



DOI: 10.54919/physics/55.2024.175y11

Cooperation in the field of education between China and Kyrgyzstan within the framework of the “One Belt, One Road” initiative

Changning Wang

Kyrgyz National University named after Jusup Balasagyn
720033, 547 Frunze Str., Bishkek, Kyrgyz Republic

Gulmira Karabalaeva*

Kyrgyz National University named after Jusup Balasagyn
720033, 547 Frunze Str., Bishkek, Kyrgyz Republic

Ruixin Zhao

Henan University
475001, 85 Minglun Str., Kaifeng, China

Xianfeng Zhou

Kyrgyz National University named after Jusup Balasagyn
720033, 547 Frunze Str., Bishkek, Kyrgyz Republic

Qiang Ding

Kyrgyz National University named after Jusup Balasagyn
720033, 547 Frunze Str., Bishkek, Kyrgyz Republic

Abstract

Relevance. The research topic related to cooperation between China and Kyrgyzstan in the field of education is relevant, since the exchange of knowledge, experience, and technology through educational programmes and projects can contribute to the development of the innovative potential of Kyrgyzstan and the creation of new opportunities for economic growth. Such cooperation provides Kyrgyz students, teachers, and scientists with the opportunity to receive high-quality education and expand their knowledge and skills.

Purpose. The purpose of this study is to analyse and assess the current state and potential of cooperation between China and Kyrgyzstan in the field of education within the framework of the “One Belt, One Road” initiative.

Methodology. Among the methods used are the analytical, statistical, functional, system analysis, deduction, synthesis, and comparison methods.

Results. In the course of the study, the existing educational programmes and projects implemented between China and Kyrgyzstan within the framework of the initiative were analysed. Various forms of cooperation are considered, such as exchange of students and teachers, joint research, and development of educational courses and programmes. The results and achievements of cooperation in the field of education between China and Kyrgyzstan are evaluated, which includes an analysis of successes in the field of academic mobility, scientific cooperation, joint research projects and developments.

Suggested Citation:

Wang C, Karabalaeva G, Zhao R, Zhou X, Ding Q. Cooperation in the field of education between China and Kyrgyzstan within the framework of the “One Belt, One Road” initiative. *Sci Herald Uzhhorod Univ Ser Phys.* 2024;(55):1751-1760. DOI: 10.54919/physics/55.2024.175y11

*Corresponding author



Copyright © The Author(s). This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (<https://creativecommons.org/licenses/by/4.0/>)

Conclusions. The influence of cooperation in education on the development of human capital in Kyrgyzstan is determined. The challenges and problems that may affect the effectiveness and efficiency of their interaction are identified, including recommendations for their solution. The practical value consists in using the identified results and solving issues related to improving the quality of education in Kyrgyzstan in order to bring this process to a new level.

Keywords: exchange of students and scientists; human capital; cultural exchange; scientific research; educational programmes; Kyrgyzstan; China.

Introduction

Cooperation in the field of education between China and Kyrgyzstan within the framework of the “One Belt, One Road” initiative is an important and relevant topic. This initiative, proposed by China, is aimed at expanding economic and cultural cooperation with the countries of Eurasia and building cross-border trade routes. It provides opportunities for the development of education and knowledge exchange between China and Kyrgyzstan. One of the key aspects of cooperation in the field of education is the exchange of students and teachers. Students from Kyrgyzstan can study at Chinese universities, gaining access to high-quality education and developing their professional skills. Such an exchange contributes to strengthening cultural understanding between students of the two countries, expanding their horizons and developing intercultural competencies.

In addition, cooperation in education between China and Kyrgyzstan also includes research and development of joint projects. Scientists and researchers from both countries can collaborate in areas such as science, technology, innovation, and ecology. This allows combining the intellectual resources of both countries and attracting new ideas and perspectives in solving common global problems. Studying at Chinese universities allows students from Kyrgyzstan to receive a high-quality education and master advanced knowledge and technologies. This affects their professional growth and contributes to the development of the national economy and the innovative potential of the country.

However, cooperation in the field of education between China and Kyrgyzstan also faces certain challenges and problems. Some of them include language barriers, differences in educational systems and cultural characteristics. There is a need to develop adapted programmes and strategies that would consider these factors and promote effective cooperation. In general, cooperation in the field of education between China and Kyrgyzstan within the framework of the “One Belt, One Road” initiative provides significant opportunities for the development of human capital, knowledge and cultural exchange. By analysing the achievements, challenges and prospects of this cooperation, it is possible to develop recommendations and strategies for its strengthening and development, leading to mutual benefit and cooperation between the two countries.

