchanges and dialogues between different cultural backgrounds, values and educational systems. Understanding and respecting the cultural backgrounds of others and developing cross-cultural sensitivity and communication skills are essential to facilitate effective academic cooperation and exchange. Cultural differences may lead to communication barriers and misunderstandings. In international inter-university cooperation and academic development, scholars need to be aware of the differences between cultures, including language, values and academic traditions. There is a need to listen to and understand the perspectives of others in engaging in intercultural communication, and to view different cultural backgrounds as a rich resource. Respecting the values and habits of others and developing cross-cultural sensitivity and communication skills are key to effectively promoting academic exchange and cooperation. It also promotes intellectual pluralism and global perspectives, bringing new thinking and innovation to academic research (Smith, & Riley, 2008). Through the establishment of cross-cultural communication channels of mutual respect and understanding, it promotes interaction among partners, overcomes barriers brought about by cultural differences, and promotes the development of academic exchanges and cooperation. This is an important factor in establishing cross-cultural cooperation and communication mechanisms to promote the development of academic exchanges. (Edgar, & Sedgwick, 2007).

Many Chinese are very unfamiliar with Ukrainian culture, and even less familiar with its cultural and academic development. In fact, Ukraine has a rich historical heritage, including buildings, monuments, works of arts, etc. The most famous of these are Ukrainian churches and monasteries, such as Hagia Sophia in Kyiv and Lavra Monastery. These buildings demonstrate Ukrainian religious and cultural traditions, and integrate Orthodox and Ukrainian national characteristics in architectural style and art. In addition, Ukrainian rural culture plays an important role in the life and identity of Ukrainian people. Traditional villages, folk art and handicrafts in the Ukrainian countryside embody the traditional way of life and values of the Ukrainian people. Folk music, dance and costumes are also an important part of Ukrainian culture. In the field of literature and art, famous Ukrainian writers such as Taras Shevchenko and Ivan Franko, whose works explore Ukraine's history, culture and national identity. Ukrainian artists have also made important contributions in the fields of painting, sculpture and music. Ukrainian music and dance are also important parts of its cultural heritage. Ukrainian folk music is known for its distinctive melodies and styles of instrumentation, such as the bandura, trembita, kobza, lira and tsymbaly.

These cultural elements not only reflect the historical, religious and national identity of the Ukrainian people, but also create a unique cultural image for Ukraine on the international stage. At the same time, these cultural elements have served as an important basis for Ukraine's cultural exchanges and cooperation with other countries.

Over the past 30 years since the establishment of diplomatic relations between China and Ukraine, the relationship between Ukraine and China has become increasingly close, and the number of Chinese students studying in Ukraine has increased day by day. Their studies in music, painting and other art fields have injected

new vitality into the development of Chinese art. On the other hand, China's Confucius Institutes have also recruited a large number of Ukrainian students, who have shown a strong interest in Chinese culture. The Chinese departments of Taras Shevchenko National University of Kyiv (Ukraine study abroad service network, 2023) and Kyiv National Linguistic University (Ukraine study abroad service network, 2023) have trained batch after batch of outstanding students who love Chinese culture and Chinese language. They also act as a bridge for the communication of Ukrainian and Chinese cultures and contribute to the long-term development of the two countries.

In general, the educational exchange and cooperation between Ukrainian and Chinese universities is an active exploration to promote a new model of international exchanges and cooperation between the two countries, and will add new positive energy to further development of cooperation and exchanges between the two countries. This kind of exchanges and collisions from different cultures of the two countries, and the cooperation and exchanges brought about by cultural differences are profound and interesting. It not only broadens the understanding and publicity of Ukrainian and Chinese people to each other's national culture, but also lays good conditions for the academic exchanges between universities and the development of education in the two countries.

Social Learning Theory: Social learning theory suggests that learning occurs through the process of observing and interacting with others, and it emphasizes the impact of the social environment and social interaction on individual learning (Bandura, 1971; Akers, & Jennings, 2015). In academic communication, social learning theory states that by collaborating and interacting with other scholars, individuals can acquire new knowledge, perspectives, and skills and contribute to the growth and development of the academic community (Bandura, 1971). Collaboration and interaction are core elements of social learning. By collaborating with others, scholars are able to share knowledge, experiences, and methods, thereby accelerating their own academic growth (Rotter, 2021; Marougkas, Troussas, Krouska, & Sgouropoulou, 2023). In the process of collaboration, scholars are also able to further enhance their own academic abilities by observing and imitating the behaviours and

ways of thinking of others.

Social learning also emphasizes the importance of academic communities (Bandura, 1971). An academic community is a community of scholars who share a common understanding, common goals, and mutual support. In an academic community, scholars can learn from, inspire and challenge each other, forming a beneficial academic environment that promotes academic exchange and innovation.

Theories of Academic Internationalization: The theory of academic internationalization is concerned with the interaction of higher education institutions with the process of globalization (Li, & Xue, 2023; Wu, & Zha, 2018). The theory states that educational cooperation and academic development among international higher education institutions is part of the strategy of higher education institutions to pursue internationalization (Zha, Wu, & Hayhoe, 2019; Flander, Guzmán, Schilter, Tulppo, & Da Wan, 2023). Academic internationalization improves the quality of teaching and scientific research by facilitating academic exchanges, transnational cooperation and resource sharing. The core of academic internationalization is the establishment of partnerships. Partnerships between international universities can be in the form of academic cooperation agreements, bilateral exchange programs, joint research centres, and so on. These partnerships promote the exchange and sharing of knowledge, mutual visits of faculty and students, and collaborative research. Through international cooperation, HEIs are able to access a wider range of resources and expertise, and improve the quality of teaching and research. Academic internationalization also encourages HEIs to adopt a series of measures, such as recruiting international students, offering bilingual or English-medium courses, and organizing international academic conferences, in order to foster an internationalized academic environment. Through exchanges with international students and scholars, universities are able to gain diverse perspectives and cultural backgrounds, bringing new thinking and innovation to academic development.

The theory of academic internationalization emphasizes transnational cooperation and diversity as key factors in promoting academic development and innovation (Knight, 2007; Robson, 2011). Educational cooperation and exchanges

between Ukrainian and Chinese universities provide a platform that enables scholars and students from both countries to work together across national borders on research projects, academic conferences and scholarly exchange activities. By interacting with partners from different cultural backgrounds, educational systems, and academic traditions, both sides can learn, inspire, and challenge together, promoting academic diversity and innovation. The theory of academic internationalization broadens the channels for students to engage in international exchanges and the development of international perspectives, which are essential for the development of globally competitive talents (Zayachuk, 2021). Educational cooperation and exchanges between Ukrainian and Chinese universities provide students with a wealth of opportunities for international exchange. Through student exchange programs, university exchange scholarship programs and other forms, students can study at universities in the other country, participate in research projects or take part in academic activities (De Wit, & Altbach, 2021). This international exchange not only enriches students' academic experience, but also develops their cross-cultural communication skills and international perspective. Interdisciplinary cooperation and the development of comprehensive skills are key to meeting global challenges and promoting innovation. Educational cooperation and exchanges between Ukrainian and Chinese universities encourage scholars to engage in interdisciplinary collaborative research. For example, collaborative research projects can involve experts and scholars from multiple disciplinary fields working together to solve complex problems. Such interdisciplinary cooperation fosters scholars' integrative skills, enabling them to integrate knowledge and methods from different disciplines to promote academic innovation and solve realworld problems (Brandstädter, & Sonntag, 2016). Such cooperation and exchanges provide a wealth of academic resources, promote the internationalization of academia and the exchange of knowledge, and foster academic development, innovation and global cooperation.

On June 23, 2017, the Forum of Chinese and Ukrainian University Rectors was held at Kyiv National University in Ukraine, where more than 30 heads of universities and colleges from both China and Ukraine attended.

Peng Long, president of Beijing Foreign Studies University (BFSU), said that BFSU opened a Ukrainian language program in 2003, with 8 students in the program, and established a Ukrainian Centre in 2016, which is dedicated to carrying out research on Ukrainian language, culture and national conditions, promoting the teaching of the Ukrainian language, introducing Ukrainian history and national culture, and introducing classic works in the field of Ukrainian literature and art.

Liu Hong, president of Dalian University of Foreign Languages, said that Dalian University of Foreign Languages, relying on the One Belt, One Road Initiative mechanism of humanistic exchanges, has comprehensively strengthened exchanges and cooperation with Ukrainian colleges and universities. In 2015, Dalian University of Foreign Languages opened Ukrainian language elective courses. The Centre for Ukrainian Studies of the university has hired four scholars from Ukrainian universities, and Chinese and Ukrainian teachers have jointly completed the preparation of the textbook of "Ukrainian Regional Studies", and are in the process of preparing the textbooks of "Ukrainian National Situation" and "Ukrainian Language Introductory Courses". In the area of reciprocal sending of foreign students, five students from the university went to study at Kyiv National Linguistic University, and 10 Ukrainian students were accepted to study Chinese language, five of whom were granted scholarships by the Chinese government (Lanzhou University, 2023).

Rui Zhiyuan, president of Lanzhou University of Technology, said that the school actively responded to the construction of One Belt, One Road Initiative and continued to expand cooperation and exchanges with Ukrainian universities. In 2015 and 2016, a total of 5 students majoring in materials, welding and construction engineering were sent to V. N. Karazin Kharkiv National University, National Metallurgical Academy of Ukraine and Kyiv National University of Construction and Architecture. There they studied for a master's degree, and one young teacher visited Ivano-Frankivsk National Technical University of Oil and Gas (Lanzhou University, 2023).

Yu Baotao, vice-president of Anhui University, said that the school and V. N. Karazin Kharkiv National University jointly established the Confucius Institute

in 2008. So far, 10 teaching positions have been established in eastern part of Ukraine, training 25,371 students. 1,300 students passed the Chinese Proficiency Test, and 310 outstanding Ukrainian youths were sent to study in China (Lanzhou University, 2023). In 2012, the Art Troupe of Teachers and Students of Anhui University went to Ukraine for a tour, which was very popular.

Innovation and evolutionary theory: The theory of innovation and evolution emphasizes the role of cooperation and communication in the innovation process (Uzzi, & Spiro, 2005). It argues that by sharing knowledge and resources with others, individuals and organizations can generate new ideas and solutions that promote the evolution of knowledge and the development of innovation (Uzzi, & Spiro, 2005). In academic communication, innovation and evolution theory points out that innovation and interdisciplinarity in academic fields can be promoted through academic collaboration and interdisciplinary communication.

Educational cooperation between Ukrainian and Chinese universities encourages interdisciplinary cooperation and cross-border innovation. Collaborative projects can cover a wide range of disciplinary areas, such as science, technology, engineering, arts and humanities. Through interdisciplinary cooperation, scholars and research teams can work together to solve complex problems, integrate knowledge and methods from different disciplines, and realize innovative research results. This interdisciplinary cooperation and cross-border innovation helps drive evolution and progress in the field of education (O'Rourke, Crowley, Eigenbrode, & Wulfhorst, 2013). This is also reflected in innovations in educational technology and distance education. The application of educational technology and the promotion of distance education have brought about entirely new possibilities and opportunities in the field of education (Rashid, & Elahi, 2012). Through educational cooperation, both sides can share and explore experiences in best practices of educational technology, online teaching platforms, and sharing of teaching resources. This application of educational technology and the promotion of distance education have facilitated the innovation and evolution of education, making teaching more flexible, personalized and interactive.

Collaborative Learning Theory: Collaborative learning theory emphasizes the

relationship between cooperation and learning, and believes that through cooperative learning, a deeper understanding can be achieved, knowledge can be jointly constructed, and students' cooperative ability can be cultivated (Vygotsky, 2019). In the cooperation and academic development among international universities, collaborative learning theory provides guidance, encouraging students and teachers to promote knowledge sharing and interaction through cross-border cooperative projects and academic exchanges (Ravana, Wong, Chua, & Palpanadan, 2023; Awang-Hashim, Yusof, Benlahcene, Kaur, & Shanmugam, 2023; Li, Cheung, Shen, & Lee, 2023).

Social Constructivist Theory: Social constructivist theory considers knowledge and reality as products of social construction and emphasizes the importance of social interaction and language (Gergen, 1985; Alismaiel, Cifuentes-Faura, & Al-Rahmi, 2022). In the context of educational cooperation and academic development among international universities, social constructionist theory provides a theoretical basis that emphasizes the process of building shared understanding and co-constructing knowledge through dialogue and exchange (Mohajan, & Mohajan, 2022; Omodan, 2022).

These theoretical foundations provide a guiding framework and theoretical support for understanding the development of cooperation and scholarly communication. They emphasize the importance of social relationships, knowledge sharing, social interaction, cultural differences, innovation and factors that influence learning in international education. Understanding and applying these theories helps to recognize the trend of how to rapidly develop internationalization strategies between Ukrainian and Chinese universities in the context of globalization, to further promote cross-border academic cooperation and exchanges, to guide these theories into practice, and in practice, return to the source of theory, so as to combine theory with practice and thus drive the development and innovation of academic research and teaching, help to promote the development and improvement of Ukrainian-Chinese university cooperation and academic exchanges.

1.3. Methods of research

The study of the development trend of internationalized educational cooperation and academic exchanges between Ukrainian and Chinese universities must adopt a multidisciplinary research perspective, and this thesis presents a comprehensive study from the perspectives of sociology, educational policy, history, and other disciplines. First of all, the research of the development process of internationalization of university education needs to collect, organize, summarize and analyse the relevant history, and sort out the evolution of the internationalization process and development characteristics of Ukrainian and Chinese universities from the perspective of pedagogy, so as to lay a relevant foundation for the subsequent research. Secondly, the analysis of the dynamics and impact of internationalization development of Ukrainian and Chinese universities is related to social policy and other factors, therefore, it is necessary to borrow the research perspectives of sociology and educational policy. Specific research methods are the tools and means to discover new things and phenomena, to put forward new points of view and new theories, or to reveal the inherent laws of the things in the research. The specific research methods used in this study include literature research method, background analysis method, qualitative research method, case study method and so on.

Literature research methodology. Literature research method is a commonly used research method that aims to explore a specific topic, issue or field by systematically collecting, organizing, evaluating and analysing relevant literature. It is a research method based on existing literature, which is used to summarize and evaluate existing research results, to understand the current status and progress of the research field, and to provide a theoretical basis and reference for one's own research (Morse, 2020). Literature research method is usually used to conduct types of research such as literature review, theoretical research and conceptual analysis. Its main purpose is to collect and analyse existing literature related to the research topic, and to extract, summarize and synthesize relevant information and opinions from it. Through the literature research method, researchers can understand the latest developments,

theoretical frameworks, methods and findings in the research field, so as to guide their own research design, theoretical construction and empirical analysis. Documentation is crucial to social research because it not only reflects social reality and historical events, but also constructs social reality and historical practice.

This study takes Ukraine and China as the main body of research, thus the collection of literature on Ukraine and China is the focus, which provides a guarantee for the authenticity of this study. At the same time, the development and advancement of internationalized education practices in Ukrainian and Chinese universities require literature as a research support, including government policy documents, reports of educational research institutes, and research results of relevant scholars. Therefore, the literature research method is one of the important research methods for this study to understand the background, history, current situation, experience, and problems of cooperation and academic exchanges between Ukrainian and Chinese universities from both vertical and horizontal levels.

The literature research method is used to sort out and analyse relevant studies on international educational cooperation, state educational cooperation between China and Ukraine, and the model of state educational cooperation between the two countries, and to grasp the foundation of research in this field. The object of the literature research method contains both historical documents emphasizing the time span and all relevant materials in the horizontal span. If historical research is an inductive logical analysis emphasizing chronological order, literature research covers a wider range and is a deductive path based on a comprehensive collection of relevant literature around a certain topic to analyse and research and draw conclusions. This study mainly collects data from online digital platforms and China Knowledge Network Database (China National Knowledge Infrastructure, 2022), monographs, periodical papers, etc. related to topics and keywords such as "international education", "study abroad education", One Belt, One Road, "internationalization of higher education", "educational exchange between Chinese and foreign universities", "international exchange education", etc. material to sort out the exchange and cooperation between Ukraine and China (Zhou, 2016). The characteristics of their theoretical foundations, research themes, and

research methods are analysed, and the conclusions of relevant studies are summarized and evaluated. Since the study of international educational exchange and cooperation involves a wide range of areas such as the political environment of the country, policy, educational policy, the process of massification economic internationalization of higher education, international politics and foreign relations, in the process of literature research, we not only focus on longitudinal historical research, but also pay attention to international relations, national policies and theories of internationalization of higher education related to international student education, with a view to clarifying the object and scope of research, summarizing the results of the existing research, and exploring the development trend of exchanges and cooperation between Ukraine and China in the context of a richer and more three-dimensional social background.

Understanding educational cooperation by analysing important educational policies and legal texts is an important way of literature research method. This study defines and interprets the concepts and theoretical foundations by reviewing the relevant literature on international exchange, international educational cooperation, and internationalization of higher education. At the same time, by combing the relevant literature at home and abroad, the research status of international educational exchange, etc. is understood, which lays the foundation for the research ideas and directions of the thesis. By reviewing the internationalization of higher education and the study abroad exchange programs for students in colleges and universities, etc. the measures and strategies of promoting internationalization and international educational exchange in the countries under study are obtained. By reviewing the literature to understand the principles and application of the theory of the world system, the theory of communication, the theory of social capital, and the theory of social learning principles and applications of the literature, we obtained the theoretical basis for studying Ukraine and China in international educational cooperation and academic exchanges, as well as applied research methods that combine theory and practice of international educational exchange. The role of the literature study has enabled us to have a certain grasp and understanding of the existing situation and results, and also provided a wealth of

information and research perspectives of different scholars for further research.

Background analysis method. Background analysis is also a common research method, used to systematically analyse and evaluate the background of the research topic or problem (Morse, 2020). It aims to understand and explain the background, environment and relevant factors of the research question, and provide a comprehensive background framework and theoretical basis for the research. Background analysis is widely used in research in various subject areas, including social sciences, humanities, natural sciences, etc. The purpose of contextual analysis is to provide a comprehensive contextual framework for research in order to better understand and explain the sources, impacts, and potential influencing factors of a research question. It can help researchers obtain relevant information about the research topic, including background knowledge of history, society, culture, politics, economy, science and technology, etc., to better understand the source, impact and potential influencing factors of research questions.

When conducting a background analysis of educational exchanges between Ukrainian and Chinese universities, background information related to educational exchanges needs to be collected. This includes the educational systems, policies and regulations, the history of education development, the settings and characteristics of higher education institutions, etc. in the two countries. By collecting this information, we can understand the background and characteristics of the education systems of both sides, and provide a basis for further development of exchanges and cooperation. Through the analysis of background information, we found the similarities and differences between the education systems of Ukraine and China, as well as the influencing factors on educational exchanges practice development. The analysis may include comparative analysis of educational policies, assessment of higher education institutions, comparison of subject areas, etc. By analysing the background information, it is possible to gain an in-depth understanding of the characteristics and development trends of the Ukrainian and Chinese education systems, and to provide a theoretical and practical basis for educational exchanges. Secondly, it is very important to grasp the understanding of the factors influencing the background. By analysing the

background, it is timely to understand the support of government policies, cultural differences, and the distribution of educational resources. Finally, the contextual significance and value of educational exchanges between Ukrainian and Chinese universities are explained by combining the background information and analysis results. At the same time, educational exchanges can also strengthen humanistic exchanges and friendly cooperation between the two countries, contributing to the promotion of their relations.

The international situation is changing, and political exchanges and cooperation between countries will be affected by the political situation. The same is true for educational cooperation and exchanges, but educational cooperation has its own characteristics.

The cooperation between China and the Soviet Union had a long history. After the disintegration of the Soviet Union, China carried out various cooperation with the countries of the Commonwealth of Independent States on the premise of mutual respect and mutual trust. Judging from the history of educational cooperation between China and the Soviet Union, exchanges and cooperation in different periods had different purposes. In the 20th century, the purpose of Sino-Soviet education cooperation was mainly to cultivate professional talents for China's political and economic development. Since the 21st century, the more important purpose of educational cooperation between China and countries along One Belt, One Road Initiative is to make mutual use of the superior educational resources of each country and expand the space for educational cooperation among countries. Educational cooperation can provide intellectual support for China and countries along One Belt, One Road Initiative and provide experience for cultivating more professional talents with an international perspective. Under the guidance of the international environment of China's One Belt, One Road Initiative, the educational cooperation between Ukrainian and Chinese universities starts from their respective educational needs, mutual respect and mutual trust, in order to maintain long-term educational cooperation.

The importance of contextual analysis is that it provides a comprehensive background framework, enabling researchers to better understand the environment and

influencing factors of the research problem (Cohen, Manion, & Morrison, 2007). This thus enables more precise characterization of research questions, design of research methods, and interpretation of research findings and implications. Context analysis is an important tool for researchers to provide context to a research question and to help the researcher better understand the significance and contribution of the study, promote the smooth progress of educational exchanges, promote the development and improvement of the educational system, and provide more reference for the cooperation between Ukraine and China.

Qualitative Research Methods. Qualitative research method is a method or perspective to study things according to the attributes of social phenomena or things, the contradictory changes in motion and the internal regularity (Cohen, Manion, & Morrison, 2007). The method is based on generally recognized axioms, a set of things. The historical facts of the qualitative research form the basis of analysis, starting from the contradictions of things, describing and explaining the differences in the research sub-disciplines, and directly grasping the main aspects of the characteristics of things based on certain theories and experiences. This research method aims to describe, explain and understand the characteristics, meaning and complexity of phenomena (Morse, 2020). Compared with quantitative research methods, qualitative research methods emphasize the in-depth exploration of the research object, focusing on the meaning and context behind it, rather than relying solely on quantitative and statistical analysis. Qualitative research methods are applicable to a wide range of disciplinary areas, including the social sciences, humanities, education, and psychology (Morse, 2020). It is typically used to study issues of high subjectivity and complexity such as human behaviour, perceptions, experiences, and social interactions.

Qualitative research mostly uses participant observation and in-depth interviews to obtain first-hand information, and the specific methods are mainly participant observation, action research, and historical research method (Cohen, Manion, & Morrison, 2007). Among them, participant observation is a method often used in qualitative research. Participant observation has the advantage of not only observing the reasons, attitudes, effort procedures, and decision-making basis for the actions

taken by those being observed (Cohen, Manion, & Morrison, 2007). Through participation, the researcher is able to gain the feelings of a member of a particular social situation and therefore a fuller understanding of the action. Then, by analysing the information obtained from observation and interview methods, etc. Inductive method is adopted to make it gradually transform from concrete to abstract, so as to form a theory. Contrary to quantitative research, qualitative research is based on "well-founded theory". Theories formed in this way emerge from the interconnections of many different pieces of evidence collected, a bottom-up process.

Social activity belongs to the field of human practice, which is the source of the emergence and development of human society, and human life is a complex humanistic phenomenon characterized by the rich and unique different experiences of individuals and the interweaving of many factors. Society is a part of this complex social and humanistic phenomenon, containing both objective facts and humanistic values and meanings, which are historical and social in nature. Qualitative research is especially suitable for disciplines with strong practicality such as society. Because it emphasizes an in-depth understanding of social phenomena and respects practitioners' explanations of their behaviour, it is conducive to problem solving and the development of social practice (Cohen, Manion, & Morrison, 2007). It is worth noting that qualitative research grew up in the reflection and criticism of quantitative research. The use of qualitative research methods, on the one hand, is conducive to grasping social activities as a whole; on the other hand, it is conducive to a more comprehensive and correct understanding of social phenomena.

In studying the development of cooperation and academic exchanges between Ukrainian and Chinese universities, qualitative research methods can be used to gain insight into the needs and motivations of Ukrainian and Chinese universities with regard to educational exchanges and cooperation. This leads to a better understanding of their cooperation needs and goals. When international educational exchange and cooperation between two countries involves exchanges and cooperation between different cultures, backgrounds and educational systems, qualitative research methods can help researchers gain an in-depth understanding of the challenges, obstacles and

solutions that may be faced in cross-cultural exchanges. Through participant observation, in-depth interviews and other methods, the researcher can gain insight into the cultural differences and communication barriers between the participants and propose solutions accordingly.

In addition, qualitative research methods can be used to gain a deep understanding of the effects and impacts of international educational exchanges and cooperation, learn about the impact of collaborative projects on students, faculty, and institutions, including aspects of academic achievement, cultural perception, and interpersonal relationships. This helps to evaluate the effectiveness and sustainability of cooperation projects and provide suggestions and improvement measures for future cooperation. Being a member of the Ukrainian higher education community, I am also a beneficiary of the international education exchange program between Ukraine and China, and I have deeply felt the characteristics and charm of Ukraine through my life and study in this country. Many Chinese students studying in Ukraine are attracted by Ukraine's culture and education. In the process of establishing, developing and maintaining Ukraine-China partnership, through in-depth communication and expanding cooperation it helps to identify the key factors of a successful experience and provide guidance and suggestions to promote a more effective partnership. In conclusion, the strengths of qualitative research methods lie in their ability to provide in-depth understanding and explanation of complex phenomena, to provide a wealth of data and detail, and to examine the subjective experiences of individuals and groups.

Case Study Method. The case study method is a research method that examines a specific case in depth and in a comprehensive manner. It aims to conduct a detailed, comprehensive and in-depth study of a specific case (eg. an event, organization, individual or social phenomenon) (Cohen, Manion, & Morrison, 2007). It involves detailed observation, documentation and analysis of one or more cases in order to gain an in-depth understanding of the characteristics, context, dynamics and influencing factors of the case. The case study method can be applied in a variety of subject areas (Morse, 2020).

In a case study, the researcher first needs to select a representative and research-

worthy case. The selection of a case can be based on a variety of factors, such as the purpose of the study, typicality, uniqueness, feasibility, and so on. Then, the researcher needs to clearly define the scope, boundaries, and research object of the case to ensure the focus and consistency of the study. Secondly, in order to gain a comprehensive understanding of the characteristics, history, circumstances and influencing factors of the case. Data can be collected through a variety of methods, such as literature review and archival analysis, using multiple data sources and multiple data types in order to obtain comprehensive and multi-perspective information. Data analysis is a key component in case studies (Morse, 2020). The researcher systematically analyses and interprets the data collected to reveal the characteristics, patterns, and relationships of the case. As well as a combination of qualitative and quantitative analysis. The researcher needs to summarize and generalize conclusions about the cases. These conclusions should be based on the analysis of the data and the construction of theories to answer the research questions and achieve the research objectives with appropriate evidence and arguments.

The strength of the case study method is that it provides a detailed and in-depth understanding of the individual case, revealing the complexity and uniqueness of the actual situation. It emphasizes the exploration and explanation of cause-and-effect relationships, change processes and key factors in a particular context (Cohen, Manion, & Morrison, 2007). The case study method is commonly used in the fields of theory construction, phenomenon explanation, practice reference and policy formulation, and is particularly suitable for those complex, multidimensional and special research problems. However, case studies also have some limitations, such as the representativeness, generality and extrapolation of individual cases. Therefore, when applying the case study methodology, it should also be combined with other research methods for comprehensive analysis.

As an example we may consider the experience of Lviv Polytechnic National University. Before the implementation of the One Belt, One Road policy, the number of Chinese students studying in Lviv was relatively small. However, since the implementation of the One Belt, One Road policy advocated by China in 2013, the

number of Chinese students studying in Lviv has been increasing year by year. Especially the explosion of the famous Chinese musician young singer Zhou Shen has made more and more Chinese people aware of the existence of the beautiful city of Lviv. Because Zhou Shen graduated from Mykola Lysenko Lviv National Academy of Music, the policy support between the two countries, Ukrainian music, dance, painting and art of the advantageous resource disciplines, favoured by more and more Chinese students.