B. Amankulov claims that within the framework of the “One Belt, One Road” initiative, China, Kyrgyzstan and other Central Asian countries are establishing extensive cooperation in various fields, including science, education, culture, healthcare, etc. [1]. The main goal of this cooperation is to strengthen relations between peoples and create a solid foundation for the implementation of the “One Belt, One Road” initiative. The Chinese government annually provides municipal scholarships to these

countries, and at the same time, local Chinese authorities organise special Silk Road scholarships to support education.

According to R. U. Islanova, the “One Belt, One Road” initiative is a large-scale geopolitical, cultural, and humanitarian project covering the directions to the East, North, West and South [2]. The successful implementation of all the tasks set promises to bring enormous benefits to the three billion people living in the countries participating in this initiative, regardless of their field of activity and profession. This initiative contributes to the strengthening of cooperation and interaction, and stimulates economic growth and social development.

According to O. K. Alimardonov, the “One Belt, One Road” initiative stimulates humanitarian exchange between China and Kyrgyzstan, while strengthening political mutual trust, developing trade and economic cooperation, and promoting cultural understanding between people [3]. These aspects play an important role in promoting this initiative and embodying the concept of a community with a single destiny.

J. R. Baltabaev suggests that cooperation in the field of education between China and Kyrgyzstan can bring economic benefits to both countries [4]. The exchange of students, scientific research and academic resources can contribute to the development of educational institutions, improve the quality of education and create innovative solutions. This, in turn, can lead to economic growth and strengthen the position of both countries in the international arena.

According to J. O. Omurova, cooperation in the field of education between China and Central Asian countries within the framework of the “One Belt, One Road” initiative has the potential to strengthen political and diplomatic relations between these countries and increase their influence in the region [5]. This cooperation is a platform for mutual understanding and trust based on the exchange of knowledge and cultural ties. First of all, cooperation in the field of education can help alleviate political and diplomatic tensions between countries.

It is also worth noting that cooperation in the field of education can stimulate the joint solution of common problems and challenges. Education is a key tool for development and overcoming social, economic, and environmental problems. The provision of educational opportunities and the exchange of knowledge between China and Kyrgyzstan contributes to the development of innovative solutions, joint research, and the development of an expert base to address common challenges such as sustainable development, climate change, and poverty reduction.

The purpose of the study is to identify the advantages and potential problems associated with the “One Belt, One Road” initiative and determine the effectiveness and efficiency of cooperation in the field of education between

China and Kyrgyzstan. Achieving the set goal of the study would allow understanding the positive effects of cooperation in the field of education between China and Kyrgyzstan, and offer specific recommendations and strategies for its further development and improvement, which will ultimately benefit both countries and participants of this initiative.

Materials and Methods

The study of topical issues of cooperation between China and Kyrgyzstan was carried out using methods that reveal the content of the object. With the help of the analytical method, the current programmes and initiatives of cooperation in education, their goals, structure, advantages, and problems were investigated. This method facilitated an understanding of the causes and consequences of cooperation and identified the main challenges and problems faced by the participants of cooperation in the field of education. The statistical method was used to collect quantitative data. The data related to educational programmes, student and teacher exchanges, financial investments, and other indicators were analysed. This method helped identify trends, establish connections, and evaluate the effectiveness of cooperation in the field of education. The functional method allowed investigating the functions and roles that various aspects of cooperation in the field of education perform. It was determined what specific tasks and functions are carried out through this cooperation, what advantages and benefits it brings for both countries and how it fits into the broader context of the "One Belt, One Road" initiative. The system analysis allowed considering cooperation in the field of education as a complex system consisting of various elements and interactions. The structure of the system was investigated, the key elements were identified, and the interrelationships and the influence of various factors on cooperation were analysed. This method helped understand the dynamics and complexities of cooperation and identify the most effective development strategies. Using the method of deduction, it was possible to draw logical conclusions based on generalised principles and patterns. This method revealed hidden connections and established causal relationships between various aspects of cooperation between China and Kyrgyzstan. The synthesis allowed combining disparate fragments of information and building them into a coherent picture in order to get a more complete and generalised idea of cooperation in the field of education between China and Kyrgyzstan. The comparison was used to investigate educational programmes, education quality indicators, investments, and other parameters with similar initiatives comparing them. This method allowed understanding the strengths and weaknesses of cooperation and identified best practices for its improvement.

The study was conducted with the disclosure of some aspects, including theoretical and practical components. The theoretical aspect includes the study of the historical, pedagogical, conceptual, and theoretical foundations of the "One Belt, One Road" initiative. The main principles and objectives of this initiative were investigated, and its role in the development of cooperation in education between China and Kyrgyzstan. Another aspect of the study was aimed at analysing and evaluating real practices and the

results of their cooperation. Based on the results obtained, ways to solve specific problems in the effectiveness of cooperation between China and Kyrgyzstan within the framework of the initiative that will contribute to the development of education were considered. As a result, these actions were applied to consider the feasibility of the "One Belt, One Road" initiative, for the successful development of education and Kyrgyzstan as a whole.

Results and Discussion

Relations between China and Kyrgyzstan in the educational sphere

Nowadays, the economic development strategy that Chinese President Xi Jinping initiated in 2013 under the name "One Belt, One Road" is receiving increasing recognition and attention. At first glance, this idea might seem to be just one of many programmes launched by China. However, in fact, it unites various fields such as economics, culture, medicine, education, tourism, sports, archaeology, etc., creating a new model of cooperation between countries. The "One Belt, One Road" initiative is inspired by the historical Silk Road, which at one time served as the basis for expanding trade and cultural ties between different regions. In the context of modernity, this model encourages the development of innovative tools that help attract potential trading partners and ensure the transportation of goods from China through Central Asia and further to the West. An important aspect of this strategy is its multidimensional approach. It unites various fields, including economics, culture, and education. Within the framework of the "One Belt, One Road" initiative, cooperation in the field of education is developing between China and other countries, including Kyrgyzstan. This promotes the exchange of knowledge, experience and best practices in the educational field [6].

Educational ties and interactions between China and Kyrgyzstan have strong and long-term historical foundations covering a significant period of time. Both states are located in close proximity to each other and have similar cultural and historical traditions, which contribute to the development of educational ties between them. Already in ancient times, China and the territories that are now part of Kyrgyzstan maintained active trade, cultural and educational contacts. As part of the Silk Road trade, these regions have become points of exchange of knowledge, experience, and educational practices. Chinese civilisation has made a significant impact on the culture and education of Kyrgyzstan, bringing new ideas, knowledge and techniques [7].

In the modern era, cooperation in the field of education between China and Kyrgyzstan continues to strengthen. Both countries are actively developing academic and cultural programmes, student exchanges, and scientific research. China provides scholarships and grants for Kyrgyz students, which allows them to get a high-quality education in China. In addition, joint projects and initiatives aimed at the development of the educational sphere in both countries are being organised [8]. This cooperation in the field of education between China and Kyrgyzstan may be of strategic importance. It promotes the exchange of knowledge and experience, strengthens friendly ties between peoples, and promotes the improvement of the quality of education and the

development of human capital in both countries. In addition, it also contributes to the strengthening of political and economic relations between China and Kyrgyzstan and contributes to their overall progress and well-being.

Exchange of students and scientists between China and Kyrgyzstan

Cooperation between China and Kyrgyzstan in the field of education within the framework of the “One Belt, One Road” initiative covers several key areas that contribute to the development of educational ties and strengthen cooperation between the two countries. The main areas include the exchange of students and scientists, the development of academic ties, support for educational projects, advanced training and vocational training, cultural exchange and language practice.

The “One Belt, One Road” initiative in the field of education stimulates an active exchange of students and scientists between China and Kyrgyzstan. This area of cooperation provides unique opportunities for students and scientists of both countries to get acquainted with different cultures, education systems, and educational processes. Students have the opportunity to study at prestigious educational institutions in China and Kyrgyzstan, which allows them to expand their knowledge and skills, and develop intercultural competencies [9]. They can attend lectures, seminars, participate in practical classes and research projects, and interact with international students and teachers.

The process of exchange of students and scientists between China and Kyrgyzstan in the field of education within the framework of the “One Belt, One Road” initiative is carried out through the cooperation of a number of scientific institutions. For example, Kyrgyz National University named after Jusup Balasagyn (KNU) cooperates with a number of Chinese universities, such as Peking University and Xian Jiaotong University. As part of the exchange of students and scientists, students enrol in Chinese universities for various study programmes, and scientists take part in joint research projects. The Kyrgyz-Chinese Institute at KNU was established jointly with Chinese partners and offers educational programmes in the field of engineering and technology. Students from Kyrgyzstan receive education and spend a semester or

academic year in China, participating in an exchange programme. They study various engineering and technical disciplines, gain practical experience and knowledge in advanced areas of technology, and immerse themselves in Chinese culture and communicate with local students [10].

There are Confucius Institutes in various cities of Kyrgyzstan that offer Chinese language and culture courses for students and the public. There students can learn Chinese, get acquainted with Chinese culture, and get training to participate in exchange programmes. In 2007, as a result of a partnership between Bishkek Humanities University and Xinjiang University, the first Confucius Institute was founded in Kyrgyzstan. Since then, more than 50 different events related to the study of Chinese language and culture have been held every year on the platform of the Confucius Institute. These events are important in establishing personal ties, strengthening mutual understanding and friendship between peoples, as well as in developing cooperation between China and Kyrgyzstan. There is also such an institute at Osh State University (OSU), where competitions were held aimed at expanding participants' knowledge of China's regional studies and understanding of its national development. In the same linguistic and cultural institution, a cooperation agreement was signed between OSU and Tianjin Foreign Studies University. This agreement is aimed at joint training of personnel, organisation of student internships and academic exchanges [11].