The number of Chinese students in Ukraine is also developing in an upward trend. Affected by the new coronavirus, web-based online education has grown rapidly and become an important trend in education due to the limitations imposed by the epidemic virus. In the face of school closures and student isolation caused by the epidemic, web-based online education offers a solution for educational continuity. Schools and educational institutions can provide content and courses through online platforms, and students can receive education from home via the Internet, ensuring continuous learning. Online education on the Internet breaks the limits of time and space, allowing for more flexible and independent learning. A rich and diverse range of educational resources and learning opportunities can be accessed both domestically and internationally. Online education promotes resource sharing and global cooperation (Liu, 2018). Educational institutions can share teaching resources and courses with other institutions and students, promoting the sharing and flow of global educational resources (National Development and Reform Commission, 2018). At the same time, students and teachers can participate in global learning projects, seminars and cooperative projects through the online platform, broadening opportunities for international exchanges and cooperation.

Conclusion for chapter 1

In the first chapter "Academic cooperation and exchange of university teachers and students as a scientific and pedagogical problem" the specific connotation of international education concepts and education globalization from the perspective of research overview and categories is presented. This chapter clarifies the theoretical foundations of the development of educational cooperation and academic exchanges between Ukraine and China. The research methods of the study of are presented, as well as the current general direction of cooperation and exchanges between Ukraine and China in the context of international education are determined.

The first chapter "Academic cooperation and exchange of university teachers and students as a scientific and pedagogical problem" describes the academic cooperation and exchange between two countries and their universities as an important way of promoting intellectual innovation and academic development. It is determined that this is an inevitable trend in the face of the international environment of the 21st century, the competition for talent and the development of a strong scientific and educational country. The chapter outlines the significance of academic cooperation and exchange between the two countries regarding university faculty and students in terms of the main research concepts, the theoretical foundations of the development of educational cooperation and academic exchanges between Ukrainian and Chinese universities.

This study showed that it is necessary to understand the theoretical basis, which underpin the cooperation and academic exchange between the universities of Ukraine and China, and to recognize its necessity and importance, as well as the positive impact. The evidence from this study suggests that this kind of cooperation greatly increased in the context of One Belt, One Road Initiative implementation. The research data highlight the significance of concept of international educational exchange, which prioritise the education as one of the main components of international relations development (education as a means for country's culture support and development; education as a social institute with significant role in in society development and stability assurance; education as a means for internal (national) and external (international) values spreading; education as a means for youth's talents development and recognition as well as multicultural development; education as a means for inclusive global community development). In the chapter the international educational

exchanges and areas for research have been determined: importance of cultural diversity; academic collaboration and research; the significance of interdisciplinary cooperation; education reform and policy implications.

This study strengthens the idea, that for academic cooperation and exchange of university teachers and students experience development of great importance there are the concept of cultural diversity (enhancing participants to understand and respect different cultures); concept of academic collaboration and research (promotes personal and institutional development, knowledge sharing, innovations implementation in various knowledge branches); concept of interdisciplinary cooperation (promotes personal and professional development, fosters—creative and innovative thinking development); concept of education reform and policy implications (helps to improve education using the best practices of foreign countries); concept of education globalisation (to cross spatial and social barriers, achieve cooperation on a global scale); concept of mobility role of teachers in international education (to transfer knowledge, to facilitate the development of students' global perspectives, intercultural communication and global problem-solving skills).

The common advantageous areas of cooperation and exchange in academic spheres of two countries have been defined: engineering and science and technology (mechanical engineering, electrical engineering, aerospace engineering, energy engineering, information technology and computer science); agriculture and biological sciences (agricultural technology, crop breeding, agricultural management and the processing of agricultural products); medicine and life sciences; mathematics and physics; social sciences (economics, political science, sociology, psychology and education).

This research has raised important questions about the theoretical basis of academic cooperation and exchange of university teachers and students' development. According to world systems theory the development of international relations as well as academic cooperation and faculty and students exchange depends on the evolution and interaction of the global system. In the context of social learning theory, academic cooperation and exchange of faculty and students provides possibilities for learning

and development in the context of both: internal cognitive processes and social environment. Knowledge creation and dissemination theory suggests that through academic collaboration and knowledge sharing, researchers can gain a broader perspective and knowledge resources, which can lead to new ideas and research results. The analysis of social capital theory proves the significance of social relationships and networks, arguing that interactions and collaborations between individuals and organizations can generate economic, social and cultural gains. Cultural theory emphasizes the influence of culture on cooperation and academic development as far as it involves exchanges and dialogues between representatives of various cultural backgrounds, with different values and educational systems.

According to social learning theory, learning occurs through the process of observing and interacting with others in the framework of the social environment and social interaction on individual level. The theory of academic internationalization claims that educational cooperation and academic development among international higher education institutions is part of the strategy of higher education institutions to pursue internationalization. In the context of the theory of innovation and evolution, by sharing knowledge and resources with others, individuals and organizations can generate new ideas and solutions that promote the development of knowledge and innovation. Collaborative learning theory emphasizes the relationship between cooperation and learning, and considers the possibilities for faculty and students to deepen comprehension, to construct knowledge, to cultivate cooperative skills, etc. The study has determined that the similar ideas are presented with social constructionist theory, which considers knowledge and reality as products of social construction and emphasizes the importance of social interaction and language.

The chapter presents the research methods (literature research method, background analysis, qualitative research method, the case study method), used to conduct the comprehensive study of academic cooperation and exchanges of faculty and students from Ukraine and China, taking into account the results of scientific research in pedagogy, educational policy, philosophy, sociology, history, etc.

It is concluded that academic cooperation and exchange between Ukrainian and

Chinese universities is of great significance and value guided by research methodology and theoretical foundations. The application of appropriate research methods provides insights into the process, influencing factors and effects of academic cooperation and exchange. Through effective organization and support in practice, academic cooperation and exchanges of university students and faculty promotes the complementarity of educational resources between Ukraine and China, which improves the quality of teaching and learning in both countries, support scientific research, knowledge and innovations development and their dissemination.

The materials of this chapter have been highlighted in the following publications: Wang, 2023b, 2023c, 2023d, 2023f; Mukan, & Wang, 2023a, 2023b.

CHAPTER 2

PECULIARITIES OF COOPERATION AND ACADEMIC EXCHANGES DEVELOPMENT IN THE DISCOURSE OF UKRAINIAN-CHINESE EXPERIENCE

The second chapter "Peculiarities of cooperation and academic exchanges development in the discourse of Ukrainian-Chinese experience" clarifies the social, economic, cultural aspects of cooperation and academic exchanges between Ukrainian and Chinese universities as well as substantiate the legal basis of cooperation and academic exchanges development.

2.1. Social, economic, cultural aspects of cooperation and academic exchanges between Ukrainian and Chinese universities

Education can form human capital, cultivate cognitive ability, accumulate cultural capital, so as to promote its consumption in the economy and culture, and drive the development of economy, culture and education (Zi, 2018). The importance of education in the culture and economy development is obvious.

The essence of cooperation and exchange among universities is a kind of exchange activity in which the academic communities participate on a spiritual level (Круглашов, & Швидюк, 2024; Кукалець, 2021). Educational and academic exchanges are an important part of this, which is also the scope of cross-cultural exchanges (Mitchell, 1986). In the international context of cultural exchange and academic communication, and in the face of these practical problems in the development of cooperation, with the deepening of international university cooperation in recent years, communication and contact between universities have been strengthened in the process of academic development and practice. In the current educational context, it is very important to gradually explore a sustainable path for the development of intercultural cooperation in higher education.

The world today is undergoing complex and profound changes, with the world economy recovering slowly, development diverging, and profound adjustments brewing in the pattern of international investment and trade and in multilateral investment and trade rules, as well as serious development problems facing all countries (Xin Hua news, 2015). Against this backdrop, China has put forward One Belt, One Road Initiative, which aims to carry out regional cooperation on a wider scale, at a higher level and at a deeper level, and to jointly build a regional economic cooperation architecture that is open, balanced and inclusive (Belt and Road Portal, 2021). In order to promote the cooperation and development between regional economies, China actively promotes the implementation of One Belt, One Road Initiative, and Ukraine, as the first country to respond to China's initiative, actively supports the implementation of this policy between the two countries. Exchanges and cooperation in social aspects, economy and trade, medical care, science and technology, cultural communication and exchange, education, etc. (Wang, 2021) will continue to develop in depth. The implementation of these exchange and cooperation programs has provided international students from both countries with diverse learning opportunities, development space and employment platforms.

The social cooperation between Ukraine and China can cover a wide range of fields and different levels. For example, the two countries have carried out cooperation with multinational organizations, cross-field cooperation, and cross-border cooperation. The so-called cooperation of transnational organizations refers to the cooperation between governments of different countries, NGOs, and international organizations aimed at jointly solving global social problems, such as climate change, poverty, and human rights. Cross-field cooperation refers to cooperation between different industries and fields to promote resource sharing, knowledge exchange and innovation (for example, cooperation between academia and industry, cooperation between science and technology and medical fields). "Cross-border cooperation is cooperation between different occupations and professions, promoting crossdisciplinary cooperation and integrated problem-solving skills" (Ye, 2011, p. 47). Examples include cooperation between medicine and engineering, and between art and

science. This all belongs to cross-cultural cooperation, which is the exchange and collision between different cultures and nationalities, as well as cooperation between different educational institutions and schools, including student exchanges, teacher exchanges, joint curricular development, research projects, and so on. And that the purpose of generating such intercultural exchanges is ultimately to promote cultural exchange, mutual understanding and respect, broaden the channels and platforms to carry out multi-faceted contacts and exchanges in economic, political and cultural policies, and reach a number of cooperation such as international tourism projects and other types of cooperation (Zhang, 2021). These are just some of the common examples of social cooperation between Ukraine and China, but in fact the forms and areas of social cooperation are very diverse. The purpose of social cooperation is to solve problems, promote development and realize common goals and interests through collective efforts and the sharing of resources. Such exchanges and cooperation help to build a more inclusive, pluralistic and harmonious society and promote educational progress and social development.

The changes brought about by the construction of the "Belt and Road" to China and Ukraine in terms of economy and trade: Since entering the 21st century, China's economy has risen rapidly, with the total national economy going from 10 trillion yuan in 2000 to exceeding 100 trillion yuan in 2020, expanding the size of the economy by up to 10 times, an achievement that has attracted worldwide attention. On May 14, 2020, President Xi Jinping proposed at a meeting of the Standing Committee of the Political Bureau of the Central Committee to deepen supply-side structural reform, give full play to the advantages of China's super-sized market and the potential of domestic demand, and build a new development pattern in which the domestic and international double cycles are mutually reinforcing. China has proposed a new development pattern in which the domestic and international double-cycle are mutually reinforcing (Wang, 2021).

According to the National Bureau of Statistics, from 2016 to 2019, China's total import and export volume to countries along the "Belt and Road" increased year by year, with an average annual compound growth rate of 14%. In 2019, China's total

import and export volume to countries along the "Belt and Road" reached 926.9 million yuan, an increase of 10.8% year-on-year, 7.4 percentage points higher than the growth rate of the country's total import and export. The "Belt and Road" has become an important growth point of my country's import and export trade (Belt and Road Portal, 2021).

Since the construction of "Belt and Road", the trade scale between China and Ukraine has been expanding, especially in recent years, the trade volume between China and Ukraine has increased significantly (Kravchenko, Yu, Dobrovolska, & Scryl, 2020; Wang, 2021; Yastrubskyy, & Wang, 2023; Zhang, & Fang, 2018; Zhang, 2022). As shown in Table 2.1, the total trade volume of the two countries from 2016 to 2020 has continued to increase, with an increase of more than US\$ 600,000. China's trade volume of exported goods to Ukraine shows an increasing trend in 2015-2019 and decreases in 2020. China's import trade volume from Ukraine decreases yearly in 2015-2017 and increases yearly in 2018-2020. In addition, there is a gap in the scale of import and export trade between the two countries. As can be seen from Table 2.1, in 2015 the trade balance between China and Ukraine was small and China was in a trade deficit. In 2016-2019 the trade balance between China and Ukraine was large and China was in a trade surplus, and in 2020 the situation moderated (Wang, 2021, p. 55).

Table 2.1

The trade balance between China and Ukraine

Year	2015	2016	2017	2018	2019	2020
Total trade between China and						
Ukraine	707383	670443	737669	966748	1191354	1466881
(Ten thousand U.S. dollars)						
China's exports to Ukraine (Ten	351658	421682	504108	701900	739984	687808
thousand U.S. dollars)						
China-Ukraine import	355725	248761	233561	264848	451370	779073
(Ten thousand U.S. dollars)						
China-Ukraine trade balance	-4066	172922	270546	437053	288613	-91264
(Ten thousand U.S. dollars)						

Ukraine is also trying to make full use of the favourable opportunity of China's economic development model transformation to promote Ukraine's expansion of exports to China. On the basis of fully respecting market rules, the two countries will

promote the institutionalization of cooperation and accelerate the construction of trade facilitation between the two countries. After the COVID-19 epidemic, the Internet-based development of international economic and trade has accelerated, and China is actively cultivating new formats and models of international trade.

After the epidemic, new forms and modes of the foreign trade economy have played an important role, such as cross-border e-commerce and the market procurement trade mode. In order to strive to expand two-way trade with co-construction countries, especially to increase the import of high-quality products, so that more countries can share the dividends of China's super-large-scale market, China vigorously develops "Silk Road E-commerce" and promotes new formats such as cross-border e-commerce. The new model is integrated with One Belt, One Road Initiative, adds new impetus to the construction of major trade channels such as the China-Europe Railway Express and the New Land-Sea Corridor. In addition, in order to create a free and convenient international environment for the joint construction of the "Belt and Road", China supports more Ukrainian enterprises and Ukrainian products to explore the Chinese market, encourages more Chinese enterprises to invest in Ukraine, and promotes further upgrading of industrial cooperation between the two countries by taking advantage of Ukrainian talents, technology and geographic advantages.

2020 became a record year in the history of China-Ukrainian trade, with trade volume exceeding US\$ 15.4 billion. From January to July 2021, the total value of China's exports to Ukraine was US\$ 5.53 billion, a year-on-year increase of 27.3%; the total value of China's imports from Ukraine was US\$5.416 billion, an increase of US\$2.128 billion over the same period in 2020, a year-on-year increase of 63.1%. Ukraine's grain exports to China grew (in monetary terms) 2.5 times, vegetable oils 4.7 times and iron and other ores 5 times (Zhao, 2021). In other words, these three categories of goods account for 86% of Ukraine's exports to China.

Chinese metallurgical companies are trying to diversify the sources of such raw materials, which will enable Ukrainian producers to increase their supplies. In the first half of 2021, the volume of Ukrainian iron ore exports to China fell by 31%, while the

revenues of Ukrainian exporters increased by 55% due to high prices. According to the Ukrainian Customs, in the first five months of 2021, trade between Ukraine and China increased by 35% and 48%, respectively, compared to the same period last year (Zhang, 2021, p. 13).

The growth of trade between the two countries in recent years is based on the accelerated growth of Ukrainian exports of goods to China. In 2020 alone, Ukrainian exports to China almost doubled compared to the previous year, from US\$ 3.6 billion to US\$7.1 billion. Compared to the previous year, exports increased by a factor of 2.6. Since August, China has implemented a strict carbon-neutral policy, and the compression of high-energy-consuming industries has also expanded demand for Ukrainian iron ore and metallurgical products to some extent. Combined with the impact of high commodity prices, Ukraine's exports to China grew at a staggering rate of 40%. China accounts for more than 20% of Ukraine's grain and sunflower oil exports and more than 40% of its ores (Zhang, 2021, p. 13).

In agriculture, China and Ukraine have strong complementary industries, and the two countries make full use of their comparative advantages to complement each other's industries in the process of trade, so as to achieve a win-win situation. As a large agricultural country, Ukraine is rich in agricultural products. As a country with a large population, China has a large demand for food. China is the second largest grain importer for Ukraine in 2019-2020 with 6.2 million tons of imports, up 1.8 million tons compared to 2019, according to the Ukrainian Port Grain Export Survey (Wang, 2021). In January-June 2020 China imported up to 36,873.13 tons of soybeans from Ukraine. It can be seen that there are great prospects for cooperation in agricultural products between China and Ukraine. Known as the "granary of Europe", Ukraine has advanced production and processing technologies for agricultural products and can continuously export grain to China.

In terms of transportation, Ukraine is at a key point in the Middle East corridor, with well-developed road and sea transportation systems, and the freight volume of railway transportation ranks seventh in the world, and the passenger transportation volume ranks sixth in the world. Ukraine's well-developed transportation system can

ensure the efficient operation of trade in goods between China and Ukraine. In terms of investment, in order to attract foreign investment, Ukraine has set up new institutions and continuously improved the construction of investment facilities, which has greatly mobilized the enthusiasm of our investors to invest in Ukraine. Ukraine's favourable economic development has provided strong support for the sustained and in-depth development of China-Ukraine trade (Wang, 2021).

The cooperation and academic exchanges development is important for economic development of two countries. This is because cooperation and academic exchanges promote the flow of knowledge and technology, which leads to opportunities for business cooperation, better productivity and innovation through cooperation, optimization of resource allocation, promotion of trade and investment, and promotion of economic growth. Academic exchanges and cooperation promote innovative cooperation across disciplines and national boundaries, generating new business models and entrepreneurial opportunities, which also contribute to the establishment of stable and friendly international relations between the two countries. Therefore, cooperation and academic exchanges between the two countries are crucial to the development of economic and trade exchanges between the two countries.

In the field of public health, cooperation in the field of health care also promotes the exchange of education between Ukraine and China. Under the impact of a new coronavirus epidemic, this model also reflects the positive side, but it is also facing challenges. On the one hand, Ukraine has sufficient hospital and public health capacity to provide a sufficient number of beds at the beginning of the epidemic. But on the other hand, lagging economic development has resulted in insufficient investment in Ukrainian hospitals and the public health system, leading to outdated equipment and difficulties in the widespread application of advanced diagnostic and therapeutic techniques. This new situation also provides opportunities for China-Ukrainian economic and trade relations with Chinese companies. The public health system is a vital component of the infrastructure, and the spread of infectious diseases will make society pay a price. However, due to the non-competitive and non-exclusive nature of public goods, even individual private enterprises pay governance costs, but they cannot

prevent free users. Costs are hard to pay off. "Among the distinctive feature of One Belt, One Road Initiative is the provision of public goods on a transnational scale, of which infrastructure is an important part. However, with the outbreak of the New Crown epidemic, the importance of public health system-building as a public good has increased significantly and can be recognized as an important public good in addition to infrastructure. At this point, institutions such as the Silk Road Fund and the Infrastructure Investment Bank can provide not only infrastructure development but also financing for transnational public health systems. In addition to participating in the construction of transnational public health systems, Chinese enterprises can also actively explore the Ukrainian market in the fields of medical devices, medicines, sanitary and protective supplies and first-aid materials. They can also actively engage in cross-border logistics construction and cross-border e-commerce to gain business opportunities in the Ukrainian market (Zhu, 2020).

In Ukraine now 68% of people believe in Chinese medicine and are willing to choose Chinese medicine to treat their diseases (Liu, 2020). The Government is also actively working in the health sector to localize and legalize Chinese medicine in Ukraine, as well as to establish an educational system, clinical system and medical guidelines for Chinese medicine, and to achieve recognition of the results of scientific research in Chinese medicine and the registration of related products and machinery.

The culture of Chinese medicine is profound and has accumulated the essence of Chinese culture and philosophy. Whether it is health management, disease prevention or treatment, it has more prominent efficacy. According to Tima, a representative of the Ukrainian Association of Oriental Medicine and deputy director of the Centre for International Cooperation, Ukraine has been carrying out the study of sanatoriums for nearly a century and is at the forefront of the world, it has inherited the professionals, academic achievements and basic service facilities from the Soviet period, and has formed a complete set of medical standards (Liu, 2020).

However, China has a vast territory and rich natural factors, so it has great potential to develop nursing homes. In the future, the two countries may be able to use the sanatorium model as a breakthrough point for cooperation in the medical field. The

concept of Chinese medicine coincides with Ukrainian sanatorium science, which is also a means of using various natural resources to intervene in human health. Therefore, there is a natural basis for cooperation in the field of medicine between China and Ukraine (Liu, 2020).

In 2019, Roman Ilyk, Deputy Minister of Health of Ukraine, led a delegation to China and made his first stop at the Foundation, where he met with Xu Anlong, President of the Beijing University of Chinese Medicine (Liu, 2020). The two sides decided to strengthen cooperation in the field of Chinese medicine, including sending each other teachers and students for educational exchanges and training, setting up relevant research institutes and research and development organizations, and cooperating in medicine, education and scientific research at the same time, so as to make the cooperation in the field of medicine between China and Ukraine more practical, bigger and stronger. In the same year, Alexander Samsonov, President of the Ukrainian Association of Oriental Medicine, visited Beijing University of Chinese Medicine. He had a talk with Xu Anlong, and the two sides reached a preliminary intention to establish a Chinese medicine centre in Ukraine in the future.

In 2018, Lanzhou University led a delegation to visit the Ukrainian National Academy of Medical Sciences and signed a memorandum of understanding on interuniversity cooperation, laying the foundation for long-term and in-depth cooperation between the two parties in the field of high-level personnel exchanges and training in the medical field and scientific research. During the visit, the two sides carried out clinical management, scientific research and teaching, and personnel exchanges and cooperation in the digestive system, tumour research and clinical multi-modal multidisciplinary comprehensive diagnosis and treatment, tissue engineering and organ transplantation, and signed a memorandum of cooperation in the medical field. This has played a positive role in promoting the development of medical and health services between the two countries (Liu, 2020).

In the field of science and technology, the complementary advantages of Ukraine and China are obvious. Despite its scientific and technological achievements, Ukraine does not specialize in transforming them into profits. The participation of Chinese

enterprises in cooperation with the National Academy of Sciences of Ukraine and other institutions that possess core technologies, and the establishment of a mechanism for the conversion of technology into profit, have enabled Chinese enterprises to acquire some core technologies and have also helped Ukraine to resolve its economic difficulties (Naumowitz, 2016). As an example, the establishment of cooperation projects in the field of aircraft production is a point of interest for Ukrainian-Chinese cooperation in the field of mechanical engineering.

Antonov SE is a leading Ukrainian developer and manufacturer of aviation equipment and a recognized world leader in the broadest market of destination transport aircraft. The company works with 76 countries and territories around the world. The cooperation program between Ukraine and China under the AN-178 program began with a letter of intent signed by the Chinese company Beijing A-Star Aerospace Technology and Antonov SE during the first flight of the AN-178 in Kyiv. The document specifically provides for the purchase of two AN-178s by a Chinese company in Ukraine and the further organization of the production of the aircraft in China (Shyian, 2020).

In addition, the Chinese airline company AVIC plans to establish joint production of aero-engines with the Ukrainian state enterprise Ivchenko-Progress. The president of the Chinese airline L. Zuming announced the intention of joint production. The conference was held at the China International Air Show in China from November 11-16, 2014. Earlier, China Aviation Industry Corporation (AVIC) expressed interest in rapidly completing the production of aircraft engines AI-322 and AI-322f in China (Shyian, 2020).

Today, the Ukrainian side is considering building Chinese warplanes with Ukrainian engines, which they plan to deliver to the Ukrainian Air Force. The reason for the Chinese interest is that in 2013, China has already achieved a successful result in the form of the first six L-15 training aircraft, all of which were produced with Ukrainian engines and all of which were exported. According to the person in charge of AVIC, the start of the export of the third-generation training aircraft means that China has officially entered the international market and exported the latest military

products. Beijing Skyrizon Aviation Industry Investment Co, Ltd. has established a joint venture with the Ukrainian Automobile Company (Shyian, 2020).

At Airshow China 2016, Beijing Skyrizon announced the possibility of establishing a joint venture for the production of D-136, MC-500V and TV3-111, VMA-SBM1V helicopters and utility airplanes AI-450C, engines 18T for turbojet D436-148FM and others. Start-up of production financed by Beijing Skyrizon, with technical support from the Ukrainian side. It is understood that China has invested US\$100 million in the modernization of Ukrainian Motor-Sich production equipment and signed an agreement to invest another US\$150 million in an advanced R&D and pilot production centre. Such an ambitious program requires that it not only directly increases the number of jobs at Motor-Sich, but also improves the competitiveness of Motor-Sich products. This has great potential for cooperation between the defence industries of China and Ukraine (Shyian, 2020).

There is a two-way interactive relationship between education and culture. Although culture affects all aspects of education, education also provides conditions and vitality for the existence and development of culture. The influence of education on culture is mainly realized through cultural transmission (Jing, 1996).

In the sphere of Ukrainian-Chinese cultural exchanges, it is necessary to pay attention to the impact of media publicity. The role of the media and educational institutions should be utilized in order to increase mutual understanding between the peoples of Ukraine and China, and to develop elite personnel for educational and academic cooperation between Ukraine and China. First of all, the role of the media should be strengthened. At present, Chinese media, such as Xinhua News Agency and China Central Television, have branches and correspondents in Ukraine. Relying on these few journalists, Chinese viewers are able to receive direct reports from Ukraine from time to time.

From 2017 to 2018, CCTV 4's "Home from Afar" program produced a series of programs on One Belt, One Road in Ukraine, which was well received by Chinese viewers. Local media, such as Tianjin TV, have also produced programs about Ukraine (Zhao, 2018). Media coverage is very important to enhance mutual understanding and

trust between Chinese and Ukrainian people. In addition, Xinwei Group and the Embassy of Ukraine in China have jointly organized the Ukraine House, which plays an active role in promoting information about Ukraine to China (Zhao, 2018).

Taking into account the real needs of the development of bilateral relations between Ukraine and China, in order to provide the Ukrainian and Chinese public with a deeper and more direct understanding of Ukrainian and Chinese culture. It is necessary to update the information on political, economic, cultural and academic exchanges and cooperation between the two countries, as well as to present information on cooperation between the two countries. It is significant for both Ukrainian and Chinese media to intensify exchanges and cooperation in the field of media and information dissemination, and to produce joint programs on the situation in the other country, especially on national culture and customs. This will bring the people of the two countries closer to each other.

Secondly, for the long-term development of bilateral economic and trade cooperation to cultivate the corresponding talent needs, it is also necessary to pay attention to the exchange and use of language. At present, the use of Ukrainian in Ukraine is becoming more and more common, especially in official occasions. However, there are not many talents in China who are proficient in Ukrainian. Encouraged by the Ministry of Education of China, some foreign language colleges and universities have successively opened Ukrainian language teaching in recent years, but the cultivation of talents requires conditions and time (Zhao, 2018). Ukrainian studies in China are an endangered discipline, and the development of Ukrainian studies centres established by the Chinese Academy of Social Sciences and some universities are facing problems such as a shortage of human resources, and the influence of research institutes on government decision-making is very limited. Under such circumstances, China needs to increase its support for the dissemination of information about itself and research institutions on China, so as to enable Ukrainian society to have a relatively objective and comprehensive understanding of China, and to promote the Ukrainian government's decision-making in the direction of diplomacy with China in the interests of both sides. It is necessary for the Ukrainian government

to support the teaching of the Ukrainian language and Ukrainian studies in China, and to train and reserve the appropriate personnel for the long-term development of economic and trade cooperation and strategic partnership between the two countries.

Culture has a direct impact on education, and cultural diffusion includes both vertical transmission and horizontal diffusion. The vertical transmission of culture is the continuation of culture in time, which is manifested in the transmission of knowledge, concepts, values and norms within the same cultural system. The horizontal diffusion of culture is the flow of culture in space, manifested as the contact and borrowing of different cultures. Both the vertical transmission and horizontal diffusion of culture must be realized with the help of education. Through education, the previous generation transmits its values and cultural traditions to the new generation. The values of society determine attitudes towards the educational process, the teacher-student relationship, the goals and methods of education. Each country has its own characteristics in different cultures.

Ukraine and China are two countries with different histories and cultures. China, as one of the four ancient civilizations, had early educational beliefs in Confucianism, Taoism, rationalism, and Buddhist thought, which contributed to the formation of a style of education towards China. The influence of Chinese education is manifested in the authoritative style of teaching, the high status held by teachers, the importance of education as a means of acquiring knowledge and reading skills, and the importance of examinations. Students have a high sense of responsibility and pressure. The goal of education is to cultivate talents and create a harmonious society. By the modern period, China, reformed and opened to the outside world and influenced by the Soviet model of education, had much in common with Soviet education. Open education incorporated the best educational models from various countries. In the same period, the influence of Ukrainian education was manifested in the reform of education by rejecting of the educational heritage of the Soviet Union and choosing European standards.

In fact, there are some similarities between the educational cultures of the two countries, Ukraine and China. In terms of children's education, traditional Ukrainian children's cultural education is influenced by the Orthodox Church and is very similar to traditional Chinese educational culture. In China, for pre-school education, under the influence of Confucianism, the family is considered to be the main place of education for young children, and family education has a direct impact on the development of young children, and the main goal of family education is to cultivate children to become a useful person. Guided by Neo Confucianism, the main content of educating children is how to do good deeds, treat others kindly, and live in peace with others. In Ukraine, the same culture of family education has become the centre of the culture of children's education. In modern times, both Ukrainian and Chinese higher education have attempted to reform education using the best foreign theories and practices. China's cultural education now attracts a large number of foreign students and teachers. The Ukrainian educational culture has shifted to a more personalized – student-centred approach to teaching and learning, optimizing university teaching, and focusing more on professional practice and closer to European standards during the teaching period.

Regarding the cooperation between the two countries in the field of culture, it is indispensable to have the impetus of the governments of Ukraine and China, and the co-signing of the construction of the Silk Road Economic Belt has significantly broadened the space for strategic cooperation between Ukraine and China. Cultural exchanges and interactions not only come from official governments, but also from non-governmental organizations and individuals, including the Federation of Overseas Chinese. The federation organizes corresponding research, study, symposium, performances, exhibitions and other activities, contacts and exchanges with relevant organizations in Ukraine, and introduces traditional Chinese culture to Ukraine in different forms, which not only strengthens the cultural exchanges between Ukraine and China, but also promotes the Chinese culture (Jiang, 2014). The Ukrainian-Chinese Committee for Friendship, Peace and Development is the main channel of civil interaction between Ukraine and China, and has played an important role in consolidating the social relations and public opinion base of friendship between Ukraine and China (Jiang, 2014).

As a language dissemination institution set up by China overseas, the Confucius Institute is receiving increasing attention from both the academic community and the public (Don Starr, 2009; Hartig, 2015; Hubbert, 2014; Zhu, 2018a). As an institution, the function of the Confucius Institute is not only to teach Chinese language and spread Chinese culture, but also to represent a country and a culture in itself (Stambach, 2015; Zhu, 2018b). The Confucius Institute in Ukraine also plays the role of cultural communication and exchange, providing the Ukrainian people with a window to the Chinese culture. Currently there are 5 Confucius Institutes and 1 Confucius Classroom in Ukraine. They are the Confucius Institute at the Confucius Institute at Taras Shevchenko National University of Kyiv, The Confucius Institute at Kyiv National University, The Confucius Institute of V. N. Karazin Kharkiv National University, The Confucius Institute at K. D. Ushynskyi South Ukrainian National Pedagogical University, The Confucius Classroom at the First Oriental Language High School in Kyiv (Huang, 2020).

Established in May 2007 at Taras Shevchenko National University of Luhansk, the Confucius Institute is the first Confucius Institute in Ukraine. Since its establishment, the Confucius Institute has been continuously expanding its scale of operation, and the number of students has grown from 145 in 2007, when the institute was first established, to 3,355 in 2013 (Li, & Ye, 2010). In addition, 13 Chinese language teaching centres have been established in Kyiv, the capital of Ukraine, and other schools and universities, initially forming a Chinese language teaching network, which has developed into a centre of Chinese language and culture in eastern Ukraine (Li, & Ye, 2010).

The Confucius Institute has completed the translation into Ukrainian of three sets of books by the State Hanban, namely Chinese Geography, Chinese Culture and Chinese History, and the adaptation into Ukrainian of two textbooks, namely Chinese Paradise and Contemporary Chinese (Li, & Ye, 2010). Special mention should be made of the Chinese Corner at the Confucius Institute. Since the establishment of the Confucius Institute, it has become possible for Ukrainian students to learn more about

China's today and yesterday, Chinese culture and art. The Chinese Corner is a good example of the two-way cultural exchange between the two countries. Therefore, it is a popular activity among students both inside and outside the school. In the Chinese Corner, students discussed topics of interest, organized games and competitions, sang songs and poems, visited various local museums, and went on excursions together. The Chinese Corner has a weekly theme, such as recipes, chess, Chinese knots, papercutting, ethnic musical instruments, kites, ethnic costumes and so on. During the activities of the Chinese Corner, in the process of communicating directly with Chinese friends, Ukrainian students learned more about China and its cultural traditions than in the classroom. Every year, the Confucius Institute organizes teachers and Chinese students to carry out summer camps to teach Chinese to Ukrainian children and spread Chinese culture. After visiting Confucius Institutes, Prof. Koppelder, a famous German sinologist, mentioned in his "Report on the Study of Chinese Language Teaching on the Silk Road" that Confucius Institutes of Taras Shevchenko National University of Luhansk are the most representative Confucius Institutes he visited, and they are the pioneers of Chinese language teaching in Ukraine (Huang, 2020).

Promoting and publicizing Chinese culture is a delicate and lengthy task. Every country and every nation has its own proud culture and tradition. Only by promoting and publicizing Chinese culture on the premise of respecting the culture and tradition of the host country and showing the Confucian idea of "harmony and difference" and the broad-mindedness of "accepting all rivers from all parts of the world" can Chinese culture be accepted by the people. One of the essence of Confucian culture is modesty. Confucius Institutes should also promote Chinese culture in the same spirit, and promote Chinese culture in a gentle and modest way, in order to achieve the effect of subtle influence. Under the guidance of such thoughts, the Confucius Institute often organizes activities that Ukrainian people love to promote and publicize Chinese culture. For example, calligraphy, Tai Chi, and Tai Chi sword training courses are offered all year round, celebrate traditional Chinese festivals such as Spring Festival, Lantern Festival, Mid-Autumn Festival, etc. in a warm and friendly atmosphere (Li, & Ye, 2010).

In 2013 the Confucius Institute at Taras Shevchenko National University of Luhansk was awarded the title of "Advanced Confucius Institute" in the world. In 2010, with the support of Confucius Institute, Taras Shevchenko National University of Luhansk established the first Ukrainian Studies Centre in Chinese universities. The Research Centre shares resources with the Confucius Institute and promotes cooperation between China and Ukraine in political, economic and other fields through human resources training and educational and cultural exchanges, which provides an important carrier for the interaction between the Ukraine and Chinese people and cultures (Li, & Ye, 2010).

At the same time, cooperation in the field of education and culture is also reaping new fruits. According to statistics, 67 Ukrainian universities have signed cooperation agreements with more than 200 universities, institutes, colleges and enterprises in China (Embassy of Ukraine in China, 2021). For example, in 2012 the number was 59 universities, by 2013 it increased to 131 (Ministry of Education, China, 2024). Within the framework of these agreements, academic and scientific exchanges take place, joint academic and scientific forums and conferences are organized, educational and scientific materials are prepared and published, etc. In order to reduce resistance and facilitate the synchronization of educational plans for training experts, the two countries have specially approved the granting of dual diplomas. Over the past 30 years since the establishment of diplomatic relations between China and Ukraine, the relationships between Ukraine and China has become increasingly close, and the number of Chinese students studying in Ukraine has increased day by day. Their studies in music, painting and other art fields have injected new vitality into the development of Chinese art. On the other hand, the Confucius Institutes in China are constantly recruiting a large number of Ukrainian students, who show great interest in Chinese culture (Huang, 2020).

The Ukrainian magazine "Nash Kyiv" (2008) conducted an interview in the Ukrainian capital, Kyiv, in the survey found that many Ukrainians are concerned about the Chinese culture, but also the emergence of the Chinese cheongsam dress fever, a lot of Ukrainian young people have begun to tattoo the Chinese characters, the people

of the Chinese culture is more and more interested in Chinese culture, which all shows that Ukraine is setting off a wave of Chinese culture fever. Kyiv National Linguistic University and the Chinese Department of Taras Shevchenko National University of Kyiv have trained batch after batch of outstanding students. They also serve as bridges for the communication of Ukrainian and Chinese cultures and have contributed to the long-term development of the two countries (Fan, 2014). In general, the exchange and cooperation of education between Ukrainian and Chinese universities is a positive exploration to promote the new mode of international exchange and cooperation between the two countries, which will add new positive energy to the development of cooperation and exchange between the two countries. It also broadens the academic exchanges between Ukrainian and Chinese universities, and lays a good condition for the development of education in both countries. For several consecutive years, the exchange of students between Ukraine and China has maintained a trend of steady development. In 2019, more than 3,000 Ukrainian students went to study in China, and more than 3,500 Chinese students received higher education in Ukraine. Cooperation between the two countries on research centres of Ukrainian and Chinese languages and cultures has also been actively developed (Ministry of Education, China, 2024).

In recent years, favourable political and external environments have made economic, cultural and educational exchanges between China and Ukraine more and more frequent, and the scope and level of cooperation between the two countries have gradually formed a good interactive and cooperative situation, "from active to proactive" and "from spontaneous to conscious". Along with China's growing position in the global economy, China will continue to deepen cooperation with Ukrainian universities and companies. The deepening of China-Ukrainian exchanges has had a growing impact on social aspects, economic and trade, medical care, science and technology, cultural dissemination and exchange, and education. The policy supports the common benefit of both peoples and plays a constructive role in the continuing development of relations between the two countries. Economic and trade cooperation has broadened the platform for cooperation and development between the two countries, boosting economic advance and increasing domestic demand and imports

and exports. The impact of education and culture is multifaceted and is an export and introduction of cultural and educational endeavours.

The activities at the level of seminars and exchanges between Ukraine and China are becoming more and more frequent and are expanding in depth and scope. As the comprehensive strategic partnership between Ukraine and China continues to warm up and One Belt, One Road is effectively dovetailed, the exchanges and cooperation activities between Ukraine and China have further deepened the humanistic exchanges and people-to-people contacts between the two countries, and have continuously optimized the public opinion environment and social basis for the dovetailing and cooperation.

This study has made a preliminary analysis and introduction to the economy, culture and education of China and Ukraine, hoping to attract more readers to introduce and analyse the education of China and Ukraine from several perspectives, and to provide rich information reference for better exchanges between the two countries of China and Ukraine. It is believed that in the near future, more Chinese and Ukrainian students will study in each other's countries, and more people will be engaged in the exchange and cooperation work between Ukraine and China.

2.2. Legal basis of cooperation and academic exchanges development

Universities are educational organizations in essence, and educational cooperation and exchanges among international schools are the forefront of promoting the internationalization of education. Accepting foreign students to study in the school is an important way to carry out international educational cooperation and exchanges between the two countries with the sustained development of the world economy, the continuous progress of science and technology, and the intensification of the knowledge-based economy, the network era and the development of global integration. The era of internationalization of higher education has become a trend as bilateral and multilateral exchanges and cooperation between universities across borders,

nationalities and cultures are becoming more and more frequent around the world. In order to cope with the development of higher education in the world, countries are paying more and more attention to the strengthening of inter-university educational cooperation and academic exchanges between teachers and students, proactive integration into the tide of internationalization (Wu, 2015).

At the same time, while continuously strengthening its own construction, it must strengthen exchanges and cooperation with foreign high-level universities to break through the bottleneck of development, through the implementation of the international development strategy, and realize the leapfrog development of education and teaching. The development of various cooperation and agreements between the two parties is naturally inseparable from the relevant policy foundation and legal provisions. With the deepening of international educational cooperation between Ukrainian and Chinese universities, in the process of academic practice, under the conditions of laws and regulations, cooperation between Chinese and Ukrainian universities has gradually explored a sustainable development path of cross-cultural cooperation and exchange in higher education that is suitable for the current educational context, and has achieved certain stage-by-stage fruitful results. Continuous strengthening of international educational cooperation and academic exchanges, the establishing of its own schooling strength, to promote the overall development of the school's various undertakings, for the two countries to better step into the internationalization of the track to lay a solid foundation (Communist Party of China, 2024).

Signing of "The Treaty of Friendship and Cooperation between the People's Republic of China and Ukraine". Ukraine has a long history of friendly relations with China. From December 3 to 6, 2013, at the invitation of President Xi Jinping of the People's Republic of China, then President of Ukraine Viktor Yanukovych paid a state visit to the People's Republic of China. During his visit to China, the two sides approved the "China-Ukraine Strategic Partnership Development Plan (2014-2018)" (The State Council. The Peoples Republic of China, 2020), signed the "People's Republic of China and Ukraine Friendship and Cooperation Treaty", "The People's

Republic of China and Ukraine on Further Deepening Strategic Joint Statement on Partnership" (The State Council. The Peoples Republic of China, 2020).

On February 27, 2015, the Thirteenth Meeting of the Standing Committee of the Twelfth National People's Congress decided: "To ratify the Treaty of Friendship and Cooperation between the People's Republic of China and Ukraine, signed by President Xi Jinping on behalf of the People's Republic of China on December 5, 2013 in Beijing (The State Council. The Peoples Republic of China, 2020).

The signing of "The Treaty of Friendship and Cooperation between the People's Republic of China and Ukraine" (The State Council. The Peoples Republic of China, 2020) is of great significance, marking a higher level of development of China-Ukrainian relations. On the basis of summarizing historical experience, The Treaty outlines the main principles and results of China-Ukrainian relations and puts into legal form the peaceful idea of friendship between the two countries and peoples for generations to come. The two sides are determined to take The Treaty as the legal basis for friendship and cooperation between the two countries, to abide by the principles set out in all documents, signed by China and Ukraine since the establishment of diplomatic relations in 1992, and to promote the continuous development of the China-Ukraine strategic partnership for the benefit of the peoples of the two countries (The State Council. The Peoples Republic of China, 2020).

"The Treaty of Friendship and Cooperation between the People's Republic of China and Ukraine" was signed in 2013 and ratified in 2015, has a total of 21 articles (Communist Party of China, 2024) (see Appendix A).

The People's Republic of China and Ukraine (hereinafter referred to as the Contracting Parties), adhering to the historical tradition of friendship between the Chinese and Ukrainian peoples; believing that the further consolidation and comprehensive development of the longstanding and stable relations of friendship and cooperation between the two countries is in the fundamental interests of the two countries and peoples and is conducive to the maintenance of peace, security and stability of the world; based on the determination to pass on the Sino-Ukrainian friendship from generation to generation; reaffirming the obligations assumed in

accordance with the Charter of the United Nations and other international treaties to which both parties are parties; confirming their adherence to the principles established in the political documents signed by them since the establishment of diplomatic relations in 1992; and committing themselves to further deepening the China-Ukraine strategic partnership Reaffirming their obligations under the Charter of the United Nations and other international treaties to which they are parties; confirming their adherence to the principles established in the political documents signed by the two countries since the establishment of diplomatic relations in 1992; and committing themselves to the further deepening of the Sino-Ukrainian strategic partnership, the two sides reached the following agreements (Communist Party of China, 2024).

The present Treaty shall be in force for a period of 25 years. The Treaty defines in detail the legal basis and norms of Ukraine and China in various spheres under conditions of friendship and cooperation. In particular, article 10: The Parties shall, on the basis of equality and mutual benefit, expand and deepen cooperation in trade, economy, agriculture, mining, energy, transportation, infrastructure, aerospace, finance, investment, science and technology, communications and other areas of interest to the Parties. The Parties shall cooperate within the framework of the international financial system, economic organizations and forums. The Parties shall ensure the protection of intellectual property rights, including patents, trademarks, copyrights and related rights, in accordance with their national laws and international treaties to which they are parties. Article 11: The Contracting Parties actively encourage coordination and cooperation in the fields of culture, education, science, tourism, health care, information, social security, sports, environmental protection and other areas of mutual interest. The development goals in economic and educational cooperation and exchanges were emphasized, laying down the legal basis and norms for the promotion of smooth cooperation between the two countries in various endeavours (Communist Party of China, 2024).

In general, with the policy support of the Ukrainian and Chinese governments, the development of educational cooperation between Ukraine and China has reached a new level and has a clearer development plan. The increasingly close exchanges and

learning in the arts, aviation, manufacturing and other fields, which not only drives economic development between the two countries, but also leads to the settlement of a number of enterprises, foreign-funded enterprises, engineering projects to promote and implement. It also better connects cultural dissemination and exchange between the two countries, and has a positive impact on promoting diversity in the development of cultural exchange. Educational exchanges and cooperation are the key to promoting this series of developments, and have played a particularly important role in them.

Conditions for mutual recognition of school graduates' diplomas between China and Ukraine. China is a country with a large population and a large demand for talent. According to statistics, the number of Chinese students taking the college entrance examination has already exceeded 10 million in 2019 alone, and this number will only rise year by year, with the number of Chinese candidates increasing (Ministry of Education Portal of the People's Republic of China, 2023). Facing the huge number of candidates, the pressure and competition of Chinese students are increasing day by day. Facing the huge pressure of academic examinations at home, many people choose to study abroad. Ukraine, as an important partner of China in trade cooperation and cultural exchanges, has traditional advantages in aerospace, chemistry and medicine, with strong research strength and foundation in welding, metallurgy, construction, petroleum exploration, material science, and mechanical automation. Outstanding achievements in the field of painting, music, dance and other arts, and most importantly, as a country of study destination, the financial cost of studying in Ukraine is relatively low compared to consumption in other European countries. With the natural advantages of studying in Ukraine, this country offers many opportunities for Chinese students, attracting a large number of Chinese students to choose to study in Ukraine. This eases the competitive pressure of the college entrance examination within China on the one hand, and on the other hand, it also serves as a bridge for the dissemination of Chinese excellent traditional culture overseas. establishment of friendly relations between China and Ukraine in 1992, Chinese people have been traveling to Ukraine to work, live and study there (Ministry of Education, China, 2023).

In order to promote further cooperation in the field of education as the number of students from Ukraine and China increases year by year, the two parties have determined the principle of mutual recognition of academic qualifications and degree certificates, and followed the respective internal standards of both parties (Ministry of Education Portal of the People's Republic of China, 2023). The legal provisions on the mutual authentication of school diplomas between the two countries will also be promulgated and implemented soon.

Conditions for the recognition in China of diplomas of graduates of Ukrainian schools are as following. Pursuant to the Agreement between the Government of the People's Republic of China and the Government of Ukraine on the Mutual Recognition of Academic Qualifications and Degree Certificates, signed in Beijing on 11 December 1998, The People's Republic of China recognizes academic certificates issued by Ukrainian institutions of higher education and diplomas issued by the Supreme Degree Council of Ukraine (The State Council. The Peoples Republic of China, 2020). Among them, it has been verified with the General Department of the Foreign Affairs Division of the Ministry of National Education that China recognizes the diplomas of graduates of Ukrainian schools under the following conditions: First, the Ukrainian school must be a state university. Second, Chinese students must have a high school diploma; The third is to obtain the Ukrainian Preparatory Course Completion Certificate; The fourth is to complete the prescribed courses within the prescribed academic year of Ukrainian University; Fifth, they must be registered with the Educational Service of the Chinese Embassy in Ukraine and report annually the academic year's transcripts (Ministry of education, China, 2024a).

The Chinese side recognizes the full general secondary education diploma issued in Ukraine. Holders of this certificate are eligible for admission to institutions of higher learning in the People's Republic of China. The Chinese side recognizes the certificate for professional and technical workers issued in Ukraine. Holders of this certificate are eligible to engage in professional activity in the People's Republic of China or to enrol in higher educational establishments in the People's Republic of China in accordance with the specialization and level of expertise indicated on the certificate. The Chinese

side recognizes certificates of higher education issued by Ukrainian institutions of higher education, and holders of such certificates are eligible to continue their studies (including in postgraduate schools) and to take up employment in China in accordance with the specialization and level of study indicated on the certificate. The Chinese side recognizes certificates for the award of degrees issued by the Supreme Degree Council of Ukraine (The State Council. The Peoples Republic of China, 2020).

There are also conditions for the recognition in Ukraine of diplomas of graduates of Chinese schools. First, the Ukrainian side recognizes the full-time general secondary school diploma issued by the People's Republic of China. Holders of this certificate are eligible for admission to higher educational institutions in Ukraine. Secondly, the Ukrainian side recognizes the certificate of secondary vocational and technical education issued in the People's Republic of China. Holders of this certificate are eligible for employment in Ukraine in the specialties and at the professional level indicated on the certificate and for admission to higher educational establishments in Ukraine. Thirdly, the Ukrainian side recognizes the certificates of higher education issued by institutions of higher education and scientific research in the People's Republic of China. Holders of such certificates are eligible for further studies (including studies at graduate schools) and employment in Ukraine in the specialization and level indicated on the certificate. Fourthly, the Ukrainian side recognizes the degree certificates issued by the degree-granting units approved by the Academic Degrees Committee of the State Council of the People's Republic of China (Ministry of education, China, 2024a).

The Parties shall provide each other with the regulatory documents for the processing and issuance of academic and degree certificates, as well as models and descriptions of the said certificates, and, if necessary, the relevant official statements. Disputes over the implementation and interpretation of this Agreement will be resolved through negotiation and consultation between the parties (Ministry of education, China, 2024a).

The promulgation and implementation of the Agreement between the Government of the People's Republic of China and the Government of Ukraine on the

Mutual Recognition of Academic Qualifications and Degree Certificates has laid a solid legal foundation for educational exchanges between the two countries and for exchanges and interactions among international students. The internationalization of education between Ukrainian and Chinese schools has been further promoted. The active development and cooperation between Ukraine and China in the field of education also plays an active and important role in promoting the healthy development of relations between the two countries. In particular, the establishment of the Cooperation Committee between the two sides has further promoted the development of relations between the two countries to a new level (Ministry of education, China, 2024a).

The friendly cooperation and development between Ukraine and China in all aspects reflects the international attitude and position of the two countries to help each other and develop together, to reach consensus and to promote a mutually beneficial and win-win situation. The "Joint Statement between the People's Republic of China and Ukraine on the Establishment and Development of Strategic Partnership" signed in Kyiv in 2011 is a sign of the two countries' mutual desire to improve bilateral relations and the profound changes in the regional and international situation. The relationship has entered a new stage of comprehensive development. The two countries decided to establish and develop a strategic partnership. The statement sets out the legal provisions for the continuation and strengthening of cooperation between Ukraine and China in the form of a long-term strategic partnership in the political, economic, policy, national sovereignty and cooperation areas. This is clearly stated in articles 1, 2, 4, 11, 12 and 13 of the declaration (Ministry of education, China, 2024a) (see Appendix B).

Proposing the One Belt, One Road Initiative. In September and October 2013, during his visits to Central and Southeast Asian countries, Chinese President Xi Jinping put forward the major initiatives of building the "Silk Road Economic Belt" and the "21st Century Maritime Silk Road". This has come to be known simply as the One Belt, One Road initiative. On March 28, 2015, authorized by the State Council, the National Development and Reform Commission, the Ministry of Foreign Affairs, and the Ministry of Commerce jointly issued the Vision and Actions for Promoting the

Construction of the Silk Road Economic Belt and the 21st Century Maritime Silk Road (National Development and Reform Commission, 2015). The "Belt and Road" construction is an initiative that responds to the trend of multipolarization, economic globalization, cultural diversification and social informatization in the world, and "is aimed at promoting the orderly and free flow of economic factors, the efficient allocation of resources and the in-depth integration of markets", facilitating the coordination of economic policies among the countries along the routes, carrying out regional cooperation on a wider scale, at a higher level and at a deeper depth, and jointly building a regional economic cooperation architecture that is open, inclusive, balanced and universally beneficial. Specifically, "under the guidance of the principle of "co-consultation, co-construction and sharing", in the countries along the "Belt and Road", we will promote policy communication, facility connectivity, trade facilitation, financial integration and people-to-people exchanges, and work together to build a community of interest, responsibility and destiny based on mutual political trust, economic integration and cultural tolerance" (Ministry of Commerce of the People's Republic of China, 2024).

The "Belt and Road" Initiative involves a total of 65 countries and regions, including Mongolia in East Asia, 10 countries in ASEAN, 18 countries in West Asia, 8 countries in South Asia, 5 countries in Central Asia, and 7 countries in the former Commonwealth of Independent States (Russia, Ukraine, Belarus, Georgia, Azerbaijan, Armenia, and Moldova) and 16 Central and Eastern European countries (Belt and Road Portal, 2021). Ukraine is an important node of the "Belt and Road" Initiative and one of the first countries to respond to the "Belt and Road" Initiative. In 2015-2016, China's Ministry of Commerce and Ukraine's Ministry of Economy and Trade signed a protocol on strengthening cooperation in building the Silk Road Economic Belt, sorted out and studied the action plan for implementing the initiative to build the Silk Road Economic Belt, and set up an investment working group (Ministry of Commerce of the People's Republic of China, 2024).

In December 2020 Chinese Vice Premier Liu He and Ukrainian Deputy Prime Minister Stefanishina co-chaired by video the fourth meeting of the Sino-Ukrainian Intergovernmental Cooperation Committee and signed the "Cooperation Plan between the Government of the People's Republic of China and the Government of Ukraine on the Co-construction of the Economic Belt of the Silk Road and the Maritime Silk Road of the 21st Century", which stipulates the tasks of cooperation in the areas of trade, transportation infrastructure, industrial investment, agriculture, energy, finance, science and technology and humanities (Zhao, 2021, p. 105).

In recent years, bilateral trade and economic cooperation between China and Ukraine has accelerated significantly. In terms of trade volume, China-Ukraine trade volume now ranks No. 3 among China's trade volume with 15 countries in the post-Soviet region. By country, China has been Ukraine's top trading partner, top export market and top source of imports for two consecutive years. In 2020, Ukraine exported 7.113 billion U.S. dollars to China, an increase of 98% year-on-year, and China accounted for 15% of Ukraine's foreign trade exports. 2021 bilateral trade continued to maintain a high growth trend, bilateral trade volume reached 7.24 billion U.S. dollars in January-May, an increase of 44.83% year-on-year. Ukraine has become China's largest source of imports of corn, sunflower oil, sunflower meal and other agricultural products (Zhao, 2021).