These are just some examples of scientific institutions that actively participate in the exchange of students and scientists between China and Kyrgyzstan. They provide opportunities for students and scientists to expand their knowledge, gain new experience and strengthen friendly ties between the two countries. As a result of the exchange, students and scientists have the opportunity to get acquainted with various aspects of Chinese culture, traditions, and educational methods. They can study Chinese, delve into research in their field, participate in joint projects and scientific conferences, and conduct joint research and publications.

The data from Table 1 clearly demonstrates how the number of foreign students from Kyrgyzstan and other Central Asian countries arriving in China from 2014 to 2022 is constantly growing.

Table 1. Number of international students in China from 2008 to 2022

Countries	Year								
	2014	2015	2016	2017	2018	2019	2020	2021	2022
Kyrgyzstan	3,163	3,232	3,247	4,154	4,614	5,315	5,412	5,923	6,018
Kazakhstan	11,764	13,198	13,996	14,224	11,784	12,224	12,738	12,982	13,021
Uzbekistan	2,192	2,450	3,129	4,171	6,323	6,982	7,124	8,013	8,210
Tajikistan	2,015	2,309	2,606	3,282	4,007	4,752	5,465	6,273	6,402
Turkmenistan	2,002	1,967	2,147	2,601	3,157	3,835	4,662	4,814	5,103
Total	21,136	23,156	25,125	28,432	29,885	33,108	35,401	38,004	38,754

Source: developed by the authors based on data from the Ministry of Education of the People's Republic of China [12].

It can be seen that every year the number of foreign students from Central Asia visiting China increases. This general growth trend persists throughout the study period. Since 2014, the total number of students from Kyrgyzstan has almost doubled compared to the data for 2022.

As part of exchange programmes, students can participate in various cultural events, such as festivals,

contests, exhibitions, and sports competitions. For example, they can take part in the festival of cultural diversity, where representatives of different countries demonstrate their national dances, music and culinary traditions. Such events allow students to exchange experiences, learn from each other, and enjoy cultural exchange.

Research projects

An important area of cooperation between Kyrgyzstan and China in the field of education is played by research projects. Scientists and researchers from both countries have the opportunity to cooperate and conduct joint projects by exchanging experience and expertise. The process of cooperation begins with the establishment of scientific groups in which scientists from Kyrgyzstan and China combine their efforts to carry out a specific research project. They can choose a common topic that will be the basis of their research. Then there is an exchange of ideas, methods, and information, which contributes to the enrichment of the research process [13]. Joint research projects may include various fields of knowledge, such as medicine, engineering, natural sciences, social sciences, etc. Scientists research a jointly chosen topic, conduct experiments, analyse data and exchange research results. This allows them to combine their efforts and gain a more complete understanding of the problem under study.

For example, scientists from Kyrgyz National University named after Jusup Balasagyn and the Chinese Academy of Sciences conducted a joint study on the impact of climate change on water resources in Central Asia. They used modelling and data analysis to assess changes in precipitation distribution, temperature conditions, and river flows, and to assess their impact on the availability of water resources in the region. The results of the study allowed researchers to conclude that climate change is already having a significant impact on the water resources of Central Asia. Changes in precipitation and temperature conditions lead to changes in river flows and water availability for various sectors of the economy and society. This has important implications for agriculture, energy, industry and the ecological balance of the region [14].

Researchers from the National Academy of Sciences of Kyrgyzstan and the Chinese Academy of Sciences conducted a joint study of the biodiversity in the border regions of both countries. They conducted field work, collected samples of various medicinal plants, and analysed the data to investigate and compare the species diversity and ecosystems in this area. Field research allowed researchers to obtain unique data on biodiversity in the border regions of Kyrgyzstan and China. They collected plant samples and conducted a detailed description of the species and their distribution. In addition, researchers have studied the ecological features and conditions of various ecosystems in this area, including forests, mountainous areas and water resources [15].

These examples of projects demonstrate the diversity of areas of cooperation and the importance of scientific research conducted jointly by scientists from Kyrgyzstan and China. They also contribute to the expansion of scientific knowledge, the exchange of experience, and the strengthening of friendly ties between the two countries.