The flow of China's direct investment in Ukraine has shown an overall growth trend. In 2019, China's direct investment flow to Ukraine was nearly 60 million US dollars, accounting for 2.37% of the total foreign direct investment flow absorbed by Ukraine, a record high. China's investment in Ukraine is mainly distributed in information technology, energy, agriculture, infrastructure and other fields. In recent years, Ukraine's demand for cooperation in the field of engineering contracting, infrastructure projects and other areas is strong, Chinese-funded enterprises in Ukraine to contract new contracts for two consecutive years exceeded 2 billion U.S. dollars (Zhao, 2021).

2021 June 30, the two sides signed the "Government of the People's Republic of China and the Ukrainian Government on the deepening of cooperation in the field of infrastructure construction agreement". Chinese companies have performed well in Ukraine. China Harbor Engineering Co. Ltd, a subsidiary of China Communications

Construction, won the bid for the dredging of the southern port of Ukraine and completed the project. PowerChina has signed 8 contracts in Ukraine, with a total contract value of about 2.175 billion US dollars, involving hydropower, new energy, transportation infrastructure construction, road repair and other industries, and many of these projects have been successfully completed. COFCO International Ukraine has become the second largest grain and vegetable oil exporter in Ukraine (Zhao, 2021).

These fruitful results of cooperation could not have been achieved without the support of the policies between the two countries, the regulation of the legal basis, and the concept of win-win cooperation in which the two peoples live together in friendship. This is also the embodiment of the strategic significance of the "Belt and Road" policy initiative, actively developing economic partnerships with countries along the route, and jointly building a community of interests, destiny, and responsibility with political mutual trust, economic integration, and cultural tolerance. On the basis of optimizing and innovating international cooperation and global governance mechanisms, it will make important contributions to promoting the development of Ukraine and China and the peaceful development of mankind.

Since becoming an independent and sovereign State, Ukraine has been committed to international educational exchanges and cooperation and has been constantly broadening its thinking on international educational cooperation. In 2017, Ukraine enacted the Law on Education, which is the basic law of Ukraine in the field of education, regulating international educational cooperation among various institutions in the field of education, sources and handling of funds, taxation, participation of personnel of institutions in international education, as well as providing support for the development of all kinds of international educational exchanges and cooperation from the point of view of the state (Zhao, 2022). On the one hand, the Education Law reflects the importance the State attaches to the development of international educational exchanges and cooperation, and on the other hand, it lays the legal foundation for the development of various types of international educational exchanges and cooperation. In accordance with the provisions of the Education Act, which explicitly regulates the diversification of educational cooperation paths, this is

reflected in the implementation and cooperation with Chinese universities. It is characterized by the establishment of a platform for cooperation and exchange between the two countries, effective improvement of the quality of training of educational specialists, and emphasis on the export of educational resources in international educational cooperation. This has led to a number of cooperative achievements between Ukrainian and Chinese universities in the course of exchanges.

Ukraine is an important country along the "Belt and Road" route, and in recent years has had multifaceted cooperation with China in various fields, and China-Ukraine relations have been upgraded to a comprehensive partnership. In 2015, China and Ukraine signed a cooperation agreement on the "Belt and Road" initiative, laying a solid foundation for educational cooperation between the two countries (Central Government Portal, 2020).

In terms of academic education exchanges, Ukraine has a large number of colleges and universities, rich in educational resources, and in recent years has become one of the most important destinations for Chinese students to study abroad. In 1998, the governments of the two countries signed an agreement on mutual recognition of academic qualifications and degrees, which provides an important legal guarantee for educational cooperation between the two sides, especially for the exchange of foreign students. The rapid development of educational cooperation between the two countries has been facilitated by the annual training of a fixed number of students under the auspices of the Governments of the two countries. Universities of the two countries cooperate in various areas, including academic and scientific exchanges; organize academic and scientific forums as well as international conferences; prepare the publication of educational and scientific materials; and jointly supervise PhD and doctoral theses (Zhao, 2022).

In 2013, 49 Ukrainian undergraduates and postgraduates were awarded state scholarships to study in China's top universities, and 100 Chinese nationals studied in Ukraine's top universities. The General Association of Ukrainian Chinese Students, which was established in the Ukrainian capital, Kyiv in 2018, aims to unite and serve all Chinese students in Ukraine, and to promote exchanges between China and Ukraine

in the field of culture and education (Zhao, 2022). In 2019 Ukraine signed an agreement with China to provide 60 scholarships for Ukrainian students to study at Chinese universities in the 2019-2020 academic year (Zhao, 2022).

In terms of scientific and technological cooperation and development, Scientific and technical cooperation between Ukraine and China is typically characterized by an early start, many achievements and diversified forms of cooperation. The signing of the intergovernmental agreement on scientific and technological cooperation between the two sides in 1992 and the establishment of the Committee on Scientific and Technological Cooperation in 1997 have guaranteed the development of scientific and technological cooperation between the two countries in terms of law and mechanism. The two sides hold regular meetings to exchange information on the implementation of cooperation projects and agree on plans for the next phase of cooperation projects, and have implemented nearly 100 intergovernmental cooperation projects. The two sides cooperated to set up China-Ukraine Jinan Science and Technology Park and Harbin Barton Welding Technology Development Center, which became a demonstration base for joint research and development and industrialization of scientific and technological achievements of the two countries. The two sides have also jointly organized "Ukrainian Science and Technology Week", "Ukrainian Science and Technology Day", "High-tech Exhibition" and other exhibitions in Jinan, Changchun and other places in China, which have achieved good results in matching the two countries' enterprises with each other and signing hundreds of agreements on equipment and technology cooperation. They have signed hundreds of agreements on equipment and technology cooperation and achieved good results (Zhang, 2011).

In terms of artistic and cultural exchanges, culture is an important element of national exchanges and a major channel for civil exchanges. Since the establishment of diplomatic relations, the governments of China and Ukraine have attached great importance to cultural exchanges between the two countries. In 1992, the two countries signed the Intergovernmental Agreement between Ukraine and China on Cultural Cooperation and Exchanges, which provided an important orientation for cultural exchanges between China and Ukraine. Since then, the two sides have signed a number

of cultural cooperation plans and carried out rich and colourful cultural exchange activities. For example, in December 2013, the Kyiv Ballet with a line of actors for the first time in China tour "Swan Lake". In April 2017, the opening ceremony of the One Belt, One Road China-Ukraine Cultural Exchange Week was held in the Ukrainian Palace in Kyiv. Artistic and cultural exchanges have deepened mutual understanding between the two peoples and laid a broad social foundation for the development of art and culture between the two countries (Wang, 2022).

Most of the comprehensive universities in Ukraine have majors related to the arts, and there are more than 20 colleges specializing in purely artistic subjects, covering music, dance, painting, design and other aspects of the arts, and numerous academic symposiums, exhibitions and so on are held every year. Encourage cultural workers to integrate into the world's cultural and artistic processes and promote international cultural exchanges. The implementation of these policies has attracted a large number of Chinese students specializing in the arts. In addition, Ukraine has established a number of international cultural exchange centres for the study of the country's outstanding traditional culture in order to better integrate Ukraine into world culture (Ren, 2022). This reflects the importance it attaches to work in the field of art and culture, and thus promotes exchanges and cooperation between Ukrainian and Chinese students in the field of art.

Language is an important basis for effective international cooperation (Luo, Li, & Li, 2019), and the steady development of Chinese language education in Ukraine helps to promote deeper cooperation between China and Ukraine. The establishment of friendly relations between China and Ukraine has led to the rise of Chinese language education in Ukraine. In 2019, China has become Ukraine's largest trading partner country. With more and more frequent economic, political, cultural and military exchanges between China and Ukraine, the development of Chinese language education in Ukraine is an important opportunity (Huang, 2014; Wang, 2022). As a platform for the world to learn about China, the Confucius Institute is a window for language and cultural exchanges between China and foreign countries. The establishment of Confucius Institutes in Ukraine provides teaching resources for local

Chinese language teaching, and increases the enthusiasm of Ukrainian people to learn Chinese language and perceive Chinese culture. It has also attracted a large number of Chinese people to Ukraine for study, employment and investment.

Before the establishment of the first Confucius Institute in Ukraine in 2007, there were nine universities offering Chinese language programs, mainly in the capital city and some large cities in the east (Ren, 2008). With the successive opening of Confucius Institutes in Ukraine, the variety of Chinese education classes in Ukraine has increased, and a number of universities and colleges have opened Chinese elective courses or interest classes, such as the State University of Sumy, Poltava University of Economics and Trade, and so on. In addition, the Confucius Institutes have widely carried out colourful Chinese cultural experience activities (Wang, 2022).

With the upgrading of Sino-Ukrainian cooperative relations, and in order to promote the construction of One Belt, One Road, the Confucius Institute in Ukraine has implemented a teaching model that combines Chinese language education with vocational skills (Wang, 2022). For example, the Confucius Institute at the Kyiv National Linguistic University offers courses in aviation Chinese, medical Chinese, and lectures on intercultural communication (bilingual) for foreign and Chinese managers of enterprises. With the favourable development of Sino-Ukrainian relations, there is a growing demand for Chinese language courses in the western part of Ukraine. Currently, Ivan Franko National University of Lviv and Vasyl Stefanyk Prykarpathian National University have become two important Chinese language teaching points in the western region. At the same time, the Confucius Institute assisted the teaching sites to gradually carry out the standardization of syllabus and teaching plans, laying a solid foundation for the future development of Chinese language education in Ukraine. In order to meet the strong demand of Ukrainians to learn Chinese, the number of hours of elective and interest classes in Chinese language learning is constantly increasing. With the promotion of the One Belt, One Road project, the scale of cultural exchanges between China and Ukraine is constantly expanding (Wang, 2022). Taking the example of the Confucius Institute of the K. D. Ushynskyi South Ukrainian National Pedagogical University, in the year 2017-2018, 65 large and medium-sized events and

112 small events were held, and the number of participants has reached 32,000 people (Wang, 2022).

Ukraine and the Chinese government were also actively involved in cooperation in primary and secondary education in 2016, with China providing 23,000 new computers to Ukrainian primary and secondary schools free of charge for assistance (Zhao, 2022). In June 2017, then Chinese Minister of Education Chen Baosheng led a delegation to Ukraine to attend a forum of Chinese and Ukrainian university rectors. The Chinese and Ukrainian sides identified priority directions and major activities to jointly promote the development of educational cooperation between the two countries and agreed to further deepen cooperation in such areas as strengthening academic exchanges, inter-school exchanges, developing vocational education and promoting the teaching of the Chinese and Ukrainian languages (Zhao, 2022). After the meeting, more than 20 Chinese and Ukrainian universities signed a framework agreement on inter-university cooperation. The Chinese side said that they would work together to provide intellectual support for the joint construction of the One Belt, One Road, and through joint research and development, joint construction, sharing and other measures to help China-Ukraine educational cooperation in the new situation in a comprehensive manner, and to promote cooperation between the two countries' universities to a new level (Chang, 2019; Zhao, 2022).

The international educational cooperation between Ukraine and China has a solid legal foundation, and the path is diversified and distinctive, and its valuable experience is worthy of the two country's reflection, which can not only lay the foundation for the deepening of China's educational cooperation with Ukraine, but also provide certain references for China's international educational cooperation. China and Ukraine are traditional partners, and since the establishment of diplomatic relations in 1992, the governments of the two countries have been committed to the planning and developing educational cooperation. At present, Ukraine is an important country in the "Belt and Road" initiative, and the relationship between China and Ukraine has been upgraded to a comprehensive partnership, with educational exchanges occupying an important position in the cooperation between the two countries. Along with the

gradual improvement of the mechanism of meetings between high-level leaders of the two countries in the field of education, the cooperation between the two countries in the field of education will certainly enter a new stage of development.

Although Ukraine and China are located in Asia and Europe, the distance between the two continents, but the people of the two countries have always maintained a deep traditional friendship and friendly exchanges, the two governments attach great importance to the development of bilateral relations, and regard each other as a sincere friend and reliable partner. Since the establishment of diplomatic relations, the friendly and cooperative relations between China and Ukraine have been developing continuously, the leaders of the two countries have maintained close contacts, and the political mutual trust between the two countries has been deepening. More than 100 bilateral cooperation documents have been signed in the fields of politics, economy and trade, science and technology, education, culture, sports, health, post and telecommunications, environmental protection, etc., and fruitful results have been achieved in all fields of cooperation (Zhang, 2011). The increasing level of relations between Ukraine and China is in the common interest of the two countries and peoples, and the development and deepening of cooperation and exchanges between the two countries is the common will of the governments and peoples of the two countries. With the joint efforts of the people of the two countries, educational exchanges and cooperation between the two countries will continue to enter a new stage of development and reach more consensus on cooperation.

Conclusion for chapter 2

In the second chapter "Peculiarities of cooperation and academic exchanges development in the discourse of Ukrainian-Chinese experience" we clarify the social, economic, cultural aspects of cooperation and academic exchanges between Ukrainian and Chinese universities as well as substantiate the legal basis of cooperation and academic exchanges development.

A wide range of social, economic and cultural cooperation and academic exchanges have taken place between Ukrainian and Chinese universities. This cooperation not only promotes development in the field of education in the two countries, but also fosters mutual understanding and the long-term development of friendship between the peoples of both countries.

On the social front, cooperation between Ukrainian and Chinese universities has deepened people-to-people ties between the two countries. Exchange programs between students and faculty on both sides have increased opportunities for mutual understanding and respect. Student exchange programs allow Ukrainian and Chinese students to visit each other's universities and experience different educational and cultural environments. Such exchanges not only broaden their horizons, but also provide them with valuable experience for their future professional development.

On the economic front, cooperation between Ukrainian and Chinese universities has strengthened economic ties between the two countries. The two sides have carried out joint research projects involving cooperation in various fields, including engineering, science and medicine. These research projects not only promote scientific and technological progress, but also provide new opportunities for industrial development in Ukraine and China. In addition, the two sides have cooperated in organizing business seminars and innovation competitions, which have promoted exchanges and cooperation between entrepreneurs of the two countries and laid a solid foundation for economic cooperation.

In the cultural sphere, cooperation between Ukrainian and Chinese universities promotes cultural exchanges between the two countries. The two sides have organized various cultural events, including art exhibitions, concerts and theatrical performances. These events show the rich and diverse cultural heritage of the two countries and promote cultural mingling and understanding. In addition, Chinese and Ukrainian scholars have cooperated in cultural research, exploring in depth the commonalities and differences between the two cultures. This cultural cooperation has helped deepen the understanding of the Ukrainian and Chinese people of each other and enhanced the friendship and closeness between the two countries. With the passage of time, it is

believed that this cooperation will continue to deepen, bringing more opportunities and results to Ukraine and China.

Cooperation and academic exchanges between Ukraine and China are based on a number of legal bases designed to clarify the rights and obligations of the parties and to provide legal guarantees for cooperation between them. A framework agreement on educational cooperation signed by the education authorities of Ukraine and China guides and supports cooperation between universities of the two countries. Such a framework agreement establishes the principles and objectives of cooperation between the two sides and promotes exchanges and cooperation in the field of education. The framework agreements on educational cooperation cover cooperation in academic exchanges, teacher training, teaching cooperation, curriculum development, student exchanges, joint research projects, sharing of educational resources, etc., which enhance the level of the educational undertakings of the two countries and inject vitality into the development of internationalization of education.

A clear legal basis has been laid down for the scope, modalities and procedures of cooperation, laying the foundation for the smooth implementation of educational cooperation and exchange programs between the two countries. One of the most important prerequisites for cross-border and inter-ethnic exchanges and cooperation is mutual recognition and respect for the cultures of the two countries. Educational cooperation and academic exchanges between Ukraine and China are constantly improving and innovating on the premise of complying with the relevant laws and regulations of the respective countries, and also provide a reference for the development of laws and regulations on educational cooperation between other countries.

The materials of this chapter have been highlighted in the following publications: Wang, 2023a, Wang, 2023e.

CHAPTER 3

THE IMPLEMENTATION OF COOPERATION AND ACADEMIC EXCHANGES BETWEEN UKRAINIAN AND CHINESE UNIVERSITIES

The third chapter "The implementation of cooperation and academic exchanges between Ukrainian and Chinese universities" presents the peculiarities of the organization of educational exchange programs for university teachers and students, distinguishes and characterises the scope and main features of scientific cooperation and exchanges between Ukrainian and Chinese universities as well as ways and suggestions to improve cooperation and academic exchanges between two countries.

3.1. The organization of educational exchange programs for university teachers and students

International school education exchange and cooperation program is a broad concept, refers to cross-border, cross-cultural higher education exchanges and cooperation. It covers teacher and student exchanges, degree equivalence, scholars' visits, cooperation in education development, cooperation in research, international academic conferences organization, supply of international complementarity of educational resources, assistance and so on (Wu, 2010, p. 50). Universities are essentially educational organizations, and international school exchange and cooperation programs are at the forefront of promoting the internationalization of education. Inter-country exchange and cooperation in higher education is an important part of the internationalization of higher education (Clark, 1983). Extensive international education exchanges and cooperation, increasing international education courses, sending a large number of international students to foreign countries, cultivating international talents who understand both local and foreign cultures, deep, multi-form and all-around internationalized school running, not only greatly enhance

the comprehensive school running strength, but also win a good reputation for the school worldwide (Xiang, 1999). In order to cope with the development of higher education in the world, countries are paying more and more attention to the strengthening of inter-university cooperation and educational exchanges between teachers and students. Active integration into the tide of internationalization, in constantly strengthening their own construction at the same time must strengthen exchanges and cooperation with foreign high-level universities, through the implementation of the international development strategy to break through the bottleneck of development, to achieve advance development of education and teaching. They continuously expand the opening to the outside world, and actively carry out international exchanges and cooperation, in order to enter the internationalization of the track, so as to continuously enhance their own strength, and promote the overall development of the school's various undertakings.

In the current context of internationalization of education, the organization of educational exchange programs between universities and colleges is mostly divided into the following five ways:

1. Accepting foreign students to study at the university. Accepting foreign students is an important way for universities to carry out international educational exchanges. With the continuous development of the world economy and the advancement of science and technology, China's international status has increased significantly. Chinese language is also favoured by more and more people in the world. In order to promote the steady academic development of educational exchange programs, China has made great efforts to improve the external conditions for foreign students to study in China. China now has a favourable environment for attracting and accepting foreign students to study in the country. Universities are also actively developing education for foreign students. The development of education for foreign students is integrated with the overall development goals of the university, and the development plan of the university is formulated, and effective measures are taken. Universities have also attached great importance to publicizing themselves to the outside world, expanding their influence on the world and the reputation of the

university, and seeking student sources. In addition, the university has its own measures and implementation methods to improve the teaching quality of international students, optimize the study and living conditions of international students, and improve the management of international students, so as to attract more international students to come to study and even stay in China for employment.

In the same way, Ukraine's emphasis on educational exchanges is also increasing year by year. With the strong support of relevant policies, more and more Chinese students choose to study in Ukraine to learn cultural and professional knowledge. The Ukrainian government also welcomes Chinese students to come to Ukraine to study and promotes the development of educational exchange programs between the two sides.

- 2. Encouraging teachers to participate in academic conferences or study abroad for professional development. Teachers who attend academic conferences or study abroad can have the opportunity to directly communicate and discuss actual issues with foreign experts and colleagues. They can contact and understand the latest international developments in the discipline and obtain first-hand information. Therefore, academic exchange of teachers between universities, holding academic conferences, and teaching and studying in universities are the main ways to organize educational academic exchange projects. At the universities, they actively encourage their teachers, especially outstanding young and middle-aged teachers, to participate in academic conferences or study abroad for professional development, and provide them with all kinds of facilities and the necessary financial support to go abroad. Teachers who are sent for exchange studies and return to China can use their advanced experience and knowledge to lay a good foundation for cultivating professional talents in this field. An increasing number of foreign teachers and visiting students are injecting new vitality into the educational development of universities and have become one of the ways of educational cooperation among universities in various countries.
- 3. Organizing international academic conferences. Some schools may be limited in the number of teachers who can go abroad to participate in international academic conferences due to the constraints of scientific research funds, visa and other

factors. Therefore, the school itself organizes international academic conferences and invites famous experts and scholars at home and abroad to participate in the conferences, so that more teachers can get the opportunity to communicate and learn with experts and scholars at home and abroad, and more teachers can benefit from them. This is also one of the ways to be respected among the colleges and universities. At the same time, inviting foreign experts and scholars to the university to participate in international academic conferences also provides foreign experts and scholars with the opportunity to know each other directly, to know the country and their own school culture. In this case, foreign experts and scholars can see for themselves the changes in the development of education in the university, and see the strength of the university and its future prospects for development, thus better enhancing the confidence of the two countries in the establishment of colleges and universities and the establishment of strengthening the relationship of long-term exchanges and cooperation.

- 4. Developing joint educational programs with foreign universities. With the acceleration of higher education internationalization, international universities are increasingly active in joint school activities based on the principle of resource and benefit sharing, and a series of initiatives such as the development of scientific research projects in cooperation with foreign universities and scientific research institutes have opened up a new way of exchanges and cooperation among international universities. Students are trained not only for the two countries but also for other countries. The forms of joint education with foreign universities include the joint development of educational programs, joint teaching, joint management, joint awarding of degrees, etc.
- 5. Striving for foreign funding. Seeking financial assistance from abroad for teaching and research is an effective way for universities to make up for the lack of funds. At present, many organizations and institutions around the world have set up various loans or funds to finance education in developing countries. Funding for the running of schools is still in short supply in many schools, higher education institutions are actively creating conditions for obtaining foreign financial assistance in order to strengthen the construction of school infrastructure, improve the conditions for running schools and promote their development.

Nowadays, multiple educational exchange programs have become a trend in contemporary education. The increasing number of international school cooperation programs is also a reflection of education internationalization. The internationalization of education itself includes participation in educational exchanges, the promotion of national languages and cultures, and the enhancement of the international status of national education. Along with the implementation of educational cooperation programs between university teachers and students, cross-border educational exchanges have become the main way to obtain better educational resources and learn foreign unique educational concepts and teaching methods.

The ways in which Ukraine carries out educational exchange and cooperation projects are diverse and manifested primarily in project cooperation with international organizations and educational cooperation with other countries. The partnership between China and Ukraine in carrying out international educational cooperation and exchange projects is growing in the context of participation in projects organized by the state. In terms of international exchanges among the academic staff, there are mainly senior mutual visits and training, intellectual attraction (introduction of foreign intelligence), and exchange activities at the school level. For example, delegation meetings, delegation visits, and headmaster-led delegation visits. In addition, there are academic exchanges among teachers, short-term training abroad, study abroad, participation in and organization of academic conferences, lectures by teachers from abroad, and international exchange activities based on Confucius Institutes abroad. In order to promote the active participation of university teachers in international exchange activities, the school actively applies for central and local overseas programs, as well as short-term cultural experience programs with friendly universities, and carries out language training activities to improve teachers' communication skills. The university also encourages and subsidises outstanding teachers to pursue degrees abroad and sends some of them to well-known universities in China for short-term professional training or seminars, and at the same time actively absorbs outstanding teachers from overseas to enhance the internationalisation level of the teaching force.

In terms of international exchanges among the student body, there are various

forms. Among them there are study visits abroad and further training of exchange students, participation in academic conferences, internships and employment, and education for international students. According to the statistics of students going abroad, exchange study accounts for the overwhelming number of students, followed by degree study and joint student training activities, which provide a platform for students to go abroad for further study. With the help of exchange programs, students learn about and experience local customs and cultural characteristics, learn different ways of teaching and learning, and improve their professional knowledge or social experience.

In 2015, China and Ukraine signed a co-operation agreement on the "Belt and Road" initiative, laying a solid foundation for educational co-operation between the two countries (Ge, & Ho, 2022).

In recent years, Ukraine-China educational co-operation has achieved remarkable results in the field of higher education. Ukraine is an important country along the "Belt and Road" route, and is also the first country to respond to China's "Belt and Road" initiative (Thompson, 2019; Wu, & Guo, 2017).

In response to the "Belt and Road" initiative of the two countries, China-Ukraine exchanges and co-operation in science and technology, culture and education, economy and trade will continue to deepen, and China-Ukraine relations will be upgraded to a comprehensive partnership. This provides the Chinese students studying in Ukraine with diverse learning opportunities, space for development and a platform for employment. Firstly, the cooperation between China and Ukraine on study-abroad education is conducive to promoting the complementarity of higher education between the two countries. Ukraine has traditional strengths in aerospace, chemistry and medicine, as well as strong research strengths and foundations in welding, metallurgy, construction, oil exploration, materials science, and machine automation, and outstanding achievements in the fields of painting, music and other arts. China, as the world's second largest economy, has a strong ability to transform scientific and technological achievements, which is not only conducive to our international students to learn from, but also a kind of complementary advantages (Yue, Yang, Chen,

Wanglee, & Ye, 2022; Huang, & Wu, 2017).

Secondly, under the "Belt and Road" initiative, new progress has been made in education for students in China and Ukraine. Universities of the two countries cooperate in various areas of academic and scientific exchanges. Academic and scientific forums and international conferences are organized, educational and scientific materials are prepared for publication, and PhD and Doctoral theses are jointly supervised. In 2013, 49 Ukrainian students and postgraduates received state scholarships to study at leading Chinese universities, and 100 Chinese nationals studied at leading Ukrainian universities (Zhao, 2022, p. 117). The General Association of Chinese Students in Ukraine was established in 2018 with the aim of uniting and serving all Chinese students in Ukraine and promoting cultural and educational exchanges between China and Ukraine. In the context of mutual recognition of academic qualifications and degree certificates between Ukraine and China, and in the context of the "Belt and Road" development cooperation policy proposed by China in the new era, academic exchanges between Ukrainian and Chinese universities are also growing. Programs of cooperation between universities and colleges, as well as exchanges of personnel, are constantly on the rise.

For several years in a row, the trend of cooperation and exchange of students between Ukraine and China has been developing steadily. In 2019, more than 3,000 Ukrainian students went to study in China and more than 3,500 Chinese students received higher education in Ukraine (Wang, 2021, p. 114). In the same year, China also offered 60 scholarships for Ukrainian students to study at Chinese universities. According to the data, the total number of Ukrainian students coming to China in 2018 was 3,090, ranking 6th in Europe. The number of students coming to China was 1,275, ranking 3rd in Europe. The constantly advancing cooperation programs will also continue to expand the scale of Ukrainian students studying in China (Lv, 2015, p. 130).

The development and cooperation between Ukraine and China in the field of education has also played an active and important role in promoting the healthy development of relations between the two countries. In particular, the establishment of

the Cooperation Council between the two sides has further promoted the development of relations between the two countries to a new level. The Subcommittee on Educational Cooperation of the Commission on Intergovernmental Cooperation between Ukraine and the People's Republic of China is the main body for the implementation of bilateral cooperation in this field. The first meeting of the Subcommittee on Educational Cooperation was held in February 2012 in Sanya, Hainan Province, China. During the meeting, the parties approved the Program of Initiatives for the Development of Educational Cooperation between Ukraine and China for 2012-2014, as well as the Agreement on Educational Cooperation between Ukraine and China, under the terms of which, since the beginning of 2013, the number of scholarships offered by the two countries to each other has tripled from 25 to 100. And this number was expanded from 100 to 120 places in June 2017 at the Second Sub-Committee on Ukrainian-Chinese Intergovernmental Cooperation in Education (Ministry of Education and Science of Ukraine, 2017a).

At present, centres for the study of the Ukrainian language and culture have been established in Chinese higher educational institutions in Beijing, Shanghai, Tianjin, Dalian, Wuhan, Xi'an and Harbin. Aswe have already mentioned, Confucius Institutes have been set up at five Ukrainian universities, including the Taras Shevchenko National University of Kyiv (2016), Kyiv National Linguistic University (2024), V. N. Karazin Kharkiv National University (2024), and K. D. Ushynskyi South Ukrainian National Pedagogical University (2024). A Confucius class has been established at The First Eastern Languages Gymnasium in Kyiv (2024), and a Confucius class in music has been established at The Ukrainian National Tchaikovsky Academy of Music (2024).

In June 2017, then Chinese Minister of Education Chen Baosheng led a delegation to visit Ukraine to attend the Forum of rectors of Ukrainian and Chinese Universities, held at Taras Shevchenko National University of Kyiv in Ukraine (Ministry of Education and Science of Ukraine, 2017b). Heads of 11 Chinese universities from China, including Lanzhou University (2024), Zhejiang University (2024), Anhui University (2023) and Beijing Foreign Studies University (2024), and

25 Ukrainian universities from Ukraine, including Taras Shevchenko National University of Kyiv, Kyiv National Linguistic University, The Ukrainian National Tchaikovsky Academy of Music, and V. N. Karazin Kharkiv National University participated in the forum (Ministry of Education and Science of Ukraine, 2017b).

The conference was attended by the heads of a total of more than 30 Chinese and Ukrainian universities, the Minister of Education and Science of Ukraine, L. Grynevych, the Chinese Ambassador to Ukraine and others. During the forum, the Chinese and Ukrainian sides identified priority directions and major activities to jointly promote the development of educational cooperation between the two countries, and agreed to further deepen cooperation in the areas of strengthening academic exchanges, inter-school exchanges, development of vocational education, and promotion of Chinese and Ukrainian languages teaching and learning. The heads of Chinese and Ukrainian universities spoke freely and exchanged in-depth views on topics such as research cooperation between universities, language teaching, exchange of foreign students and so on. Rectors from Chinese universities also summarized the exchange and cooperation programs between the two countries. Positive planning for exploring the direction of further cooperation and development in the future clear goals (Ministry of Education and Science of Ukraine, 2017b).

Peng Long, president of Beijing Foreign Studies University (2024), said that BFSU opened a Ukrainian language program in 2003, and there are now eight students majoring in the program. In 2016, the university set up the Ukrainian Centre, which is dedicated to carrying out research on the Ukrainian language, culture and national traditions, promoting the teaching of Ukrainian language, introducing Ukrainian history and national culture, and promoting classic works in the field of Ukrainian literature and art. Liu Hong, president of Dalian University of Foreign Languages, said in his speech that Dalian University of Foreign Languages, relying on the "Belt and Road" mechanism of humanistic exchanges, has comprehensively strengthened exchanges and cooperation with Ukrainian colleges and universities.

2015, Dalian University of Foreign Languages opened the Ukrainian language elective course. The Centre for Ukrainian Studies of the university has hired four

scholars from Ukrainian universities, and Chinese and Ukrainian teachers have jointly completed the preparation of the textbook of "Ukrainian Regional Studies", and are in the process of preparing the textbooks of "Ukrainian National Situation" and "Ukrainian Language Introductory Courses". In the area of reciprocal sending of foreign students, five students from the university went to study at Kyiv National Linguistic University, and 10 Ukrainian students were accepted to study Chinese language, five of whom were granted scholarships by the Chinese government (Dalian University of Foreign Languages, 2024).

Rui Zhiyuan, president of Lanzhou University of Technology, confirmed that the school actively responds to the "Belt and Road" construction and continues to expand cooperation and exchanges with Ukrainian universities. In 2015 and 2016, through the China Scholarship Council's CIS Exchange Scholarship Program, a total of 5 students majoring in materials, welding, and construction engineering were sent to V. N. Karazin Kharkiv National University, National Metallurgical Academy of Ukraine, and Taras Shevchenko National University of Kyiv, studying for a master's degree at the Kyiv National University of Construction and Architecture, a young teacher visited Ivano-Frankivsk National Technical University of Oil and Gas in Ukraine (Lanzhou University of Technology, 2024).

Speaking at the event, Yu Baotao, vice president of Anhui University, said the university established the Confucius Institute with V. N. Karazin Kharkiv National University in 2008. So far, 10 teaching centres have been built in the eastern part of Ukraine and 25,371 students have been trained. Through the Chinese language proficiency test students 1300 times, transported 310 excellent young people in Ukraine to study in China. 2012, Anhui University teachers and students' art troupe went to Ukraine tour. 2017, the Confucius Institute for the Chinese-funded enterprises in Ukraine Beijing Tianjiao Aviation Company Limited talent selection and cultural integration, for the Anhui jianghuai automobile in the development of the Ukrainian market, to provide a strong service support. These are the fruitful results of educational exchanges and cooperation between the two countries in recent years (Anhui University, 2023).

On the Ukrainian side, the heads of Taras Shevchenko National University of Kyiv, V. N, Karazin Kharkiv National University, Yaroslav Mudryi National Law University, Kyiv National Linguistic University and the Ivan Franko National University of Lviv introduced to the participants the advantages of teaching and research in their universities. According to data from the Ukrainian International Education Centre, China is the ninth largest source of foreign students in Ukraine. The total number of Chinese students studying in Ukraine in 2017 was 2,082, and art is the most popular major among Chinese students (Forum of Rectors of Chinese and Ukrainian Universities, 2017).

The top five most popular universities in Ukraine for foreign students are: Taras Shevchenko National University of Kyiv, V. N. Karazin Kharkiv National University, Ivan Franko National University of Lviv, Odessa I. I. Mechnikov National University, and Sumy State University (Forum of Rectors of Chinese and Ukrainian Universities, 2017). After the meeting, more than 20 universities in China and Ukraine signed an inter-school cooperation framework agreement. The Chinese side said that we should work together to provide intellectual support for the two countries to jointly build the "Belt and Road", through joint research and development, joint construction, sharing and other measures to help China-Ukraine education cooperation in the new situation in a comprehensive manner, and promote cooperation between the two countries to reach a new level of higher education (Forum of Rectors of Chinese and Ukrainian Universities, 2017).

Since the establishment of diplomatic relations between China and Ukraine, the educational cooperation between the two countries has been fruitful, and dozens of colleges and universities of the two countries have established solid cooperative relations, and the educational exchanges between China and Ukraine are becoming a new highlight of the practical cooperation between China and Ukraine. Ukraine is an important partner of China in building the "Belt and Road". Chinese and Ukrainian universities should seize the historical opportunity and work together to provide intellectual support for the construction of the One Belt, One Road between the two countries, and through regular exchanges in science and technology and humanities,

the establishment of joint laboratories, high-tech cooperation platforms, technology transfer centres and other initiatives, to help China-Ukraine education cooperation in the new situation in a comprehensive manner.

In order to better realize the positive effects of international exchanges and cooperation on the development of the university and the quality of talent training, it is particularly important to strengthen the establishment of international exchange and cooperation programs. In China, the specialized agency in charge of international exchange and cooperation in the university should review the international exchange and cooperation projects, screen out the projects that are in line with the university's mission and talent cultivation goals, and set up the corresponding cultivation program plan and expected goals for each project. The planned implementation of international exchange and cooperation activities not only promotes better application of international exchange and cooperation activities, but also better promotes the continuation of international exchange and cooperation. They do a good job of publicizing the program within the school and actively encourage students to participate in program activities by providing them with language and cultural training in the partner country and support in the form of scholarships and grants. Along with the promotion of educational exchanges between China and Ukraine along the One Belt, One Road, the study of the culture of the exchanging countries in the early stage can help the participating students to understand more about the geography, politics, history and economy of the exchanging countries, better understand the differences in the cultures of the other countries, and inspire them to think about the relevant educational issues of the country, so that they can take part in international exchanges and cooperation with their own ideas and questions. Again, in the execution of the project to carry out the implementation of the whole process of supervision, the school will also regularly learn about the students' learning and practice, student feedback on the progress of international exchange and cooperation activities and experience, to better promote the achievement of the effect of student exchanges, and at the same time, this feedback will also be used in the evaluation of the project after the exchange activities. Program evaluation is the final part of the international exchange and

cooperation program, the purpose of which is to assess the positive significance of the program's implementation on the development of the university and the cultivation of talents. Project evaluation is a result-oriented assessment of whether the objectives of international exchange and cooperation activities have been achieved, and the results of such project evaluation become the basis for the review of a new round of activities and the continuation of international exchange and cooperation programs. It is also the main basis for the continuation of international exchange and cooperation programs.

Since the implementation of China's One Belt, One Road policy in 2013, the number of educational exchanges and cooperation programs between Ukrainian and Chinese universities has been increasing over the past 10 years. In order to strengthen exchanges and cooperation with Ukrainian universities, China's State Scholarship Council has approved six educational exchange and cooperation programs to promote the development of education between the two countries.

The six cooperation programs present the promotion of international cooperation and training programs with Ukraine and other countries, the training program for professionals going to Ukraine and other countries, the program for arts and sports in Ukraine and other countries, the program for short-term exchanges of experts and scholars going to Ukraine and other countries, scholarships for cooperation with National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", and the Ukrainian Exchange Scholarship Program (see Fig. 3.1 and Appendix C).

序号	項目各称	源出學道	透源类别	留学国别地区	申报时间	受理单位	评申时间	果取时间
1	国外合作项目	促进与债马白国际合作语 各项目	访问学者 博士研究生 联合培养博士生 硕士研究生 联合培养硕士生 本科福班生	俄罗斯 乌克兰 白 俄罗斯	3月1-10日 (第一批) 8 月1-10日 (第二批)	国家留学基金受理单位及有 美商校	3-4月 (第 一批) 9- 10月 (第 二批)	5月 (第一 批) 11月 (第二批)
2	国外合作项目	計概自由专业人才培养社 基	硕士研究生 博士研究生	俄罗斯 乌克兰 白 俄罗斯	3月10-31日 (第一批) 10月8-18日 (第二批)	国家哲学基金受理单位及在 关南核/有关驻外使(版)馆 教育处(组)	4-5月 (第 一批) 11- 12月 (第 二批)	6月 (第一 批) 12月 (第二批)
3	国外合作项目	他岛自艺术体育类项目	硕士研究生访问学者	俄罗斯 乌克兰 臼 俄罗斯	3月10-31日	國家韶学基金受理单位及有 美商校/驻俄乌白三国使领馆 教育处/组	4-6月	6月
4	国外合作项目	专家学者扩张岛白短期交流比划	访问学者	俄罗斯 乌克兰 白 俄罗斯	3月1-10日 (第一批) 9 月1-10日 (第二批)	国家設学基金受理单位及有 关高校	6月 (第一 批) 12月 (第二批)	5月 (第一 批) 11月 (第二批)
5	国外合作项目	与乌克兰国立技术大学合 作奖证金	硕士研究生 博士研究生 联合组养博士研究生 访问学者	乌南兰	3月10-31日	国家韶学基金受理单位及有 关底校/有关驻外径(领)馆 教育处(组)	4-5月	6月
6	与有关国家互接奖 学金计划	乌克兰互接奖学金	本科生 硕士研究生 博士研究生	乌克兰	以通透通知 为推	項目实驗单位	3月(提交 対外联系材 料)	8-8月

Fig. 3.1. Web Screenshot of
Information Platform for National Scholarship Programs
(prepared by the author according to the source: China Scholarship Council, 2024)

1. Promotion of international cooperative training projects with Ukraine. In order to deepen the cooperation between China and Ukraine in various fields, and to promote the internationalization of human resources training between domestic universities and Ukrainian universities and scientific research institutes, the Administrative Committee of the State Scholarship Council (hereinafter referred to as the State Scholarship Council) implements the Program of Promoting the International Cooperation with Ukraine for Cultivation of Talents.

According to this program, scholars have the possibility to visit indicated countries for 3-12 months, doctoral students – for 36-60 months (one year of language preparatory course can be included), jointly cultivated doctoral students – for 6-24 months, master's students – for 10-36 months (one year of language preparatory course can be included), jointly cultivated master's students – for 3-12 months, undergraduate intermediate students – for 6-36 months.

The focus is on supporting disciplines and specialties in which Ukraine have an advantage, including basic disciplines such as mathematics, physics, chemistry and biology, and engineering and technological specialties such as sciences, aerospace, machine building, nuclear energy, ships, new materials, and petroleum engineering.

2. Program for the training of specialists in Ukraine. In order to deepen the cooperation between China and Ukraine in various fields, and to cultivate compound talents who are proficient in professional knowledge as well as the languages of the other countries, the State Scholarship Council supports the outstanding young students to go to Ukraine to study.

The program presupposes the study abroad for doctoral degree during 24-60 months (including one year of language preparatory study), study abroad for master's degree during 12-36 months (including one year of language preparatory study).

Disciplines and specialties in which Ukraine has advantages, including science and technology, majors such as science, aerospace, machine building, new materials, petroleum engineering, medicine, physics, chemistry, nuclear energy, shipping, etc., and humanities and social sciences majors such as law, economics, history,

international relations, sociology, journalism, and literature and creative writing. Art and language majors are excluded (outstanding high school graduates who apply to study abroad under the Support Program for High School Graduates to continue their studies for a higher level degree are not subject to any restrictions on their majors).

3. Ukrainian art and sports programs. This program aims to draw on the deep historical and cultural heritage and rich educational resources of Ukraine to cultivate professionals in the fields of music, art, dance and sports that are in short supply in our country.

According to this program, scholars have the possibility to apply for 3-12 months' scholarship (excluding one academic year of language preparatory study), 15-24 months (including one academic year of language preparatory study), graduate students pursuing master's degree – for 24-36 months' study (including one academic year of language preparatory study).

- 4. Short-term exchange program for experts and scholars to Ukraine. In order to promote exchanges and co-operation in the field of science and technology with Ukraine, the State Scholarship Council organises short-term exchange programs. Experts and scholars are selected for short-term exchange visits to Ukraine for a period of no longer than three months in accordance with the training program and scientific needs. Eligible applicants can apply for two grants at most within one year, without the restriction that they can apply for Scholarship again only after two years after returning to China. The main focus of funding is on scientific and technical specialisations in which the Ukrainians have an advantage (Cykaq, 2021).
- 5. Scholarships for cooperation with National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute". Pursuant to the agreement on cooperation between the State Scholarship Council and National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", the China Scholarship Council (CSC) has set up scholarships for cooperation with the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" to send outstanding students or scholars to this university as visiting scholars, joint doctoral students for further training, or doctoral and master's degree programs. According to the program 20 persons have the

possibility for participation in it every year. The duration of program presupposes the 3-12 months' stay for visiting scholars, 48 months' study abroad for jointly trained doctoral students, 48 months' stay for doctoral degree students, 24-36 months' study for master's degree students. The priority funding for is supplied for such disciplines and specialisations as Mathematics, Applied Mathematics, Applied Mechanics, Computer Science, Physics and Astronomy, Biomedical Engineering, Specialised Machine Building, Biotechnology and Bioengineering, Avionics, Aerospace and Space Rocketry, Nuclear Power Engineering, Thermal Engineering, Power Engineering, Telecommunication and Radio Engineering.

6. Ukrainian Exchange Scholarship Program. Under the China-Ukraine Exchange Scholarship Program, the two sides exchange scholarships annually for students to study or research in each other's countries. The program is open to relevant universities in Gansu Province, Inner Mongolia Autonomous Region and Heilongjiang Province for selection. According to the content of the agreement, 120 persons have the possibility to participate in this program. Among them special attention is paid for doctoral degree students and their 36-48 months' study abroad, master's degree students (24-36 months' study abroad period), undergraduates pursuing bachelor's degree (48-60 months' study abroad period). Ukrainian language, arts, specialities in disciplines in which Ukraine has an advantage, such as shipping, aerospace, nuclear energy, economics, environmental sciences, physics, chemistry, mechanics, construction, welding technology, cement technology, and the study of Ukrainian problems are in the focus of this program.

For different co-operation programs, the information on the degree to be pursued is subject to different conditions and requirements. The selection and dispatch of the students is done according to the different semesters and batches of auditing, which is done once or twice a year. These projects not only give Chinese teachers, students, scholars in specialised fields, etc. the opportunity to study and further their education, but also give Ukrainian schools the opportunity to generate new ideas in the exchange and cooperation in the same field, and to promote the continuous development of education in both countries.

This is also true of the current status of exchange programs for Ukrainian university students to China, where a splendid culture, a long history, a firm political stance, and a rapidly developing economy have given the Ukrainian people a positive and favourable impression of China's international status and image. In addition to the policy support of the Ukrainian and Chinese governments, the majority of Ukrainian students come to China to study through exchange programs between schools. The exchange programs are mainly for students from universities and colleges, and the duration of the exchange programs is usually half a year or one semester, with a small number of programs lasting for one year, as agreed upon through cooperation and negotiation between the schools of both sides. Students from both schools receive a reduction in tuition fees during the exchange period, as well as reductions in accommodation and travel costs, and many programs also offer government or school scholarships.

The Ukrainian education authority has also strengthened contacts and cooperation with Chinese universities in various aspects, forming a mode of exchange and co-operation with Ukrainian official promotion of exchanges, supplemented by private self-issuance. At present, the accelerated development of the education of foreign students in Ukraine, the spread of Chinese language and culture, educational cooperation between universities, the exchange of specialists and projects, and the organisation of educational exchange programs between Ukrainian and Chinese universities are also being developed as a multi-level, wide-ranging and allencompassing platform for educational cooperation.

The development of internationalisation of education has been an inevitable trend, and all countries in the world are facing and exploring the world's common educational problems and their solutions from an international perspective. Through mutual visits, cooperation and exchanges of personnel to cultivate high-quality talents with global awareness, international exchanges and co-operation activities are also an important way that higher education in various countries has chosen.

In the process of building a world university, international exchange and cooperation programs play a pivotal role, and their ultimate goal is to achieve selfimprovement of universities and improve the quality of talent cultivation on the basis of learning and borrowing. The international exchange and cooperation work of the university is carried out in close connection with the layout of the national internationalisation development policy, and the internationalisation of education is boosted by the construction of Confucius Institutes, and the international exchange and cooperation work is promoted through the construction of high-quality teaching staff, language training, cooperation with the first-class Ukrainian universities, institutional synergy, and the setting up of special funds to enhance the quality and increase the efficiency. Simultaneously, combined with the experience of high-level institutions at home and abroad in carrying out international exchanges and co-operation activities, it proposes to clarify the objectives of international exchanges and co-operation, strengthen the process of international exchanges and co-operation services, and improve the management system in order to help solve the problems existing in the process of carrying out international exchanges and co-operation in China, and the degree of integration of the international exchanges and co-operation work and the positioning of the school's running and the layout of advantageous disciplines, and other related deficiencies.

In general, the implementation of the program of exchange and cooperation in school education between Ukraine and China is of great significance. It not only optimises the allocation of resources between universities, but also promotes international cooperation and exchange. In terms of the overall distribution of educational resources, Ukraine has sufficient resources for education in the fields of music, painting and the arts, as well as in such basic disciplines as mathematics, physics, chemistry and biology, and in such engineering and technological specialities as precision sciences, aerospace and aviation, mechanical engineering, nuclear energy, ships, new materials, petroleum engineering, and so forth, whereas China's education in these areas is still insufficient. With the development of international cooperation programs in higher education, the rationalisation of the allocation of higher education resources is an important issue in the development of international exchanges and cooperation between higher education institutions. The Ukrainian-Chinese cooperation

and exchange programs are aimed at attracting and cultivating talented people by promoting effective cooperation between universities of both sides, making full use of their own strengths and special disciplines.

Furthermore, the co-operation program also enriches students' university life and helps to broaden their horizons. Different colleges and universities have different cultural characteristics and school philosophy, and the countries in which they are located have their own special culture. The exchange program enables students to accept the teaching management mode and teaching method of foreign universities, get in touch with local students and teachers, understand the educational philosophy of the target school, and practice their language ability, interpersonal communication and adaptability to the environment. Predominantly, it also improves the mode of running schools in Ukrainian and Chinese universities, promotes the reform and innovation of the management system, and enhances the international reputation of the two countries. Different universities have their own characteristics and cultures in terms of curriculum and student training. The process of mutual cultivation of talents is a process for universities to show their own advantages and strengths, and the achievements of the school's advantages and teaching quality are the driving force to attract more excellent foreign teachers and students and to form a virtuous circle.

3.2. The scope and main features of scientific cooperation and exchanges between Ukrainian and Chinese universities

Most of the scientific cooperation and exchanges between Ukrainian and Chinese universities are implemented through these three channels: cooperation and exchanges between governments, cooperation and exchanges between schools, and matchmaking between intermediary companies (see Fig. 3.2).

The first is government exchange, which refers to the exchange of publiclysponsored international students, training personnel and teachers between the Chinese government and the Ukrainian government in accordance with bilateral education agreements. The second is inter-school exchanges, which mainly refers to cooperation between schools based on bilateral agreements of universities. Since the implementation of One Belt, One Road policy, more and more Chinese universities and Ukrainian universities have signed cooperation agreements.

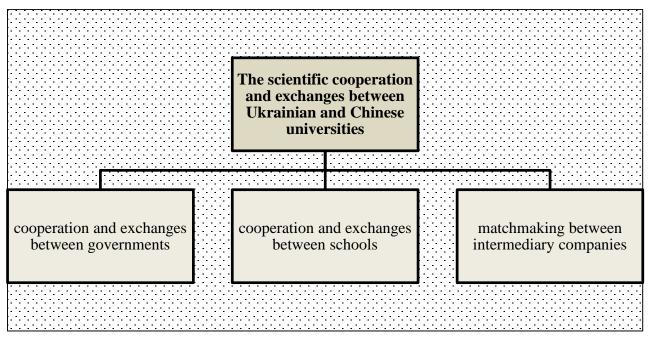


Fig. 3.2. The channels of scientific cooperation and exchanges between Ukrainian and Chinese universities

The third type is the intermediary exchange, the intermediary exchange is a kind of private exchange, and is completely in accordance with the market rules to operate. The students choose some high visibility, good reputation of the study abroad agency for the relevant affairs of study abroad, directly to the intermediary company to sign an agreement, pay a service fee, fully entrusted with the procedures for study abroad. This way is convenient and time-saving, and many self-financed students come to Ukraine to study in this way.

1. The inevitability of scientific cooperation and exchanges between universities in the two countries under the background of globalization. International scientific cooperation and exchanges have become an important part of the development of scientific cooperation among countries and have attracted great attention from governments and scientific circles (De Wit, 1995). As modern science and technology have entered the information age on a large scale, the trend towards internationalization of natural sciences, especially basic sciences, has become more

pronounced, and interdisciplinary and cross-border scientific research as well as the formation of a global information network are practically making international scientific cooperation and exchange an indispensable part of modern scientific and technological breakthroughs and the promotion of economic growth. In fact, it is precisely the internationalization of scientific cooperation and mutual exchanges between universities that promotes the effective use of scientific resources, improves the scientific research environment and quality, and promotes the cultivation of outstanding scientific research talents among partner universities. Governments and academic circles of various countries have reached a broad consensus on the importance of international scientific cooperation and exchanges (Leclerc, & Gagné, 1994; Jacob, & Meek, 2013; Rao, & Huang, 2023; Jia, 2017).

An open and competitive system of international scientific cooperation and exchange provides opportunities for universities:

- to give full play to the advantages and characteristics of the country's scientific and technological educational resources and natural resources,
- to adapt to scientific cooperation and exchange between modern universities in order to effectively attract the resources of international scientific cooperation to make full use of the scientific advances of the cooperating countries,
- to organize their own scientific research activities on the scale and level of international education in order to improve the quality and efficiency of the country's education and research,
- and to formulate a relevant policy on the inclusion of scientific cooperation
 between international universities in the national strategy for development of scientific
 cooperation in education (Corsi, Feranita, Hughes, & Wilson, 2023; Jacob, & Meek,
 2013; Luukkonen, Persson, & Sivertsen, 1992; Shih, & Forsberg, 2023).

The organization and management of international scientific cooperation and exchange should be carried out effectively in order to continuously strengthen national scientific cooperation and research capacity and promote the overall coordinated development of science and technology, economy and society in the country. These are key issues to be addressed by countries in formulating policies on international

scientific cooperation and exchange. As for developing countries, due to the limitations of their level of social and economic development, there are many weaknesses in scientific cooperation and development policies, research and development institutions, scientific research inputs, and the ability to import and digest technology, and socioeconomic development has put forward a lot of urgent needs for cooperation and exchanges. Therefore, in-depth policy research on international scientific cooperation and exchange and effective organization of international scientific cooperation and exchange has become an important way to improve the country's scientific and technological capabilities and to shorten the gap with developed countries (Li, Wang, Zhou, Lu, & Yin, 2023; Merkle, 2023; Su, 2023; Wang, Dong, & Dong, 2022).

The objective need for international scientific cooperation and exchange is determined by the background of contemporary international educational exchange and cooperation between universities, which is also a trend and direction for the future development of educational-scientific cooperation and exchange. The development of modern educational exchanges and cooperation has entered a new era of scientific cooperation, where the contradiction between the rapidly developing capacity for exchanges and the limited resources of the state is constantly growing, and the development of scientific cooperation has turned itself into a project or specialized institution that depends on economic support and a high degree of intellectual cooperation. At the same time, the development of scientific cooperation and exchange is multifaceted. It is not only limited to the educational resources of the university, but also has an increasingly significant impact on the promotion and exchange of culture, the progress of scientific research and educational endeavours, and economic growth (Gao, Zhang, Yang, Wang, & et al., 2023; Lim, & Han, 2023; Shih, 2024; Wu, Yang, Wang, Cheng, & Lu, 2023). The educational and academic collision resulting from inter-university scientific cooperation and exchange is a long-term investment in education between universities. It is a positive and virtuous development for education between the two countries. The social effects and expectations generated by scientific cooperation among international universities also attract support from international social platforms. Excellent scientific cooperation projects and top talent exchange

programs are also constantly increasing (Lu-Gonzales, Tsusaka, Szabo, Kadigi, & et al., 2023; Zhou, & Kan, 2015).

On the other hand, the demand for various resources for scientific cooperation and exchanges is inevitably limited by what each country can allocate. It is necessary to optimize resource allocation, give full play to advantages and characteristics, and learn from each other's strengths and weaknesses. This is the key point in the current educational cooperation between Ukrainian universities and Chinese universities. Cooperative scientific research not only requires financial and intellectual resources, but also places great emphasis on the openness and coordination of the educational systems of the two countries (Kosmützky, & Krücken, 2023; Ramos-Vielba, Sánchez-Barrioluengo, & Woolley, 2016). In fact, no single country is able to provide full financial support for contemporary collaborative scientific research activities, and all countries have integrated international scientific cooperation and exchange into their national systems of scientific development. On the basis of making full use of the advantages of the country's educational and natural resources, international scientific cooperation and exchange programs are effectively combined with the goals of scientific, technological, economic, cultural and social development between the two countries, in order to continuously enhance the strength of national scientific cooperation and the dynamics of economic development.

The objective demands put forward by the development of modern scientific cooperation on scientific cooperation and exchanges among international universities are manifested in many aspects:

Scientific cooperation in the era of globalization often goes beyond the scope of a single country and is of a regional or global nature. For example, cooperation and exchanges in the fields of environment, ecology, ocean, atmosphere, natural disasters, greenhouse effect, disease control, nuclear safety, resource protection, international communication management and so on are all large-scale problems on an international scale, which cannot be accomplished by any one country alone, but need to be solved through scientific practice between universities of two countries, and by experts and scholars in the relevant fields through long-term bilateral cooperation and

research.