Kyrgyzstan is the place of activity of several Chinese research centres that promote cooperation and knowledge exchange between the two countries. These centres carry out a wide range of research work and conduct active cultural and educational events. One example of such a centre is the Kyrgyz-Chinese Research Centre. The centre was established to strengthen academic cooperation and

develop cultural ties between Kyrgyzstan and China. Its tasks include conducting research on various aspects of Sino-Kyrgyz relations, organising scientific conferences and seminars, and exchange of experience between scientists of both countries. The centre covers a wide range of topics, including political, economic, cultural, educational and scientific aspects of cooperation between the two countries. Another example is the Chinese Cultural Centre in Bishkek. The centre is a platform for the popularisation of Chinese culture and language in Kyrgyzstan. Various events are held here, such as Chinese festivals, exhibitions, concerts, Chinese language courses, and much more. Courses are offered at different levels, from beginner to advanced, and include grammar, speaking, writing, and reading. The centre also organises the exchange of students and scientists between China and Kyrgyzstan, contributing to the development of educational cooperation [16].

These Chinese research centres play an important role in deepening mutual understanding, strengthening friendly ties and developing cooperation between China and Kyrgyzstan in various fields, including education, culture, and scientific research.

Grants and scholarships play an important role in cooperation between China and Kyrgyzstan in the field of education. China actively provides grants and scholarships for students and scientists from Kyrgyzstan, giving them the opportunity to get a quality education and carry out research at prestigious universities and research institutes in China. In addition, scientists from Kyrgyzstan can also apply for grants and scholarships to conduct research projects at scientific institutes and universities in China. This allows them to expand their scientific knowledge, interact with leading Chinese researchers, and participate in joint scientific programmes and projects. Such cooperation promotes the exchange of experience, the development of new research areas and the creation of international scientific networks. Students and scientists from Kyrgyzstan can receive financial support for studying and living in China at the expense of the Chinese government scholarship programme for foreign students and scientists. There are also various foundations and organisations that provide grants for specific research projects and exchange programmes [17].

Challenges and their overcoming in educational cooperation

Participants in cooperation between China and Kyrgyzstan in the field of education and research face several challenges and problems that may affect the effectiveness and efficiency of their interaction. One of the main challenges for students and scientists is the language barrier. Chinese can be difficult for international students, which can make it challenging for them to study and participate in academic events in China. The need to learn Chinese may require time and effort, which may be a challenge for some participants. Differences in education systems between China and Kyrgyzstan can create difficulties for students and scientists in adapting to the new educational environment. Differences in curricula, teaching methods and assessment may require additional time and effort to adapt and successfully complete the curriculum. Cultural differences between China and

Kyrgyzstan can also become a challenge for the participants of cooperation. Differences in customs, values, communication styles, and expectations can affect mutual understanding and cooperation between students and scientists from both countries. The need to develop intercultural competence and adapt to a new cultural environment may require time and effort. Financial issues can also be a challenge for cooperation participants. Differences in the cost of tuition, accommodation and other expenses between China and Kyrgyzstan may create financial constraints for some students. The need to seek financial support or scholarship opportunities can be a challenge for those who face limited resources. Cooperation participants may also face administrative procedures and visa issues when organising an exchange and conducting research work. The process of obtaining a visa, processing documents and other administrative formalities can be complicated and require additional effort and time.

Appropriate measures can be taken to overcome the challenges faced by participants in cooperation between China and Kyrgyzstan in the field of education. Providing additional language support, such as Chinese language courses and language programmes, will help students and scientists from Kyrgyzstan master Chinese and overcome the language barrier. The organisation of special adaptation courses will help students and scientists from Kyrgyzstan adapt to the new educational environment faster, get acquainted with the specifics of the education system in China, and gain the necessary skills to successfully participate in academic events. The provision of financial support in the form of grants, scholarships, and exchange programmes will help reduce financial barriers for students and scientists from Kyrgyzstan allow them to gain access to quality education and conduct research in China. Simplification of administrative procedures and visa formalities can significantly facilitate the participation of students and scientists from Kyrgyzstan in cooperation with China. This may include simplifying the visa application process, creating special programmes and software solutions for the exchange of documents and information. Improving communication channels between the participants of cooperation, such as virtual platforms, online courses and webinars, contributes to a more effective exchange of information and experience, facilitates joint research and distance learning. The adoption of these measures will help participants in cooperation in the field of education between China and Kyrgyzstan overcome challenges and problems, ensure successful and mutually beneficial cooperation, and contribute to the development of education and research in both countries.

Discussion

Educational cooperation between China and Kyrgyzstan plays an important role in strengthening friendly ties, exchanging knowledge and experience, and developing educational and scientific fields in both countries. This allows students and scientists to gain new opportunities for education, research, and cultural enrichment. The “One Belt, One Road” initiative has played an important role in the development and strengthening of this cooperation,

contributing to the creation of new partnerships and knowledge exchange between China and Kyrgyzstan.