— With the large-scale development of scientific and technological cooperative research, many research equipment has become large-scale and expensive. The cost of a single project is also huge. The cost of some basic research facilities and scientific engineering research is also huge. This requires strengthening international cooperation between the two countries, jointly sharing scientific research expenses, and sharing scientific research results and scientific and technological information. At a time when the goal of strengthening national scientific and technological capabilities is being realized, Ukraine and China, both developing countries, in formulating strategies and plans for the development of international scientific cooperation, are doing their best to base major scientific development projects on international scientific cooperation, so as to give full play to the advantages of cooperation in the form of international scientific resources, whereas the main source of scientific and technological talent comes from higher education institutions, so that cooperation in the field of university expertise is strengthened.

The main source of scientific and technological talent is universities, and the strengthening of cooperation in the field of specialized technology in universities is the core of scientific cooperation and exchanges between Ukraine and China. The current global distribution of scientific resources is unbalanced, and the scientific capabilities of each country or region are at different stages of development. The level of education and science and technology in any country is based in some form on the past discoveries and existing achievements of countries around the world. above. The dependence on global economic and scientific and technological development is getting stronger and stronger. The development of science and technology inevitably transcends national boundaries and requires cooperation, exchange and development. No country can lead all the world's scientific frontiers. The "complementarity" formed in cooperation and competition is the main feature of scientific cooperation between countries and regions. Only by strengthening effective international scientific cooperation and exchanges can countries learn from each other's strengths and continuously develop and improve themselves.

- On the one hand, the trend of crossover and penetration between different disciplines is increasingly deepening. Some exploratory and creative cutting-edge scientific results are often produced in emerging and interdisciplinary fields. Basic research in these fields requires a large number of different disciplines and different majors. Mutual intellectual inspiration, exchange and cooperation with scientists from different cultural backgrounds. On the other hand, international exchanges of scientific and technological talents have become an important way for countries to cultivate high-level scientific and technological talents, reserve basic research strength, and achieve intellectual catch-up. At the same time, it also constitutes an important part of international scientific cooperation and exchanges. With the continuous expansion of the scale of international scientific and technological talent training and exchanges, there are more and more "world citizen" scientists, which has prompted the scientific research traditions of various countries to gradually form a unified model, thus accelerating the internationalization process of scientific research.
- International scientific cooperation and competition in basic research will coexist for a long time. When countries formulate development strategies for international scientific cooperation and exchange, they all focus on serving their own scientific and technological, economic and social development goals, so as to improve their national scientific and technological strength and enhance their economic competitiveness. For developing countries, the main purpose of international scientific and technological cooperation among universities is to improve their own scientific and technological level and to promote rapid economic growth in order to shorten the gap with developed countries.
- 2. Historical background of scientific cooperation and exchange between universities of the two countries. Ukraine has a long history and culture, and has very close relations with China in the fields of economy, culture and education. As the centre of science, technology, culture and education, in its historical development Ukraine was an educational powerhouse where talents gathered. Focusing on learning, schools at all levels and of all types carried out activities to learn from Soviet educational theory and experience, for example: organized translations of Soviet teaching plans,

syllabuses and textbooks, and the hiring of a group of Soviet experts to guide their work. With the help provided by the USSR, China sent a group of people to the USSR to study abroad to train the backbone of the political and military forces. This stage of Sino-Soviet educational exchanges started a boom in comprehensive study of the Soviet educational model and development experience. It played a bridging role in the whole history of Sino-Soviet educational exchanges, and also laid a certain historical foundation for large-scale educational exchanges between the two countries after the founding of New China (Bernstein, Chen, Goikhman, Guan, & Zhou, 2010; Vámos, 2023; Zhang, Zhang, & Yao, 2006).

In terms of developing the industrial economy, learning and introducing Soviet technology laid the foundation for New China's modern technology and industry. At the same time, China has also strengthened cooperation in other fields, introducing complete sets of coal, petroleum, electricity, steel, nonferrous metals, chemistry, machinery, medicine, and military industrial equipment and technologies from the Soviet Union.

Since the establishment of diplomatic relations in 1992, Ukraine and China have been friendly to each other and both have relatively rich educational resources. Strengthening educational exchanges and cooperation between the two countries helps both parties improve their respective educational levels and enhance their own economic strength and cultural soft power (Chernenko, Solodovnyk, & Randhawa, 2017; Kravchenko, Yu, Dobrovolska, & Scryl, 2020; Mengyao, 2023; Shkola, & Omelianenko, 2020; Yu, 2021; Xiyu, 2023).

It is an inevitable choice to face the opportunities and challenges brought by the globalization of education and to cope with the increasingly fierce international competition. Education is a key area of humanistic exchanges, which are an important part of China's foreign work and an important force in promoting the healthy development of bilateral relations between Ukraine and China (Qin, & Wang, 2018). The development of scientific and educational exchanges and cooperation between Ukraine and China is of great significance in upgrading the level of humanistic exchanges between the two countries and promoting the development of their bilateral

relations. At present, exchanges and cooperation between Ukraine and China in the field of education are becoming increasingly close, more and more rich in form and content, and the degree of cooperation is deepening, gradually becoming institutionalized and multi-layered, and showing a good development trend.

3. Advantages of Ukraine's educational resources. Mutual recognition of cultural differences between Ukraine and China is a prerequisite for Ukrainian-Chinese educational cooperation, and mutual respect and trust are the basis for win-win cooperation between the two countries. Although, Ukraine has been independent for more than 30 years since 1991, in terms of its historical and cultural development, Ukraine has a long history of education, culture, science and technology. As a centre of science and technology, culture and education, Ukraine is a world leader in aerospace, silicates, welding, shipbuilding, medicine and other specialties. In the arts, oil painting, music, and ballet are world-renowned.

In terms of educational resources, Ukraine has inherited rich resources for higher education, which are mainly manifested in the following aspects: Ukraine, with a population of approximately 40 million people, has more than 700 higher education institutions. Secondly, there are many famous universities. As of 2023, a total of 19 universities in Ukraine are included in the Times Higher Education World University Rankings. The top universities are: Taras Shevchenko National University of Kyiv, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", V. N. Karazin Kharkiv National University, Lviv Polytechnic National University, and Sumy National University. Among the leading universities there are Taras Shevchenko National University of Kyiv and V. N. Karazin Kharkiv National University. Both universities are located in the 1001-1200 segment of the global ranking. These rankings reflect the combined performance of Ukrainian universities on a number of indicators, including teaching, research, international outlook and industry revenue. Despite the challenges of war and political unrest, these universities have achieved a level of recognition and success in the global higher education sector (Times Higher Education, 2023).

The specific performance and position of Ukrainian universities in the World University Rankings reflect the overall performance of higher education in the country in terms of quality of teaching, research impact and internationalization. The rankings of these universities are in the middle and lower reaches of the scale compared to other universities around the globe, but they are still improving year by year, especially in terms of research cooperation and international exchanges, in terms of areas of specialization and strengths. These majors are also highly recognized internationally. For example, V. N. Karazin Kharkiv National University is unique in Physics and Astronomy, Biotechnology and Biosciences, and its Physics and Astronomy program is renowned in Ukraine and Eastern Europe for its world-class laboratories and research facilities. Research in the field of biotechnology and biosciences is also outstanding, attracting a large number of national and international students and researchers. National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" is ranked high in engineering and technology, aerospace engineering. The university's engineering and technology programs are ranked among the leading ones in Ukraine, especially in electrical engineering, mechanical engineering and computer engineering. In aerospace engineering, cooperation with internationally renowned universities such as Harbin Institute of Technology in China promotes cutting-edge research and technological development in this field (Times Higher Education, 2023).

Lviv Polytechnic National University is an internationally recognized institution in the fields of architecture and urban planning, chemical engineering and materials science. The university's architecture and urban planning program is one of the leading programs in Ukraine and has produced many architects and urban planners of European and global renown.

Overall, the distinctive specializations and cutting-edge research areas of these universities demonstrate the strengths and international competitiveness of Ukrainian higher education in specific subject areas. Through cooperation with internationally recognized universities and research institutes, these universities are constantly improving their scientific research and the quality of their education, providing a broad

platform for the development of students and researchers. This further demonstrates the quality and diversity of higher education in Ukraine.

In recent years, Ukraine has gained a reputation as an "international information technology centre". The enormous growth of the domestic IT industry has been largely due to the expansion of the Ukrainian market by a number of international companies, including Microsoft, Google and Samsung, which have opened research and development facilities in Kyiv. However, as an emerging force in scientific and technological development, Ukraine has invested heavily in the development of scientific research, with domestic R&D expenditures totalling \$571 million, and has made rapid progress in computer science, physics, chemistry, engineering, and a number of other fields.

2021, The World Bank approved the adoption of the Higher Education Improvement Project in Ukraine and invested \$200 million in the Ukrainian higher education system. The growth of Ukraine's investment in science, technology and education can be seen from the share of the country's science and innovation data. As can be seen in Fig. 3.3, in 2017-2021, Ukraine's scientific research results are concentrated in several macro-disciplines, such as Physics (19%), Clinical and life sciences (16%), Chemistry (16%), Social sciences (12%) Engineering and materials science (10%) and Electrical engineering (10%).

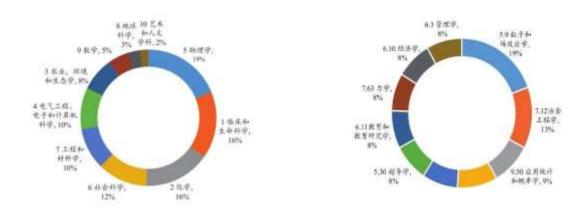


Fig. 3.3. The concentration of Ukraine's scientific research results (Xie, 2022, p. 83)

Over the past 10 years, Ukraine's domestic and foreign investment in research and development has grown significantly. Ukraine has been favoured by many collaborators in areas ranging from computer science and information technology to education and new energy sources.

These collaborative exchange programs allow Ukraine to significantly develop the infrastructure needed for sustainable and efficient technologies and processes. Over the past five years, Ukraine has seen rapid growth in the fields of engineering, computer science, physics, and chemistry, resulting in significant achievements in the country's scientific endeavours. This has led to the expansion of Ukraine's educational resources, which are being actively utilized to attract more international exchanges and cooperation projects. Since the 21st century, the "Belt and Road" policy implemented by China has made the main purpose of educational cooperation to learn from each other's superior educational resources and expand the space for cooperation in science education. The educational cooperation between Ukraine and China is based on the perspective of their own educational needs and on the basis of mutual dissemination of the excellent educational and cultural concepts of the two countries, providing channels and assistance for nurturing more professional talents with an international perspective.

4. The scope of influence of cooperation between Ukraine and China. The National Academy of Sciences of Ukraine has a long experience of cooperation with other countries, and many Ukrainian scientists are engaged in active scientific cooperation with their Chinese counterparts in a number of fields (Xiyu, 2023). For example, in the fields of physics, mathematics, mechanics, materials science, nanomaterials and nanotechnology, information technology, chemistry and biochemistry, molecular biology, genomics and Earth sciences. Cooperation can also take various forms, including: conducting joint scientific research through information exchange, holding scientific forums, delegation exchanges, scholar internships, scientific inspections, participating in conferences; establishing joint ventures, establishing laboratories and scientific research and production centres, etc. (Naumovitz, 2016, p. 69). These scientific forms of international cooperation ensure the steady development and expansion of scientific and technological cooperation

between Ukraine and China. In order to maintain a high level of cooperation, it is particularly important to carry out exchange activities between schools, scientists, and scholars. In developing and strengthening international scientific and technological exchanges, the foundations of scientific cooperation are constantly being improved, providing systematic and long-term guarantees for the successful implementation of cooperation and exchange activities. The agreements signed by the National Academy of Sciences of Ukraine (2024) with The Chinese Academy of Sciences (2024), The Chinese Academy of Social Sciences (2024), The National Natural Science Foundation of China (2024), and the Beijing Municipal Association of Science and Technology (2024) are the basis for cooperation between Ukraine and China.

The legal and contractual basis for the realization of fruitful cooperation between the National Academy of Sciences of Ukraine and universities and academic institutions in different provinces of China has been gradually established. Within the framework of bilateral agreements on this basis, effective cooperation has been realized with the provinces of Guangdong, Heilongjiang and Zhejiang. Economic ties between Ukrainian academic institutions and Chinese institutions are expanding, and the number of bilateral contracts signed and concluded is steadily growing. In addition to these documents, bilateral agreements, memorandums of understanding and contracts have been signed between a number of independent institutions belonging to the National Academy of Sciences of Ukraine and Chinese scientific institutions. Most of the ongoing projects are being implemented by the techno-physical and natural science organizations of the National Academy of Sciences of Ukraine.

For example, the Institute of Welding of the National Academy of Sciences of Ukraine has carried out a number of fruitful projects in cooperation with Chinese schools and research institutes. These include: State Key Laboratory of Modern Welding Production Technology of Harbin Institute of Technology (2024), Guilin University of Electronic Science and Technology, Xi'an Aviation Engine (Group) Company, China New Era Company, several production plants of China Academy of Space Technology, Luoyang Institute of Shipbuilding Materials, Inner Mongolia Institute of Metallurgy, Zhejiang Metallurgical Institute, Zhengzhou Institute of

Mechanical Engineering, Beijing Institute of Aeronautical Material Research, Space Research Centre of Chinese Academy of Sciences, Institute of Marine Instrumentation of Shandong Academy of Sciences, Dalian Institute of Surveying and Mapping, Beijing Iron and Steel Research Institute, Space Research Centre, Marine Instrumentation Research Institute of Shandong Academy of Sciences, Dalian Survey and Mapping Research Institute, Beijing Iron and Steel Research Institute (Naumovitz, 2016, p. 69-70). The institutions collaborate in the field of welding and related technologies, especially in the field of wear-resistant fusion welding and brazing, research and use of high-efficiency welding materials and technologies, as well as the supply of related production equipment. An important result of our collaboration was the creation of the Joint Welding Research Institute, based at the Patton Welding Institute of the National Academy of Sciences of Ukraine and the Guangzhou Institute of Industrial Technology.

Within the framework of the agreement between the National Academy of Sciences of Ukraine and the Chinese Academy of Sciences, scholars from the Bisarenko Institute of Strength Problems of the National Academy of Sciences of Ukraine and the Institute of Metal Research of the Chinese Academy of Sciences are conducting joint research on the topic of "Material dissipation properties and stress-strain states". The Virgin Institute of Low Temperature Physics and Technology of the National Academy of Sciences of Ukraine and the University of Science and Technology Beijing (are jointly conducting research on a project titled "Production of amorphous nanocomposite coatings and study of their properties under extreme conditions" (Naumovitz, 2016, p. 70).

In the fields of basic and applied research in chemistry, geochemistry, bioorganic chemistry, nano-chemistry and the latest adsorption technology, the National Academy of Sciences of Ukraine, the Institute of Biology of the Shandong Academy of Sciences, the University of Science and Technology of China, and the National Academy of Sciences of Ukraine L. V. Pisarzhevsky Institute of Physical Chemistry is conducting collaborative research with the School of Chemistry and Chemical Engineering of Shandong University, the Institute of Bioorganic Chemistry

and Petro-chemistry of the National Academy of Sciences of Ukraine, and the Beijing High-Tech Centre (Naumovitz, 2016).

At the same time, a number of collaborative projects have been initiated between institutions of the National Academy of Sciences of Ukraine and institutions in China. For example, the International Scientific Centre for Information Technologies and Systems of the National Academy of Sciences of Ukraine, the Ministry of Education and Science of Ukraine and Sichuan University, the Institute of Radio Physics and Electronics of the National Academy of Sciences of Ukraine and the Institute of Physics of the Chinese Academy of Sciences, the Institute of Strength Problems of the National Academy of Sciences of Ukraine and the Institute of Metals of the Chinese Academy of Sciences, the Institute of Environmental Geochemistry of the National Academy of Sciences of Ukraine, the Ministry of Emergency Situations of Ukraine and the University of Science and Technology of China, and the Lanzhou Institute of Chemical Physics of the Chinese Academy of Sciences, Ministry of Emergency Situations of Ukraine with the University of Science and Technology of China and the Institute of Chemical Physics of the Chinese Academy of Sciences in Lanzhou . Nowadays, scientific cooperation between Ukraine and China is going beyond short-term and medium-sized projects, and the next step is to realize cooperation on large-scale long-term projects. On its basis it is possible to start production of high-tech products, and the National Academy of Sciences of Ukraine has developed 60 commercial projects offered to China, and the results of these collaborations are remarkable (Naumovitz, 2016).

Among the results of these and exchange projects, we can see that Chinese universities and enterprises are increasingly interested in Ukrainian technology. China speaks highly of Ukraine's high-tech level and confirms that bilateral cooperation in many fields of science, technology and industry will be fruitful. Overall, scientific and technological cooperation between institutions such as the National Academy of Sciences of Ukraine and Chinese universities and the Academy of Sciences has increased significantly in recent years. Today, about 70% of academic institutions have scientific, technical and commercial partners in China. These collaborations cover

almost all branches of science. Foreign economic relations between institutions of the National Academy of Sciences of Ukraine and Chinese organizations are actively expanding, and the number of bilateral contracts signed and fulfilled is also increasing (Naumovitz, 2016).

The National Academy of Sciences of Ukraine regards cooperation with China as one of its priority development directions for international relations. Cooperation with China not only promotes mutual understanding of the strategic development and scientific research results of the two countries, but also further develops the relationship between Ukrainian and Chinese scientific and industrial organizations fruitful direct contact. After China launched a series of opening-up policies, the level of science and technology has grown steadily and rapidly, China's huge market, and interest in applied innovative scientific research, as well as the high-level research of Ukrainian scientists, have given Ukraine and China the prerequisites for cooperation in science, technology and the specific meaning of the basic principles of mutually beneficial cooperation in the field of innovation (Xu, 2019a).

5. Main features of scientific cooperation and exchange between Ukrainian and Chinese universities. Openness is a basic feature and inherent requirement of modern higher education, and internationalization is an important development trend of higher education in the world. International cooperation in education adheres to the principle of openness, and opening up with an open mind and actively engaging in educational exchanges and cooperation with other countries is an important source of a country's educational vitality.

It is worth emphasizing the initiative to open up and promote national educational cooperation and development as well as exchanges and mutual learning among civilizations. Since gaining its independence, Ukraine has been facing the world with a positive and open mind, actively participating in world cultural exchanges and engaging in international educational cooperation. When selecting countries to cooperate with, it has made friends with the four corners of the world and the five continents. The forms of cooperation in the field of education are not limited to any one category, and are carried out in a variety of ways. Ukraine's international

cooperation in the field of education and science is constantly expanding, and agreements have been reached with more than 40 countries and 610 foreign partners, attracting additional funds and advanced experience (Zhao, 2022, p. 117). A proactive policy of openness is also being pursued in the areas of the economy, trade, education and scientific research. Support is encouraged to guide international exchanges and cooperation with different countries.

As economic powers, both Ukraine and China have many complementarities in terms of resource-richness, material economy and knowledge economy. Proactive opening to the outside world and international integration optimize the knowledge economy and promote the development of global integration. The internationalization level of China's universities opening to the outside world is constantly increasing, and it is not only the world's largest sender of foreign students at present, but also Asia's largest destination country for students studying abroad (Xiao, 2021, p. 184).

Sino-foreign cooperation in running schools, international scientific research cooperation programs with foreign universities and other institutions have been developing rapidly in recent years, and the scale of international exchanges and cooperation in higher education has been expanding. The opening up of higher education to the outside world has made great contributions to improving the level of higher education and science and technology in China, promoting modernization and facilitating exchanges and mutual understanding among civilizations.

One of the development strategies of higher education in China is to accelerate and expand the opening up of higher education to the outside world. In opening up higher education to the outside world, Ukraine and China strongly advocate the absorption of advanced science and technology and management experience between the two countries, and endeavour to create good environments for exchanges and cooperation between the two countries under open conditions.

In international educational cooperation, Ukraine has taken the initiative to build a cooperation and exchange platform and is good at learning from other countries' experiences. Ukraine participates in international projects and learns about foreign teaching and research experiences through academic seminars and international

conferences. Ukraine has held and participated in many international seminars and gained valuable experience in the development and transformation of new technologies.

In addition, since 2018, Ukraine has also held multiple international seminars with the themes of "Machine Manufacturing Welding" and "Power and Information Technology Automation Equipment", with universities, scientific research institutions, and enterprises from more than 40 cities in 8 countries around the world (Zhao, 2022, p. 117), attend meetings with representatives of social organizations. The convening of these international seminars also shows the trend of scientific research, that is, strengthening international cooperation and attracting the participation of foreign education, scientific research, and production forces can effectively solve scientific research, production, and innovation problems.

It is worth emphasizing *equal exchange and sharing of cooperation results in a joint and shared manner*. Commitment to exchanges and cooperation in higher education with other countries on equal terms is the main feature that has led to the conclusion of cooperation and exchanges between Ukrainian and Chinese schools. Scholars advocate three characteristics of the development of educational cooperation:

- first, universality, that is, being able to be recognized and accepted by other countries and other nations;
- second, equality, that is, being able to communicate with foreign countries on an equal footing;
 - third, openness, that is, be fully open to the outside world.

Equal exchanges in the opening up of higher education to the outside world are not just about learning science, technology, educational experience and other knowledge from foreign countries, but an emphasis on mutual learning and reference; not blind worship or complacency, but an emphasis on equality and mutual benefit.

The International Association of Universities (2024) is an important international organization in the field of higher education. The organization advocates reciprocity, respect, and equality as the basis for international exchanges and cooperation in higher education, and jointly responds to dialogue and interaction based on reciprocity, respect, and equality international challenges (The International

Association of Universities, 2024). When participating in international educational cooperation, Ukrainian universities communicate with first-class foreign universities to jointly develop professional talent training programs and inject fresh vitality into the training of professional talents in Ukraine. It is this injection of fresh vitality that assists the Ukrainian higher education system to generate endogenous innovation mechanisms, cultivate internationally competitive college students, and more fully respond to the challenges of the tertiary industry revolution.

Exchanges and cooperation produce win-win results, and joint efforts are needed to meet the challenges of education. Openness brings prosperity and progress, while closure leads to backwardness. The development of education in Ukraine and China is an upward spiral, and in the process of progress, of course, will be accompanied by various difficulties and challenges.

In recent years, the worldwide wave of anti-globalization has had a serious impact on the opening up of higher education in international universities, and the two countries, Ukraine and China, need to adhere to the exchanges and cooperation in higher education between schools in the complex international situation, and to look for opportunities for cooperation and development amidst the challenges and crises. Adherence to the principle of opening up to the outside world is one of the valuable experiences formed through continuous exploration in the course of the development of higher education in China.

In today's world, the degree of interconnectedness and interdependence among countries has never been deeper, and human beings are living in the same space and time where history and reality meet, aspiring to and pursuing a better life, forming a community of human destiny. UNESCO calls for emphasizing the "global common good" in international exchanges and cooperation in education, opening up the creation, mastery and use of knowledge to all, and integrating education governance with knowledge governance (UNESCO, 2015).

The building of a community of human destiny is essentially a quest for the global common good. Cooperation and exchange of higher education needs to promote the construction of a multi-centre situation of international exchange and cooperation

in higher education, sharing international resources while sharing risks (UNESCO, 2009, 2015). China-Ukraine educational culture has many similarities as well as great differences. In order to find the combination point for the integration of the two cultures, it is necessary to correctly treat the differences between the two cultures and turn them into complementary advantages. On the contrary, if the differences between the two cultures are opposed to each other, the effectiveness will be reduced.

Vigorously give full play to the effectiveness of higher education opening to the outside world in promoting national reform and development, promoting the exchange and mutual understanding of civilizations and building a community of human destiny, the development of higher education exchanges and openness to the outside world to the present day, not only need to be coordinated at the school level to plan, and actively respond to the national open-door strategy, but also need to promote the internationalization of universities to promote the idea of the implementation of new initiatives, to break through the gap between the faculties and departments and functions, and to build open, internationalized higher education learning exchanges and living environments. This is a task that needs to be carefully studied. The integration of educational and cultural cooperation and development in Ukraine and China focuses on the harmonization of schools and people in Ukraine and China, and the development of cultural and educational programs focuses on exchanges, and only through continuous exchanges can there be mutual understanding, and then mutual understanding and comprehension, thus promoting a virtuous circle of cooperation and exchanges between the two countries.

We have discovered some problems in the process of in-depth research on the international exchanges and cooperation of universities and colleges. The number of courses jointly developed by teachers from universities in Ukraine and China is relatively small, and the number of well-known experts and scholars introduced is also relatively small, which has certain restrictions, and opportunities for teachers and students to exchange and study abroad are also relatively limited. This situation will definitely limit the cultivation of talents in both countries and is not conducive to the international development of higher education.

This requires the guidance of national policies, keeping pace with the times, insisting on comprehensively implementing the international education concept, implementing the international education concept of higher education, improving the teaching quality of higher education, and implementing the international education concept into all aspects of teaching and management. Improvement of teachers' understanding of international education, promotion of teachers and students to actively participate in international exchanges, create a strong international cultural atmosphere on campus, build an international teaching faculty, cultivate more international compound innovative talents, and promote international exchanges and cooperation in colleges and universities, steady development of international cooperation.

3.3. The ways to improve cooperation and academic exchanges between two countries

International cooperation and educational exchanges between Ukraine and China have a solid legal basis and diversified channels, but there are also some shortcomings that need to be constantly improved and upgraded. In general, they are as follows:

1. Potential and opportunities for expanding cooperation. Since the establishment of diplomatic relations between Ukraine and China, the level of cooperation has been growing, but in general, the current cooperation is still at an intermediate level, and there is a need to strengthen cooperation and exchanges between the two countries, to create a favourable environment for the development of the level of international education between the two countries, and to continue to expand the potential and opportunities for cooperation. The knowledge systems and educational resources of Ukraine and China have many complementarities. The basis of cooperation between the two countries is very close and they have a certain understanding of each other.

With the development of a knowledge-based economy and the advantages of education and human resources, all countries are actively engaged in the competition for comprehensive national power. Therefore, cooperation and academic exchanges between Ukrainian and Chinese universities must establish a long-term, stable and effective mechanism of cooperation, expand mutual benefits and complementarities, provide opportunities and facilities for cooperation, seize the potential of future educational development, and broaden the breadth and scope of academic exchanges. In the existing cooperation to find the best way of cooperation, to carry out mutually effective academic exchange programs, continuously expand the scope of cooperation and improve the level, from point to point, and gradually promote to achieve a high level of comprehensive cooperation in the education system.

Active intermediary organizations, communication of mutual information, shortening the distance of cooperation and exchange between the two sides. The establishment of intermediary organizations to facilitate the implementation of cooperation and exchange projects is a common international practice. Currently, it is an indispensable strategic tool in the field of cooperation in the framework of educational and academic exchange between Ukraine and China. It is well known that both countries have their own strengths in educational and academic development. In the case of cooperation with high-profile and large-scale universities, there are multiple channels of information, and cooperation activities can be carried out quickly and directly without the involvement of intermediary organizations. However, there are still a large number of small and medium-sized colleges and universities in the two countries, their strength and information channels compared to high-profile schools, and they need intermediary organizations to participate in the communication of information and understanding of the broadening of cooperation and exchange programs. They can help to find potential partners and programs, and increase mutual trust between the cooperating schools. Therefore, by establishing various types of intermediary institutions, involving scholars, social organizations and diplomats, and communicating mutual information on a wide scale, it will be easier to find suitable partners and cooperation projects and to create conditions and opportunities for greater

and greater cooperation in the future.

3. Strengthening exchanges and cooperation between local universities to find more entry points for economic, trade, and scientific and technological cooperation between the two countries. The strengthening of exchanges and direct cooperation between local schools should be viewed as an important strategy in both Ukraine and China. Since the liberalization of the education system in both countries, the independence and autonomy of local schools have increased considerably. In the face of the imbalance in regional development, both countries, whether they are developed or underdeveloped regions in terms of education, are searching for partners and cooperative projects for their own development, both domestically and globally, in order to minimize the differences brought about by the imbalance.

In the process of economic restructuring and reorganization, there is a multilevel opportunity for capital financing and technology transfer between the two regions (Литовченко, & Критський, 2023). Interaction between developed regions, and between developed and less developed regions, can lead to strong alliances and mutual cooperation. The expansion of exchanges and cooperation between Ukraine and China at the local level will also help to correct some of the prejudices in favour of the Western market, which is not home to many of the most urgently needed projects. The popularization and wide application of network information technology provide an effective platform for universities to participate in internationalization and offer online services for generating new international education markets. With the acceleration of the process of networking education among universities, between universities and society, and between different countries and regions, universities in many countries are offering degree courses and virtual courses on the Internet, carrying out distance education and cyber-academic conferences, as well as jointly carrying out virtual schooling cooperation with universities in different countries and setting up virtual universities, which expands the space for schooling and promotes the enthusiasm of universities to participate in internationalization.

4. *Difficulty in seeking first-class educational partners*. In order to speed up the pace of internationalization, many local universities have begun to introduce

foreign teachers, start joint training with foreign universities, and participate in international exchanges and cooperation in various ways. However, it is still a difficult problem for the universities to know whether the foreign teachers they bring in are good or not, and the number of famous foreign universities they jointly train. It is not the case that the more foreign teachers and experts you bring in and the more you cooperate with foreign universities, the more internationalized your university will be. Many local universities have difficulties in seeking first-class educational cooperation partners to improve themselves due to many limitations in terms of funding and their own conditions. Therefore, how to find world-class educational cooperation partners and enhance the level of local universities participating in internationalization also poses difficult problems to university foreign affairs workers. Universities in Ukraine and China also discovered the root of the problem at the same time and adjusted and improved foreign teaching resources.

5. Lack of teaching staff and management cadres adapted to the needs of internationalized universities operation. The particularity of foreign affairs work in colleges and universities often involves multiple departments, which requires the efforts of the entire school to coordinate the work. At present, most of the foreign affairs departments at the school and department levels established in major universities are organized by personnel selected from other administrative departments of the school. They are just a formality. They are put into work directly without professional foreign affairs training, and they are even transferred relatively frequently. The number and quality of personnel varies. Many faculty workers have incorrect attitudes towards participation in foreign-related work, unclear work objectives and tasks, and lack of effective supervision and guidance, failing to identify and solve problems in foreign-related work in a timely manner, and lack of faculty and management cadres adapted to the needs of internationalized school running.

With the development of society, the deepening of educational reform and the trend of internationalization of higher education, the links between schools and various sectors and fields of society are becoming more and more extensive, and the school organization, in addition to coordinating the relationship between various relevant

sectors, groups or groups of people in the school and the social environment in which it is situated, should coordinate the relationship between the school and the relevant sectors, groups or groups of people in other countries in accordance with the trend of internationalization.

Moreover, with the expansion of the autonomy of the school, the resume of the independent management mechanism, the university relies on the influence of the education administration and administrative instructions will gradually reduce, the survival and development of the school must rely on its own strength and its communication activities.

As an important part of the management of colleges and universities, the foreign affairs management of colleges and universities is the main window of colleges and universities for foreign contact and communication, and an important bridge for international academic and cultural exchanges.

The foreign affairs management work of universities has become an important link to enhance the school running level, improve the quality of teaching to serve the reform of higher education and the strategy of developing the country through science and education, and it has also become one of the necessary conditions for the internationalization of universities. Local universities and colleges foreign affairs work to promote the internationalization of universities and higher education at the same time, continue to keep abreast of the times and actively innovate, in order to achieve sustainable development driven by internationalization. This is also one of the most central aspects of educational development cooperation between the two countries.

6. Lack of competitive educational service programs and educational products. The development of globalization has made the international circulation of technology and talents become the norm, not only do foreign universities frequently throw olive branches to China's outstanding students and research and education teachers, but also the competition among domestic universities in the competition for students, the strength of teachers, the establishment of the brand, and the quality of education, etc. has been escalating. When colleges and universities encounter development "bottles" such as student crisis, brain drain, and lagging discipline

development, "Neck", enhancing their competitiveness by taking the road of international education has become the only way for them to get out of adversity.

First of all, the pressure of the social functions of the university, in the new situation, the university shouldered by the cultivation of talents, scientific research and service to the community of the three social functions need to be strengthened through continuous participation in international exchanges and cooperation and innovative development; Second is the pressure of funding, the government's investment in higher education is insufficient to make colleges and universities more difficult under the pressure of rising education costs. Insufficient investment in higher education has put colleges and universities in a dilemma under the pressure of rising education costs; then there is the pressure of employment, the brutal talent market is not only the survival of the fittest for graduates, but also a constant reshuffle of colleges and universities; and lastly, the pressure of talent and technology, the stability of the college and university faculties and disciplines depends on the school's ability to provide them with a piece of good soil for growth and a platform to connect with the international community. The development of university faculty and disciplinary strength depends on whether the university can provide them with a good growing soil and a platform for international integration (Нітенко, 2015).

7. Strengthening humanistic exchanges and jointly promoting the pace of scientific cooperation. People-to-people and cultural exchanges are an extremely important bridge in relations between countries. In order to promote the further development of educational cooperation and academic exchanges between the two countries, the most important thing is to have a sense of identity at the level of cultural exchanges. The main way of people-to-people exchanges is cultural exchanges, which can promote people-to-people bonds. This also plays an effective supporting role in the political and economic development between the two countries. Different audiences have very different needs and understandings of Chinese culture. The spread and influence of Chinese culture cannot be limited to superficial culture such as dragon and lion dance, paper-cutting, Chinese knots, and martial arts performances. There are also deeper cultural values that exist in the superficial culture. In the development of

contemporary China's modernization, internationalization, scientific education talents and other fields. Therefore, we should strengthen the connection on the teaching effect of language and culture on the basis of maintaining the educational cooperation, and vigorously develop the cultural industry for the Ukrainian market at the same time of the educational cooperation. We should spread to Ukraine the cultural and artistic works of songs, dances, paintings, films and TVs with Chinese characteristics which have the atmosphere of the times. The two countries can translate distinctive classics and famous works from each other. For example, the Ukrainian language department of China Radio and Television International is also working hard to promote mutual understanding between the two peoples. The release of the Chinese-Ukrainian bilingual book "Chinese Historical Stories" has also won the love of children in Ukraine and China, and has also been welcomed by adult readers in both countries. With the deepening of culture between the two countries, the rich history, cultural resources and scientific education of China will be interpreted and promoted in a comprehensive way through music, animation and movie art. Let more Ukrainian people like, understand Chinese culture, want to come to China to study and exchange, and better understand a comprehensive development of China.

Ancient Chinese civilization is also constantly renewed new vitality, in addition to the civilization of the four great inventions, in May 2017, young people from 20 countries along the "Belt and Road" selected the "Four New Chinese Inventions", which are: High-speed rail, scan code payment, shared bicycles and online shopping. In fact, these four inventions are only relatively advanced in promotion and application in China and have a greater impact on foreign countries. In recent years, China has always advocated telling China's stories well, spreading China's voice, and achieving diversified cooperation. If the cultural field is promoted comprehensively, educational cooperation will naturally be implemented. Introducing China in a way that is more acceptable to the Ukrainian people will further increase the attractiveness of cooperation between the two countries.

On the Ukrainian side, academic cooperation and win-win situation between the two countries can not be separated from the Confucius Institute as a link connection. We should make good use of the platform of Confucius Institutes to promote cooperation. Since the moment the Confucius Institutes blossomed in the world, they have driven the Chinese language fever of countless foreign friends learning Chinese. The Chinese language competitions of "Chinese Language Association" and "Chinese Bridge" have also attracted people around the world who are keen on learning Chinese and interested in Chinese culture.

The One Belt, One Road initiative proposed by China has received support from countries along the route and some countries not along the route. Among Xi Jinping's "policy communication, road connectivity, unimpeded trade, currency circulation and people-to-people connectivity", i.e. five links, "people-to-people connectivity" refers to exchanges and cooperation in the humanities field between relevant countries. It is the social foundation for cooperation in the One Belt, One Road project. How should Confucius Institutes seize the opportunities for development and accurately find their roles and positions? How to promote the communication and understanding between different cultures and Chinese culture, further play the role of a platform for cultural exchange, and become a service area and gas station along the "Belt and Road"? These are also questions worth thinking about.

Being overseas and far away from the motherland, Confucius Institutes teach Chinese language and organize cultural activities locally. However, it is not enough to focus only on teaching and activities. Confucius Institutes should not only be language training institutions, but also platforms for exchanges among cultures, and they need to spread Chinese culture in the home ground of foreign cultures. In order to improve the business level of Confucius Institutes and think about the sustainable development of Confucius Institutes, more and more scholars in China pay attention to examining the communication effect of Confucius Institutes and discussing the communication strategy of Confucius Institutes.

After years of development, the Confucius Institutes in Ukraine have become more and more mature in Chinese language teaching and cultural promotion. The Confucius Institutes have naturally become an important platform for humanistic exchanges between Ukraine and China and an effective bridge for enhancing the friendship between Ukrainian and Chinese people. Most Ukrainians hope to study Chinese at the Confucius Institute, make more Chinese friends and learn about Chinese culture through learning Chinese. Taking the Confucius Institute in Ukraine as an example, for young groups, the Confucius Institute can use new media platforms to spread information.

Because social media has open and interactive characteristics, mobilizing their enthusiasm and participation based on its strong interactivity and sense of participation will help enhance interaction and the influence of the Confucius Institute. New media, as an emerging medium, is constantly changing people's way of communicating and exchanging ideas. As the main force of communication and cooperation in the 21st century, Confucius Institutes are also moving forward in exploring all aspects of their development and improvement. Under the new media environment, if Confucius Institutes want to develop better and play a good role in the construction of their own communication platform, they must seize and adapt to the characteristics of the new media and make use of them to help their own development. Particular attention is paid to its brand communication and influence building. In the communication in the new media environment, in addition to the educational and scientific research cooperation between mainland China and Ukrainian universities, the number of Ukrainian students and exchange students in the remote western Xinjiang region is also increasing.

For example, more than dozens of exchange students from Xinjiang University of Finance and Economics majoring in Chinese International Education go to Ukraine every year. Universities in China's Xinjiang, and Ukraine's Taras Shevchenko National University of Kyiv, and V. N. Karazin Kharkiv National University are strengthening cooperation in eliminating language barriers and expanding cooperation in various subject areas to promote cooperation in cultivating high-level talents in course teaching, scientific research projects, and internship practices (Fan, 2014, p. 98).

However, there are also some essential difficulties in the exchanges and cooperation between universities in Ukraine and China. They do not know each other well enough and have little substantive cooperation. The cooperative training of high-level talents involves a single subject category, is small in scale, and is not rich in forms.

Language barriers have restricted the scale and scope of the cooperative training of high-level talents between the two parties in depth.

The first step in studying in Ukraine is to be educated for language study. Before formally entering the Ukrainian university, you also need to follow the requirements of the first year of language preparatory education, and then enter the professional study. The study and mastery of the Ukrainian language preparatory course is slightly difficult for Chinese students who have never been exposed to the Ukrainian language. In the preparatory studies, in addition to language learning, there is also the study of Ukrainian history, geography and culture, which is very helpful for Chinese students to understand Ukrainian culture and history more quickly. However, this also objectively increases the difficulty of carrying out cooperative training of high-level talents. For high-level educational cooperation exchange personnel, they do not have much time to spend a year to pass the preparatory study examination and obtain the preparatory diploma. Therefore, it is recommended to promote English education in the Kyiv region while developing Ukrainian language essentials. Students can selfselect the option of choosing Ukrainian or English in the pre-professional course of education. The advantages and disadvantages of Ukrainian as a small language in China are outstanding. Both advantages and disadvantages co-exist. It is also particularly important to emphasize the complementarity of languages between the two countries when it comes to language learning.

8. Improving the quality of Chinese citizens and shaping a new image of Chinese people. The image and quality of nationals are also an important part of the country's image. Individual performance also tends to influence Ukrainian nationals' perception of China's. Therefore, we should improve the quality of nationals, starting from education, and increase the investment and attention to education. In addition, a supervision mechanism for Ukrainian overseas chambers of commerce should be established to ensure that businessmen do business honestly, actively develop public charities in society, promote moral spirit, and improve the quality of the people. This is also an overall reflection of the education level and quality of the Chinese people. In his book National Image Communication, Kun Zhang summarizes some of the

problems that exist in China's foreign communication, the first and foremost of which is the high degree of congruence between China's media system and the political context (Fan, 2014, p. 98). In the fierce competition of international communication, China's foreign communication media still maintains a high degree of consistency with the political context, which makes them somewhat incapable of adapting to the rapidly changing international situation, and sometimes their reports are inevitably biased. The most negative images of China in the minds of Ukrainian nationals are about environmental issues.

Ukrainians are very eager to learn about today's comprehensive and real China, but the channels of understanding are mostly based on the communicator's own starting point, with strong self-needed colour. Therefore, in the rapid development of the Internet information age, we should also strengthen the cooperation between Chinese media and Ukrainian media, focus on building language media for Ukrainian nationals, and improve the rate of news and information originality, debut rate and landing rate.

Secondly, on the basis of cooperation with the Ukrainian media, the future scenario of the construction and development of the Silk Road Economic Belt should be made into a film and other cultural products according to today's national conditions of China, which will be broadcasted by the Ukrainian media of the partner in Ukraine in a timely manner, so that Ukrainian people can understand in time the common development and common benefit of the future of cooperation between China and Ukraine, with a view to achieving the result of people-to-people communication. The media of Ukraine, the partner, will broadcast such cultural products as propaganda films so that the Ukrainian people can learn about the bright future of cooperation between China and Ukraine, which is related to the common development and benefit of the two countries, with a view to realizing the result of people-to-people communication. The interaction between the media of the two sides is also conducive to reducing the stereotypes of the Chinese people towards Ukraine.

Ukraine has a vast land area, rich products, and rich educational resources in the fields of music, painting, aviation and other fields. The strategic location and overall affordable consumption are the advantages of choosing a country to study in. Breaking the traditional perception that Ukraine is backward, poor and rich in beautiful women. Improving the image of the people of the two countries and the kind, honest and enthusiastic folk customs are also one of the ways to improve the understanding of the academic environment between the two countries and promote educational cooperation. In addition, teachers from the two countries should jointly develop international courses based on the actual situation of their own education and advantageous specialties, and continuously update the content of international dynamic courses. Strengthen the external interaction and exchanges between teachers and students, jointly develop international courses based on advantageous and characteristic majors, and formulate reasonable and effective solutions. Improve the international talent training programs of the two countries, realize the sharing of international curriculum education resources, cultivate high-quality international comprehensive innovative talents, truly achieve mutual learning and integration of Chinese and foreign cultures, and better promote international exchanges and cooperation among colleges and universities.

Conclusion for chapter 3

In the third chapter "The implementation of cooperation and academic exchanges between Ukrainian and Chinese universities" the peculiarities of the organization of educational exchange programs for university teachers and students are presented. The chapter distinguishes and characterises the scope and main features of scientific cooperation and exchanges between Ukrainian and Chinese universities as well as ways and suggestions to improve cooperation and academic exchanges between two countries.

It is argued that international exchanges and cooperation among colleges and universities are one of the main ways to promote the internationalization of higher education between countries and regions. The depth and breadth of international exchange and cooperation projects promote the internationalization process of higher

education. The development of higher education in the modern era is gradually becoming internationalized, and many institutions of higher education in Ukraine and China have carried out various forms of international educational and academic exchange and cooperation programs for the internationalization of education, all of which are based on the national conditions of the country, taking into account its own actual development, and formulating strategic goals and training programs for the internationalization of educational and academic cooperation.

In recent years, the exchanges and cooperation projects between Ukraine and China in the field of education have achieved remarkable results. At this stage, the exchanges and cooperation between Ukraine and China in the field of education have indeed risen to a very high level. But essentially there is still a lot of room for improvement. Some of the current exchange and cooperation programs lack continuity and have an average follow-up impact. Secondly, most of the academic exchanges and cooperation between Ukrainian and Chinese universities are at the initial stage of exchanges and have not been carried out at a deeper level. A lot of cooperation and exchanges remain in the form of organizing competitions, lectures, international conferences and forums, etc. These activities are mainly held and exchanged between Ukrainian and Chinese universities. These activities are organized and exchanged mainly to enhance mutual understanding, for the actual development of cooperation areas need to be further cooperation to explore the plan.

The implementation of cooperation and academic exchanges between Ukrainian and China universities also needs to focus on publicizing their achievements and capabilities in scientific and educational innovation activities, so as to better promote the cooperation between the two universities in the field of education to be more systematic and international.

The exchange and cooperation education of international students is an important carrier of a country's high level of education and openness to the outside world. As a special group of students in higher education, universities and colleges should formulate more targeted cultivation goals and education methods in the process of education. Along with the gradual and frequent exchanges between Ukraine and

China in the field of education, more and more Ukrainian students have developed a strong interest in China, and the interaction between teachers and students of the two countries' universities and colleges has become more and more frequent, so that the exchanges and cooperation between the two countries are increasingly developing.

In order to strengthen the interaction and exchange of education between universities of the two countries, in addition to the attraction of culture and education, it is necessary to continue to give full play to the role of government scholarships, to increase the number of exchange students, to create a brand name for educational cooperation, and to enhance the international visibility of institutions of higher education, so as to be able to better carry out the exchange and cooperation programs of international education.

In conclusion, international exchanges and cooperation among universities directly affect the forward pace of the internationalization construction of universities, and at the same time, it is also one of the measurement indexes of the internationalization development level of universities. With the increasingly close exchanges and cooperation between Ukraine and China, the two countries are also constantly strengthening the interaction between teachers, encouraging teachers to actively develop international curriculum systems suitable for the development of both parties in dominant subjects such as engineering and medicine. This not only affects the main direction of future development of education, but also is the main means for colleges and universities to achieve educational power. As the main carrier of internationalized education development, the cultivation of high-level complex innovative talents with international vision, international thinking and international competitiveness is the common pursuit of cooperation and exchange between the two countries.

The materials of this chapter have been highlighted in the following publications: Wang, 2024a, Wang, 2024b, 22024c.

GENERAL CONCLUSIONS

The presented thesis study solved the scientific task of performing a comprehensive analysis of the development and implementation of cooperation and academic exchanges between Ukrainian and Chinese universities at the beginning of the 21st century and identifying ways to improve cooperation and academic exchanges between the two countries. The conducted research made it possible to formulate the following conclusions.

1. The research made it possible to find out that at the beginning of the 21st century, the theory and practice of higher education development involves considering the trends of the international educational space, and internationalization and globalization of education is an urgent problem today. We find confirmation of this in the scientific publications of researchers from various countries of the world, which highlight the results of studying the problems of higher education; the specificity of internationalization, its trends, advantages and disadvantages; the peculiarities of academic mobility and exchanges, their role and meaning for higher education development in general as well as university development in particular; the development of cooperation in educational and scientific sphere; forms and models of international academic cooperation, etc.

A possible explanation of this may be that the globalization of education is an inevitable trend that accompanies the broader process of globalization. It reflects the modernization of education in this new developmental stage, primarily seen in the growing interconnectedness of global education systems, increased interdependence, the worldwide movement of educational resources, and the implementation of educational activities on a global scale. This phenomenon is marked by characteristics such as openness, dynamism, global localization, dominance, and inequality.

The findings of this research suggest that the idea of international educational exchange is primarily evident in four key areas: education serves as a crucial tool for preserving a nation's culture; it possesses normative and stable qualities within a well-established institutional framework; these exchanges play a significant role in

disseminating values; and education, which often targets younger audiences, can foster the younger generation's appreciation, comprehension, and acceptance of diverse cultures, thus enhancing cross-cultural understanding and trust. Additionally, international educational exchanges should be conducted with a mind-set of understanding and inclusivity. In our research, we understand international educational exchanges as an inevitable trend in the evolution of the global educational landscape, with a broad and multifaceted impact encompassing four main areas: the importance of cultural diversity; academic collaboration and research; the significance of interdisciplinary cooperation; and the implications for education reform and policy.

2. According to the aim and objectives of the research in our theses the theoretical basis of cooperation and academic exchanges development has been substantiated: world systems theory (cooperation and academic development is related to the structure and power of the international system, take place in a globalized environment and are influenced by international political, economic and cultural forces); theories of knowledge creation and diffusion (through academic collaboration and knowledge sharing, researchers can gain a broader perspective and knowledge resources, which can lead to new ideas and research results); social capital theory (interpersonal relationships, trust, and cooperation, which can facilitate knowledge sharing, interdisciplinary collaboration, and innovation); cultural theory (understanding and respecting the cultural backgrounds of others and developing crosscultural sensitivity and communication skills are essential to facilitate effective academic cooperation and exchange); social learning theory (collaborating and interacting with other scholars, individuals can acquire new knowledge, perspectives, and skills and contribute to the growth and development of the academic community); the theories of academic internationalization (internationalization improves the quality of teaching and scientific research by facilitating academic exchanges, transnational cooperation and resource sharing); the theory of innovation and evolution (innovation and evolution theory points out that innovation and interdisciplinarity in academic fields can be promoted through academic collaboration and interdisciplinary communication); collaborative learning theory (guidance, encouraging students and teachers to promote knowledge sharing and interaction through cross-border cooperative projects and academic exchanges); social constructionist theory (theoretical basis that emphasizes the process of building shared understanding and co-constructing knowledge through dialogue and exchange).

It is concluded that academic cooperation and exchange between Ukrainian and Chinese universities hold significant value and importance, guided by research methodologies and theoretical foundations. Utilizing appropriate research methods (literature research method, background analysis, qualitative research method, the case study method etc.) offers insights into the processes, influencing factors, and outcomes of such cooperation and exchange. Effective organization and practical support enhance the complementarity of educational resources between Ukraine and China, thereby improving the quality of teaching and learning in both countries, supporting scientific research, and fostering the development and dissemination of knowledge and innovations.

- 3. As a result of our research we determined, analysed and highlighted the peculiarities of cooperation and academic exchanges development in the discourse of Ukrainian-Chinese experience through the prism of:
- social (talent development: the academic exchanges contribute to the development of a skilled workforce by offering students and faculty international experience, thereby enhancing their employability and economic impact; networking: the exchanges establish networks among students, educators, and researchers, fostering long-term professional relationships and collaborations; community engagement: collaborative projects and programs usually include community-based activities, motivating students to interact with local communities and collaboratively address social issues; global citizenship: the exchanges enable participants to cultivate a sense of global citizenship, comprehend global issues, and contribute to international solutions; education equity: collaboration strives to diminish educational disparities and ensure equal access to quality education for all students by sharing resources and expertise);

- economic (resource sharing: the collaboration enables sharing of educational resources, including research facilities, libraries, and technology, which can lower costs and enhance efficiency for both sides; funding opportunities: collaborative projects and exchanges frequently secure funding from both governmental bodies and international organizations, offering financial support for research and development; economic development: promoting innovation and research in the framework of international collaboration contribute to the economic growth of both countries, leading to the creation of new industries and job opportunities; market expansion: collaborative efforts can unlock new markets for educational services and products, benefiting universities and associated industries in both nations; cost efficiency: joint programs and shared resources can result in cost savings in areas such as curriculum development, faculty training, and infrastructure investment);
- cultural (cultural understanding and exchange: the exchanges cultivate a deeper comprehension and appreciation of each other's cultural heritage, traditions, and social norms, thereby promoting mutual respect and cultural sensitivity; language learning: academic exchanges frequently incorporate language programs that enable students and faculty to learn each other's languages, thereby improving communication skills and fostering cultural immersion; cultural events and activities: joint cultural events, festivals, and activities enable students and faculty to experience and celebrate each other's cultural practices and traditions; shared cultural projects: collaborative projects frequently focus on cultural studies, arts, and humanities, promoting the exploration and preservation of cultural heritage through joint research and creative endeavors; intercultural competence: the academic exchanges enhance intercultural competence among participants, providing them with the skills to navigate and succeed in diverse cultural environments; cultural diplomacy: the academic exchanges act as a form of cultural diplomacy, strengthening bilateral relations and fostering goodwill between Ukraine and China);
- legal (bilateral agreements: determine the specificity of cooperation in the
 terms of academic exchanges implementation, joint projects development etc.;
 intellectual property rights: ensuring intellectual property rights of researchers and

universities in joint research projects; accreditation and recognition of degrees and qualification) dimensions.

4. It was found that cooperation and academic exchanges between Ukrainian and Chinese universities are implemented in a wide range of disciplines and fields, from science and technology to humanities, and from theoretical to applied research. The main features of educational exchange programs organization for university teachers and students are as following: accepting foreign students to study at the university; encouraging teachers to participate in academic conferences or study abroad for professional development; organising international academic conferences; developing joint educational programs with foreign universities; striving for foreign funding; developing cooperation programs (international cooperation and training programs, the training program for professionals going to Ukraine, the program for arts and sports in Ukraine, the program for short-term exchanges of experts and scholars going to Ukraine, scholarships for cooperation with the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"., and the Ukrainian Exchange Scholarship Program).

The analysis of scientific cooperation and exchanges between People's Republic of China and Ukraine made it possible to distinguish its specificity: the use of threelevelled system (cooperation and exchanges according to inter-governmental agreements, inter-universities agreements, cooperation and exchanges organised through intermediary companies); the organization of cooperation and exchanges in the fields of environment, ecology, ocean, atmosphere, natural disasters, greenhouse control, nuclear safety, effect. disease resource protection, international communication management in the regional or global scope; the mutual use of largescale and expensive research equipment; the development of interdisciplinary research projects; equal exchange and sharing of cooperation results in a joint and shared manner).

5. It was found that many issues are not resolved. A reasonable approach to tackle them could be to: strengthen a long-term, stable and effective cooperation, expanding mutual benefits and complementarities, broadening the breadth and scope

of academic exchanges; establishing various types of intermediary institutions, involving scholars, social organizations and diplomats, and communicating mutual information on a wide scale; accelerate the process of networking education among universities, between universities and society, and between different countries and regions; improve the foreign affairs management work of universities as one of the main instruments to enhance the school running level, improve the quality of teaching to serve the reform of higher education and the strategy of developing the country through science and education; to improve the educational programs and services which attract talented youth inside and outside the country; to broaden support of cultural and social spheres which form the background for further educational and scientific cooperation.

The prospects for further scientific research include the study of the effectiveness of the involvement of intermediary companies, as well as the development of a larger number of programs aimed at ensuring cooperation and academic exchanges for students, teachers, and scientists in both countries.