According to the study, the importance of cooperation between China and Kyrgyzstan in the field of education is confirmed at the present time. Education plays a key role in the development of human capital, knowledge exchange, and cultural enrichment. China and Kyrgyzstan actively cooperate in the field of education, which contributes to the strengthening of friendly ties and mutual understanding between peoples. One of the main areas of cooperation is the exchange of students and scientists. China provides scholarships and grants for students and scientists from Kyrgyzstan, which allows them to get an education and conduct research at Chinese universities and research institutes. This creates opportunities for acquiring new knowledge, expanding experience, and strengthening cultural ties. Research projects are also an important component of cooperation. Scientists and researchers from Kyrgyzstan can cooperate with colleagues from China in the framework of joint projects, including the exchange of experience, research, publication of papers, and participation in conferences and seminars. Such projects contribute to the exchange of knowledge and the development of scientific fields in both countries.

This study shows that cooperation in the field of education faces challenges and problems, such as the language barrier, cultural differences, financial constraints, and administrative complexities. Some participants may face difficulties in adapting to a new environment, understanding cultural characteristics and organising funding for their studies or research activities. A number of measures can be taken to overcome these challenges. It is important to organise language support and adaptation courses for students and scientists coming from Kyrgyzstan to China. It is also necessary to provide access to financial support, provide scholarships and grants for students and scientists, simplify visa procedures and resolve administrative issues. Understanding the challenges and problems faced by the participants of cooperation and taking appropriate measures can contribute to a more effective and successful development of cooperation in this area.

Y. Huang analysed the positive and negative factors and problems in the implementation of the “One Belt, One Road” project between China and Kyrgyzstan, with special attention to its prospects in creating favourable conditions for close economic ties between the regions of the two countries that run along the Silk Road [18]. Among the positive factors and advantages of the project, the author included geographical location, trade and economic potential, educational cooperation, and infrastructure projects. The researcher attributed financial risks, political instability, cultural and linguistic differences, and environmental factors to the problems and challenges.

In general, cooperation in the field of education between China and Kyrgyzstan is a promising and important initiative that can contribute to the development of economic and cultural ties between the two countries. However, for the successful implementation of the project, it is necessary to actively overcome challenges and problems, as well as constant cooperation and mutual understanding between partners.

R. Pantucci analysed the foreign policy of the People's Republic of China in the field of humanitarian cooperation and investigated the existing conditions of cooperation in the field of education between China and Central Asian countries, including Kyrgyzstan [19]. Cooperation in the field of education, which is an important part of humanitarian exchange, reflects the current situation and the level of interaction between China and the countries of Central Asia [20-22]. The results of the study show that the "One Belt, One Road" initiative has become a key foreign policy tool for the development of the educational sphere proposed by China in recent years.

The overall assessment of the current situation indicates significant progress in the humanitarian sphere in relations between China and the countries of Central Asia. Mutual cooperation in education plays an important role in strengthening friendly ties, developing cultural understanding, and raising the level of education in the region [23-25]. However, it is necessary to continue working on overcoming challenges and problems so that cooperation in the field of education becomes even more effective and mutually beneficial for all participants.

A. Hoh assessed the impact of the "One Belt, One Road" initiative on the development of the educational sphere in Kyrgyzstan and other Central Asian countries [20]. The study evaluates what specific measures and projects have been implemented, what results have been achieved, and how this affects the quality of education and its accessibility for students and scientists. The initiative promotes the creation and modernisation of educational institutions, including schools, universities, research centres and other educational institutions [26; 27]. The initiative promotes the expansion of the exchange of students and teachers between Kyrgyzstan and China, as well as other Central Asian countries. Due to the initiative, the development of scientific research and innovation in the educational sphere takes place [28].

It is worth noting that in order to fully and comprehensively understand the impact of the "One Belt, One Road" initiative on the development of the educational sphere, it is necessary to conduct a more in-depth study, including analysis of data, statistics and specific projects implemented within the framework of this initiative. Such a study will help to better understand both the positive and negative aspects of the "One Belt, One Road" initiative in the educational sphere, and offer recommendations and measures to optimise and improve this initiative in the future.

J. Reeves analysed the features of educational exchange between China and Kyrgyzstan, including student exchange programmes, teaching mobility, and scientific research [21]. The study shows the effectiveness and efficiency of such programmes, the obstacles faced by participants, and the benefits they receive from participating in the exchange. Student exchange programmes between China and Kyrgyzstan allow students from both countries to get acquainted with a different culture, educational system, and language. Teaching mobility allows teachers from both countries to exchange experiences, learn new teaching methods, conduct joint research, and develop academic ties [29; 30].

In general, the analysis of the features of educational exchange between China and Kyrgyzstan, including

student exchange programmes, teaching mobility, and research, shows the effectiveness and efficiency of these programmes, but they also need to develop recommendations for improving and further developing cooperation in the field of education between China and Kyrgyzstan.