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Appendices Appendix A

"The Treaty of Friendship and Cooperation between the People's Republic of China and Ukraine", signed in 2013 and ratified in 2015

Article 1: The Contracting Parties shall, in accordance with the universally recognized norms and principles of international law and on the basis of the principles of mutual respect for sovereignty and territorial integrity, non-aggression, non-interference in each other's internal affairs, equality and mutual benefit, and peaceful coexistence, develop in a long-term and comprehensive manner a strategic partnership of friendship, cooperation and equal trust between the two countries.

Article 2: The contracting parties guarantee that they will not use force or threat of force in dealing with their mutual relations, nor will they use economic and other means of pressure on each other. In accordance with the purposes and principles of the Charter of the United Nations and other generally recognized principles and norms of international law, Use peaceful means to resolve disputes with each other.

Article 3: The Contracting Parties shall respect each other's paths of political, economic, social and cultural development in the light of their national conditions, ensure the long-term stable development of relations between the two countries, implement the agreements reached by the two countries, and continually inject new and concrete elements into the relations between the two countries.

Article 4: China speaks highly of Ukraine's unilateral abandonment of nuclear weapons and its accession to the Treaty on the Non-Proliferation of Nuclear Weapons signed on July 1, 1968 as a non-nuclear-weapon state. The Chinese side reaffirms its unconditional commitment not to use or threaten to use nuclear weapons against Ukraine, which is a non-nuclear-weapon state, in accordance with the Chinese government's statement on providing security guarantees to Ukraine on December 4, 1994.

Article 5: The Ukraine side supports the policy of the Chinese side on issues relating to the safeguarding of the national unity and territorial integrity of the People's Republic of China. The Ukraine side reaffirms its principled position on the question of Taiwan as set out in the political documents signed and adopted by the heads of State of the two countries in the period from 1992 to 2013. The Ukrainian side recognizes that there is only one China in the world, that the Government of the People's Republic of China is the sole legitimate Government representing the whole of China, and that Taiwan is an inalienable part of China. China supports the policy of the Ukrainian side on such issues as safeguarding the national unity and territorial integrity of Ukraine.

Article 6: Neither Contracting Party shall take any action that would jeopardize the sovereignty, security or territorial integrity of the other Contracting Party. No Contracting Party shall permit a third State to utilize its territory to the detriment of the national sovereignty, security or territorial integrity of another Contracting Party. In accordance with its national legislation and the international treaties to which it is a party, neither Contracting Party shall permit the establishment in its territory of any separatist, terrorist and extremist organization or group that undermines the sovereignty, security or territorial integrity of the other Contracting Party, and shall prohibit their activities.

Article 7: In the event of the emergence of a complex situation or the outbreak of a crisis at the international and regional levels which may pose a threat to the peace, sovereignty, unity or territorial integrity of any of the Contracting Parties, the two Contracting Parties shall immediately hold consultations in order to formulate countermeasures.

Article 8: The Parties shall expand their cooperation in the United Nations, its Security Council and its specialized agencies and shall take action to strengthen the leading role of the United Nations in international affairs as the most universal, representative and authoritative international organization. The Contracting Parties will also deepen their cooperation within the framework of other international and regional organizations in which they both participate.

Article 9: The Parties shall consolidate their strategic partnership by utilizing and improving the mechanism of regular meetings at high level and at all levels, and shall exchange views in a timely manner on bilateral relations as well as on major issues of common interest to the Parties.

Article 10: The Contracting Parties shall, on the basis of equality and mutual benefit, expand and deepen cooperation in trade, economy, agriculture, mining, energy, transportation, infrastructure, aerospace, finance, investment, science and technology, communications and other areas of mutual interest. The Parties shall cooperate within the framework of the international financial system, economic organizations and forums. The Parties shall ensure the protection of intellectual property rights, including patents, trademarks, copyrights and related rights, in accordance with their national laws and international treaties to which they are parties.

Article 11: The Contracting Parties actively encourage coordination and cooperation in the fields of culture, education, science, tourism, health care, information, social security, sports, environmental protection and other areas of mutual interest.

Article 12: The Contracting Parties shall, on the basis of previously concluded agreements and accords, engage in military and military-technical cooperation that is not directed against third countries and shall take the necessary measures to consolidate international security and the security of the Contracting Parties.

Article 13: The Parties, in accordance with their national laws and their respective international obligations, shall cooperate on a bilateral and multilateral basis in the fight against terrorism, separatism and extremism, as well as organized crime, illegal migration, trafficking in human beings, illicit trafficking in narcotic drugs, psychotropic substances and their precursors, and illicit trafficking in toxic substances and radioactive materials and weapons, and shall cooperate in combating the proliferation of weapons of mass destruction and their means of delivery, as well as other forms of transnational crime, proliferation of weapons of mass destruction and their means of delivery, as well as other forms of transnational crime, and ensuring the interests of both countries in the field of information security.

Article 14: The Contracting Parties shall, in accordance with their respective national laws, create the necessary conditions to promote the strengthening of friendly exchanges and mutually beneficial cooperation between the provinces, states and friendly cities of the two countries.

Article 15: The Parties shall vigorously promote the expansion of contacts between the personnel of the two countries, governmental and civil society organizations, trade unions, the business community, social groups, educational, cultural and scientific research institutions, the media, youth and sports organizations. The Contracting Parties shall take the necessary measures to create more favourable conditions for the movement of citizens between the two sides in order to enhance mutual understanding and friendship between the peoples of the two countries.

Article 16: The contracting parties will cooperate in promoting the realization of fundamental freedoms and human rights in accordance with their respective international obligations and national laws. The two contracting parties will, in accordance with their respective international obligations and their respective laws, take effective measures to protect the safety and legitimate rights and interests of legal persons and natural persons of one contracting party in the territory of the other contracting party, and provide mutual civil and criminal judicial assistance.

Article 17: For the purpose of implementing this Treaty, the Contracting Parties shall actively promote the conclusion of relevant agreements in specific areas of mutual interest.

Article 18: This Treaty shall not affect the rights and obligations of the Contracting Parties under other international treaties to which they are parties, nor shall it be directed against third States.

Article 19: This Treaty may be amended and supplemented by separate protocols where the Parties so agree. The relevant protocols shall form an integral part of this Treaty and shall enter into force in accordance with the procedure set forth in article 21 of the Treaty.

Article 20: Any dispute arising out of the interpretation or application of this Treaty will be settled by the Parties through bilateral negotiations and consultations.

Article 21: This Treaty shall enter into force on the date of the exchange of instruments of ratification, subject to ratification by the Parties in accordance with their domestic procedures.

This appendix was developed by the author based on the source: The Stare Council of the People's Republic of China. (2015). The Treaty of Friendship and Cooperation between the People's Republic of China and Ukraine. Retrieved from: https://www.gov.cn/xinwen/2015-02/27/content_2822842.htm

Appendix B

"Joint Statement between the People's Republic of China and Ukraine on the Establishment and Development of Strategic Partnership" signed in Kyiv in 2011

Article 1. The two sides are willing to abide by the principles of the Charter of the United Nations and the Principles and universally recognized norms of international law, reaffirming to abide by the "Joint Communiqué on the Establishment of Diplomatic Relations between the People's Republic of China and Ukraine" signed on January 4, 1992, the "Joint Communiqué between the People's Republic of China and Ukraine" signed on October 31, 1992, the September 1994 The "Joint Statement between the People's Republic of China and Ukraine" signed on the 6th, the "Statement of the People's Republic of China and Ukraine on the Development and Deepening of Friendly Cooperative Relations" signed on December 4, 1995, and the "Chinese People's Republic of China" signed on July 21, 2001 The Joint Statement between the Republic and Ukraine on Strengthening Comprehensive Friendly Cooperative Relations in the 21st Century, the Joint Statement between the People's Republic of China and Ukraine signed on November 18, 2002, and the "People's Republic of China and Ukraine" signed on September 2, 2010 Ukraine's Joint Statement on Comprehensively Improving the Level of Sino-Ukrainian Friendly Cooperative Relations and the basic principles of bilateral relations established in other bilateral documents to establish and comprehensively develop a strategic partnership of friendship, cooperation, equality and trust between the two countries for a long time. The two sides will continue to consolidate political mutual trust, strengthen cooperation in promising areas, seek new opportunities to enhance mutually beneficial exchanges and expand humanistic exchanges. This will promote the common development and prosperity of the two countries and serve the common interests of their peoples.

Article 2: The two sides reaffirm their mutual respect for the path of political, economic, social and cultural development chosen by the other side to ensure the long-term stable development of relations between the two countries.

In article 4, the two sides expressed their firm support for each other on issues related to State sovereignty, unity and territorial integrity, which is an important element of the strategic partnership between China and Ukraine.

Article 11: The Parties agree that the Sino-Ukrainian Cooperation Council is the main mechanism for coordinating Sino-Ukrainian cooperation in various fields and for the effective implementation of the relevant agreements reached and signed by the Parties. The Parties highly value the results of the inaugural meeting of the Commission, held in Kyiv on April 20, 2011, and express their readiness to continue their efforts to ensure the smooth operation of the Commission's work.

Article 12: The two sides agree that cooperation in the fields of trade and economy, investment, science and technology, space, aviation, agriculture and infrastructure is an important direction for the development of bilateral relations. The two sides will vigorously promote exchanges and cooperation in the fields of culture, education, health, tourism and sports. The Parties will create all favorable conditions for further deepening the above-mentioned cooperation. The Parties will protect intellectual property rights in accordance with their national laws and international treaties to which they are parties. The Parties will cooperate within international financial institutions, economic organizations and forums.

Article 13: The parties agree that the implementation of large-scale cooperation projects marks a new stage in practical cooperation. The Chinese side is ready to work with the Ukrainian side to actively promote cooperation between enterprises of the two sides on a series of infrastructure construction projects and other major projects in the Kyiv region, within the framework of the Agreement on the Development of Cooperation in the Field of Infrastructure Construction between the Governments of the two countries and on the basis of the principles of equality, mutual benefit and commercial operation. The parties are ready to actively support mutual investment by the business communities of the two countries and to create favorable conditions in their countries for Chinese and Ukrainian investors in order to attract mutual investment.

This appendix was developed by the author based on the source: The Central People's Government of the People's Republic of China. (2011). Joint Statement between the People's Republic of China and Ukraine on the Establishment and Development of Strategic Partnership. Retrieved from: https://www.gov.cn/ldhd/2011-06/20/content_1888628.htm

Appendix CThe National Scholarship Programs

#	Title of project	Dispatch channels	Assignment category	Study abroad country/ region	Declaration time	Acceptance unit	Review time	Admission time
1	Foreign cooperatio n projects	Promotion of international cooperative training programs with Russia, Ukraine and Belarus	Visiting Scholars, Doctoral Students, Joint Doctoral Students, Master's Students, Joint Master's Students, Undergraduate Placement Students	Russia, Ukraine, Belarus	March 1-10 (first batch) September 1-10 (second batch)	China Scholarship Council (CSC) acceptance unit and related universities and colleges	March-April (first batch) September- October (second batch)	May (first batch) December (second batch)
2	Foreign cooperatio n projects	Training Program for Professionals in Russia, Ukraine and Belarus	Master students, doctoral students	Russia, Ukraine, Belarus	March 10-31 (first batch) October 8-18 (second batch)	CSC , Education Section of Embassies and Consulates Abroad	April-May (first batch) November- December (second batch)	June (first batch) December (second batch)
3	Foreign cooperatio n projects	Russian, Ukrainian and Belarusian art and sports projects	Master student, visiting scholar	Russia, Ukraine, Belarus	March 10-31	CSC , Education Section of Embassies and Consulates Abroad	April-May	June
4	Foreign cooperatio n projects	Short-term exchange program of experts and scholars to Russia, Ukraine and Belarus	A visiting scholar	Russia, Ukraine, Belarus	March 1-10 (first batch) September 1-10 (second batch)	China Scholarship Council (CSC) acceptance unit and related universities and colleges	June (first batch) December (second batch)	May (first batch) November (second batch)

5	Foreign	Scholarships for	Master's degree	Ukraine	March 10-31	CSC ,	April-May	June
	cooperatio	cooperation with the	students, doctoral			Education		
	n projects	National Technical	students, joint doctoral			Section of		
		University of Ukraine	students, visiting			Embassies and		
			scholars,			Consulates		
						Abroad		
6	Exchange	Ukraine Exchange	Undergraduate students,	Ukraine	Subject to	Project	March	August-
	scholarship	Scholarship	master students,		selection notice	implementatio	(submit external	September
	programs		doctoral students			n unit	contact	
	with						materials)	
	relevant							
	countries							

This appendix was developed by the author based on the source: China Scholarship Council, 2024.

Appendix D

Appendix D-1



МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ ВІННИЦЬКИЙ ДЕРЖАВНИЙ ПЕДАГОГІЧНИЙ УНІВЕРСИТЕТ

імені Михайла Коцюбинського

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25.06.2024pt 06 /23

на №

Довідка

про впровадження результатів дисертаційного дослідження Ван Їсюань на тему «Розвиток співпраці та академічних обмінів між університетами України та Китаю (початок XXI століття)» (спеціальність 011 Освітні, педагогічні науки)

Кафедра педагогіки, професійної освіти та управління освітніми закладами Вінницького державного педагогічного університету імені Михайла Коцюбинського упродовж 2023-2024 рр. апробовувала та впроваджувала у роботу матеріали й основні положення, викладені у дисертації Ван Ісюань на тему «Розвиток співпраці та академічних обмінів між університетами України та Китаю (початок XXI століття)». Зокрема, положення, викладені на сторінках писертаційної роботи, використано під час викладання навчальної дисципліни Актуальні проблеми теорії та історії педагогічної науки» (тема 1: Розвиток і практичні проблеми педагогіки), що є обов'язковим компонентом освітньоннукової програми «Освітні, педагогічні науки» третього освітньо-наукового рівня вищої освіти.

Аспірантка Ван Їсюань підготувала та презентувала доповідь на тему Особливості організації наукової співпраці у контексті вищої освіти України та Китайської Народної республіки», під час якої ознайомила науково-педагогічних працівників, аспірантів та магістрантів з прогресивними ідеями та кращими зразками наукової співпраці, досвіду українських та китайських університетів шодо її започаткування і реалізації.

Результати апробації матеріалів дисертації Ван Їсюань свідчать, що песертаційне дослідження виконано на високому науковому рівні, відрізняється пуковою новизною та практичною значущістю, що дає підстави для подальшого використання його результатів у сцетсьі вищої освіти України.

Проректор з наукової р

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Appendix D-2



МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ

ЛЬВІВСЬКИЙ НАЦІОНАЛЬНИЙ УНІВЕРСИТЕТ ВЕТЕРИНАРНОЇ МЕДИЦИНИ ТА БІОТЕХНОЛОГІЙ імені С.З. ГЖИЦЬКОГО (ЛНУВМБ імені С.З.Гжицького)

вул. Пекарська 50, м. Львів-10, 79010, тел. 260-28-89; факс: 275-67-95 E-mail: admin@lvet.edu.ua, www.lvet.edu.ua код СДРПОУ 00492990

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ДОВІДКА

про впровадження результатів дисертаційного дослідження Ван Їсюань з теми «Розвиток співпраці та академічних обмінів між університетами України та Китаю (початок XXI століття)» (спеціальність 011 Освітні, педагогічні науки)

Упродовж 2023—2024 н.р. матеріали та основні положення дисертаційного дослідження Ван Ісюань на тему «Розвиток співпраці та академічних обмінів між університетами України та Китаю (початок XXI століття)» пройшли апробацію і були впроваджені у роботі кафедри філософії та педагогіки факультету громадського розвитку та здоров'я Львівського національного університету ветеринарної медицини та біотехнологій імені С. З. Іжицького. Працівники кафедри та магістранти мали змогу обговорити особливості розвитку співпраці й академічних обмінів між двома країнами, зокрема їхню соціальну, економічну, культурну специфіку. Матеріали наукових студій використано під час розробки змістового наповнення навчальної дисципліни «Порівняльна педагогіка» (тема 1: Порівняльна педагогіка: світова і європейська освітня інтеграція), що є обов'язковою складовою освітньо-професійної програми «Освітні, педагогічні науки» другого (магістерського) рівня вищої освіти.

Під час проведеного наукового семінару (14.05.2024 р.) аспірантка виступила з доповіддю «Організація освітніх обмінів для викладачів і студентів китайських та українських університетів». Аспірантка взяла участь у науковій дискусії щодо перспектив удосконалення співпраці між університетами України та Китайської Народної Республіки. Під час онлайн-консультацій магістранти, які навчаються за магістерською програмою «Освітні, педагогічні науки», мали змогу ознайомитися з організаційною та методологічною специфікою наукових досліджень у галузі порівняльної педагогіки.

Результати апробації та впровадження матеріалів дисертаційного дослідження Ван Ісюань на тему «Розвиток співпраці та академічних обмінів між університетами України та Китаю (початок XXI століття)» обговорено та схвалено на засіданні кафедри філософії та педагогіки факультету громадського розвитку та здоров'я Львівського національного університету ветеринарної медилини та біотехнологій імені С. З. Гжицького (протокол №8 від 26.06.2024 р.) рекоменаювано їх подальше використання з метою удосконалення міжнародної діяльності сучасних університетів.

B.O.PEKTOPA

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Appendix D-3



МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ ВОЛИНСЬКИЙ НАЦІОНАЛЬНИЙ УНІВЕРСИТЕТ ІМЕНІ ЛЕСІ УКРАЇНКИ

просп. Волі, 13, м. Луцьк, 43025, тел. (0332) 24-10-07, (0332) 72-01-23 ел. пошта: post@vnu.edu.ua, web: http://www.vnu.edu.ua, код €ДРПОУ 02125102

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01.04.2024	No D3 24	104/1835	на №	від

Довідка

про впровадження результатів дисертаційного дослідження Ван Їсюань на тему «Розвиток співпраці та академічних обмінів між університетами України та Китаю (початок XXI століття)» (спеціальність 011 Освітні, педагогічні науки)

Матеріали та основні положення дисертації Ван Ісюань на тему «Розвиток співпраці та академічних обмінів між університетами України та Китаю (початок XXI століття)», що підготовлена за спеціальністю 011 Освітні, педагогічні науки, апробовано у роботі кафедри теорії і методики початкової освіти Волинського національного університету імені Лесі Українки упродовж 2023-2024 рр. Матеріали, висвітлені у дисертаційній роботі, її основні положення та висновки, сформульовані авторкою, використано з метою удосконалення освітнього компоненту «Педагогічна компаративістика» освітньої програми «Початкова освіта» другого (магістерського) рівня вищої освіти (тема 3: Соціально-політичні, соціально-економічні, культурні та освітні чинники розвитку фахової передвищої й вищої освіти в суспільстві знань; тема 5: Наукова та інноваційні діяльність ЗВО у світі, ЄС та в Україні: тенденції розвитку).

Презентація Ван Їсюань на тему «Україна – Китай: перспективні напрями розвитку співпраці та академічних обмінів майбутніх педагогів початкової школи» під час наукового семінару кафедри теорії і методики початкової освіти дає підстави для виокремлення можливостей щодо розвитку освітньо-наукової співпраці між українськими та китайськими університетами, ознайомлення науково-педагогічних працівників, аспірантів та магістрантів з особливостями побудови спільних освітньо-професійних програм, організації навчання іноземних студентів тощо. Аспірантка ознайомила учасників наукового семінару зі специфікою проведення компаративного дослідження, його перевагами та викликами.

Результати апробації матеріалів дисертаційної роботи Ван Ісюань засвідчують її актуальність, теоретичне і практичне значення для розвитку вищої освіти на початку XXI століття. Високий рівень теоретичної та практичної підготовки здобувачки, отримані результати наукової розвідки слугують підставою для їх подальшого використання з метою використання продуктивного китайського та українського досвіду у роботі закладів вищої освіти обох країн. Результати апробації та впровадження матеріалів дисертаційного дослідження обговорено та схвалено на засіданні кафедри теорії і методики початкової освіти Волинського національного університету імені Лесі Українки (протокол №15 від 12 червня 2024 р.).

Проректор з/наживо-педату ічної роботи та віжки радирії гіній граці

Волинской напринатирного університету

Раїса ПРІМА 0667008344

імені Ле

проф. Людмила ЄЛІСЄЄВА

Appendix D-4



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МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ НАЦІОНАЛЬНИЙ УНІВЕРСИТЕТ «ЛЬВІВСЬКА ПОЛІТЕХНІКА»

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82.08.2029_{№ 67-01-1422}

Довідка

про впровадження результатів дисертаційного дослідження Ван Їсюань на тему «Розвиток співпраці та академічних обмінів між університетами України та Китаю (початок XXI століття)» (спеціальність 011 Освітні, педагогічні науки)

Упродовж 2023-2024 н.р. основні положення та матеріали дисертації Ван Їсюань пройшли апробацію та впровадження у роботі кафедри педагогіки та інноваційної освіти Навчально-наукового інституту права, психології та інноваційної освіти, зокрема у процесі викладання навчальної дисципліни «Інтернаціоналізація освіти: напрями, тенденції, перспективи», що є обов'язковим компонентом освітньо-наукової програми «Освітні, педагогічні науки» третього (освітньо-наукового) рівня вищої освіти, підготовка за якою здійснюється у Національному університеті «Львівська політехніка». Основні теоретичні положення про особливості розвитку та реалізації співпраці й академічних обмінів між китайськими та українськими університетами використані у процесі удосконалення лекційного матеріалу (тема 2: Стратегія інтернаціоналізації вищої освіти: основні напрями; тема 6: Академічна мобільність).

Аспірантка брала участь у наукових семінарах і вебінарах кафедри педагогіки та інноваційної освіти, під час яких виступала з доповідями на тему «Співпраця та академічні обміни викладачів і студентів як науково-педагогічна проблема», «Особливості розвитку співпраці та академічних обмінів в українсько-китайському дискурсі», ознайомила професорсько-викладацький склад та аспірантів кафедри з основними результатами дисертаційного дослідження, надавала консультації щодо можливостей впровадження китайського досвіду у процесі розробки програм академічних обмінів.

Позитивно оцінюючи напрацювання аспірантки Ван Ісюань, варто підкреслити, що результати дисертаційного дослідження мають важливе значення для удосконалення міжнародної діяльності сучасних університетів, а також розробки науково-методологічних та науково-методичних рекомендацій для удосконалення співпраці й академічних обмінів між університетами різних країн.

Результати апробації та впровадження матеріалів дисертаційного дослідження Ван Ісюань на тему «Розвиток співпраці та академічних обмінів між університетами України та Китаю (початок XXI століт по вогото вено та схвалено на засіданні кафедри педагогіки та інноваційної освіти Наводпритоції корото інституту права, психології та інноваційної освіти Національного університоку «Львівська політехніка» (протокол № 13 від 28.06, 2024 р.), а також рекомендовано воздірда путого практичного використання.

Проректор

з науково-педагогічно 1000

Олег ДАВИДЧАК

идавництво Львівської політехніки. Наклад 5000. Зам. 220190. 2022.

Appendix E List of authors publications

Publications in which the main scientific results of the thesis are published

Collective monographs

- 1. Wang, Y. (2023a). Research on Economic, Cultural and Academic Cooperation Between Ukraine and China in the Context of Internationalization of Education. In *Modern Conditions of Development of Science, Education and Production in the World 2023. Monograph 1.* (pp. 61-69). Nova Dubnica, Slovak Republic: Publishing House NES Nová Dubnica s.r.o.
- 2. Wang, Y. (2023b). Research on the Theoretical Basis of the Development of Educational Cooperation and Academic Exchanges Between Ukraine and China. In *Development of Scientific and Educational System: European Vector* 2023. *Monograph 1.* (pp. 30-38). Nova Dubnica, Slovak Republic: Publishing House NES Nová Dubnica s.r.o.

Articles in scientific editions included on the date of publication in the list of professional scientific editions of Ukraine

- 3. Mukan, N., & Wang, Y. (2023a). Cooperation and academic exchanges between Ukrainian and Chinese universities: the main features. Педагогічні науки: теорія, історія, інноваційні технології, 8-9(132-133), 146-155.
- 4. Mukan, N., & Wang, Y. (2023b). Cooperation and academic exchanges between Ukrainian and Chinese universities: the methodological specificity of research. Педагогічні науки: теорія, історія, інноваційні технології, 10(134), 201-209.
- 5. Wang, Ү. (2024а). Особливості наукової співпраці та обмінів між Україною та Китайською Народною Республікою. *Порівняльна професійна педагогіка, 14*(1), 155-161.
- 12. Wang, Y. (2024b). The development of cooperation and academic exchanges: suggestions for improvement of Sino-Ukrainian experience. *Академічні візії*, 35. Retrieved from: https://academy-vision.org/index.php/av/article/view/1385

Publications, which certify the approval of the thesis materials

- 6. Wang, Y. (2023c). Research on educational cooperation and academic exchange trends between Ukrainian and Chinese universities. In *Modern scientific potential: Materials of the IV International research and practical internet conference.* (pp. 10-12). Zdar nad Sazavou, Check Republic: DEL a.s.
- 7. Wang, Y. (2023d). Research on international cooperation and academic mobility between Ukrainian and Chinese universities. In Професійний розвиток педагога в умовах інтеграції до європейського освітнього простору: міжнародна академічна та професійна / професійно педагогічна мобільність: матеріали ІІ Міжнародної науково-практичної конференції. (рр. 91-94). Львів: Національний університет «Львівська політехніка».
- 8. Wang, Y. (2023e). Research on the legal basis for the development of educational cooperation and academic exchanges between Ukraine and China. In *World science: problems, prospects, innovations: Materials of the IV International research and practical internet conference* (pp. 19-21). Zdar nad Sazavou, Check Republic: DEL a.s.
- 9. Wang, Y. (2023f). The development of cooperation and academic exchanges between Ukrainian and Chinese universities (the beginning of the XXIst century). In *Управління в освіті: матеріали XI Міжнародної науково-практичної конференції.* (pp. 65-68). Львів: Національний університет «Львівська політехніка».
- 10. Wang, Y. (2024c). The organization of educational exchange programs between Ukrainian and Chinese universities. *Актуальні проблеми професійної педагогіки та освіти: досвід, новації, перспективи: збірник матеріалів міжнародної науково-практичної конференції* (м. Львів, 25.04.2024). (с. 630-632). Львів: Національний університет «Львівська політехніка».

Information on the approval of the results of the thesis research

1. The IV International research and practical internet conference "Modern scientific potential". Zdar nad Sazavou, Check Republic, 30 May, 2023. Presentation: Research on

educational cooperation and academic exchange trends between Ukrainian and Chinese universities.

- 2. II Міжнародна науково-практична конференція «Професійний розвиток педагога в умовах інтеграції до європейського освітнього простору: міжнародна академічна та професійна / професійно-педагогічна мобільність», Lviv, Ukraine, 21 September, 2023. Presentation: Research on international cooperation and academic mobility between Ukrainian and Chinese universities.
- 3. The IV International research and practical internet conference "World science: problems, prospects, innovations", 20 October, 2024. Presentation: Research on the legal basis for the development of educational cooperation and academic exchanges between Ukraine and China.
- 4. XI Міжнародна науково-практична конференція «Управління в освіті», Lviv, Ukraine, 27 April, 2023. Presentation: The development of cooperation and academic exchanges between Ukrainian and Chinese universities (the beginning of the XXIst century).
- 5. Міжнародна науково-практична конференція «Актуальні проблеми професійної педагогіки та освіти: досвід, новації, перспективи», Lviv, Ukraine, 25 April, 2024. Presentation: The organization of educational exchange programs between Ukrainian and Chinese universities.