A. Li assessed the economic impact of cooperation between China and Central Asia on the field of education [22]. One of the important aspects of economic influence is the influx of foreign students from Kyrgyzstan to China. The increase in the number of students coming from Kyrgyzstan to study in China has a positive impact on the Chinese economy. These students often pay for tuition, accommodation, meals, and other services in China, which contributes to the development of local businesses and job creation. Educational cooperation encourages investment in educational infrastructure and educational institutions [31]. China provides financial support for the construction of new educational institutions, the modernisation of existing ones, and the introduction of new technologies in the educational process [32; 33].

In order to fully understand the economic impact of educational cooperation between China and Kyrgyzstan, it is necessary to conduct a more in-depth study that will include statistics and specific projects implemented within the framework of this cooperation. This would facilitate a more accurate assessment and study of the economic benefits and effectiveness of such cooperation programmes in the educational sphere.

In general, cooperation in the field of education between China and Kyrgyzstan has great potential for development and cooperation in various fields. Understanding and analysing the challenges, advantages, and prospects of such cooperation is important for developing effective strategies and joint projects that contribute to the further development and expansion of cooperation between the two countries.

Conclusions

The study revealed the role of the "One Belt, One Road" initiative in the development of its participating countries. This initiative unites various fields such as economics, culture, medicine, education, tourism, sports, archaeology, and others, creating a new model of cooperation between countries. The historical ties and relations between China and Kyrgyzstan in the field of education and their current state were described. Several key areas were identified within the framework of the "One Belt, One Road" initiative, which contribute to the development of educational ties and strengthen cooperation between the two countries. The main areas include the exchange of students and scientists, the development of academic ties, cooperation in research projects, cultural exchange, grants and scholarships. Examples of the process of exchange of students and scientists between Chinese and Kyrgyz scientific institutions, and the creation of Confucius Institutes that offer Chinese language and culture courses for students and the public were brought up. An increase in the number of foreign students from Kyrgyzstan, Kazakhstan, Turkmenistan, Uzbekistan, and Tajikistan arriving in China from 2014 to 2022 has been revealed. The role of research projects in cooperation between

Kyrgyzstan and China in the field of education was determined, and successful projects of scientific institutions of the two countries in various fields of science were highlighted. During the study, several Chinese research centres were identified in Kyrgyzstan, which contribute to the development of cooperation and knowledge exchange between the two countries. These centres carry out a wide range of research work and conduct active cultural and educational events. Such centres include the Kyrgyz-Chinese Research Centre and the Chinese Cultural Centre in Bishkek. Several challenges and problems were identified that may affect the effectiveness and efficiency of their interaction. These include the language barrier, differences in educational systems, cultural differences, financial issues, and administrative procedures. Appropriate solutions were proposed for these challenges.

In conclusion, it can be noted that cooperation in the field of education between China and Kyrgyzstan within the framework of the “One Belt, One Road” initiative has significant potential for the development of the educational sphere of both countries. It promotes the strengthening of diplomatic, economic, and cultural ties, and the creation of favourable conditions for the exchange of knowledge,

experience, and technology. The “One Belt, One Road” initiative is an important foreign policy tool for developing educational ties and strengthening mutual understanding between China and Kyrgyzstan. The results of the conducted research indicate the positive impact of the initiative on the development of the educational sphere. Further study on this topic may include a more in-depth analysis of the impact of the “One Belt, One Road” initiative on the development of the educational sphere in Kyrgyzstan and other Central Asian countries, and an assessment of the effectiveness of student exchange programmes, teaching mobility, and research. It is also important to investigate the economic impact of educational cooperation between China and Kyrgyzstan to better assess its potential and benefits.

Acknowledgements

None.

Conflict of Interest

None.

References

- [1] Amankulov B. One belt – One road. Role and prospects of Kyrgyzstan. Sustainable development of Central Asia. *Bull Kazakh-German Uni.* 2018;2(11):10-15.
- [2] Islanova RU. “One belt - One road” project: problems and prospects for implementation in the Kyrgyz Republic. *Bull Academ Pub Admin President Kyrgyz Repub.* 2019;26:143-147.
- [3] Alimardonov OK. Paradiplomacy of Uzbekistan and China. In: *Proceedings of the international scientific conference “Uzbekistan-China: development of historical, cultural, scientific and economic relations”* (pp. 222-226). Tashkent: Tashkent State University of Oriental Studies; 2022.
- [4] Baltaev JR. Kyrgyzstan's policy in the context of integration and globalization. *News Uni Kyrgyzstan.* 2021;1:220-224.
- [5] Omurova JO. Cooperation of the Kyrgyz Republic with the Chinese People's Republic within the framework of the “One Belt – One Way” Project. *Social Sci Open Access Repos.* 2019;24(5):236-249.
- [6] Foo N, Lean HH, Salim R. The impact of China's one belt one road initiative on international trade in the ASEAN region. *North Am J Econ Fin.* 2020;54:101089.
- [7] Chang PT. Kyrgyzstan and China: The role of higher education in developing the new relationship of “Dialogue of Civilizations”. In: *China's Development and the Construction of the Community with a Shared Future for Mankind* (pp. 789-790). Singapore: Springer; 2023.
- [8] Wang L, Li N. Scientific and Educational Cooperation Between China and the Commonwealth of Independent States. In: *Proceedings of the 4th International Conference on Contemporary Education, Social Sciences and Humanities* (pp. 1678-1681). Amsterdam: Atlantis Press; 2019.
- [9] Chen JYW, Jiménez-Tovar S. China in Central Asia: Local perceptions from future elites. *China Quart Int Strat Stud.* 2017;3(3):429-445.
- [10] Kyrgyz National University named after Jusup Balasagyn. 2023. <https://www.knu.kg/ky/>
- [11] Hunchao C. Chinese-Kyrgyz cultural and educational cooperation on the platform of the Confucius Institute in 2022. *Bull Bishkek State Uni name after K. Karasaeva.* 2023;9:54-56.
- [12] Ministry of Education of the People's Republic of China. 2021. Educational Statistics. <http://en.moe.gov.cn/documents/statistics/2021/national/>
- [13] Nicharapova J. Cooperation of China and Kyrgyzstan within belt and road initiatives: Construction of roads in Kyrgyz Republic. In: *Logistics & Diplomacy in Central Asia* (pp. 222-232). Paris: EMS; 2022.
- [14] Wortmann M, Duethmann D, Menz C, Bolch T, Huang S, Tong J, Krysanova V. Projected climate change and its impacts on glaciers and water resources in the headwaters of the Tarim River, NW China/Kyrgyzstan. *Climat Chang.* 2022;171:30.
- [15] Wang GQ, Huang LQ, Xie DM. Introduction of traditional medicinal plants in Kyrgyzstan. *China J Chinese Materia Med.* 2014;39(3):391-396.
- [16] Cai P. Understanding China's belt and road initiative. *Lowy Institute for International Policy*; 2017. <https://policycommons.net/artifacts/1345592/understanding-chinas-belt-and-road-initiative/1957739/>
- [17] Jones I. Perceptions of Chinese investments in Kyrgyzstan. In: *Securitization and Democracy in Eurasia: Transformation and Development in the OSCE Region* (pp. 299-312). Cham: Springer; 2022.

- [18] Huang Y. Understanding China's Belt & Road initiative: motivation, framework and assessment. *China Econ Rev.* 2016;40:314-321.
- [19] Pantucci R. Beijing binds: COVID-19 and the China-Central Asia relationship. In: *COVID-19 Pandemic and Central Asia* (pp. 23-30). Washington: Institute for European, Russian and Eurasian Studies; 2021.
- [20] Hoh A. China's belt and road initiative in Central Asia and the Middle East. *Digest Mid East Stud.* 2019;28(2):241-276.
- [21] Reeves J. China's Silk Road economic belt initiative: Network and influence formation in Central Asia. *J Contemp China.* 2018;27(112):502-518.
- [22] Li A. "One Belt One Road" and Central Asia: A new trend in internationalization of higher education? *Int High Educ.* 2018;92:14-16.
- [23] Hrynkevych OS, Ostroverkh PI, Hrynkevych V. On occupational safety in Ukraine in the context of social risks of preserving human capital. *Econ Forum.* 2023;1(3):3-11. <https://doi.org/10.36910/6775-2308-8559-2023-3-1>.
- [24] Mustafin A, Kantarbayeva A. Resource competition and technological diversity. *PLoS ONE.* 2021;16(11 November):e0259875.
- [25] Tashpulatov SS, Sabirova ZA, Cherunova IV, Nemirova LF, Muminova UT. A device for studying the thermophysical properties of bulk textile materials and their packages by the regular mode method in air. *Period Tche Quim.* 2020;17(34):940-950.
- [26] Shyian D, Litovchenko I, Sevriukova Y. Peculiarities of the formation of human capital in rural areas in the pre-war period. *Econ Develop.* 2023;22(3):32-41. <https://doi.org/10.57111/econ/3.2023.32>.
- [27] Kaimbayeva L, Kenenbay S, Dikhanbaeva F, Tnymbaeva B, Kazihanova S. Histological studies of the muscle tissue of the bactrian camel meat in the process of autolysis. *Food Sci Technol.* 2021;41(2):371-375. <https://doi.org/10.1590/fst.02520>.
- [28] Kukhtyn M, Salata V, Berhilevych O, Malimon Z, Tsvihun A, Gutyj B, Horiuk Y. Evaluation of storage methods of beef by microbiological and chemical indicators. *Potrav Slovak J Food Sci.* 2020;14:602-611.
- [29] Nagovska V, Hachak Y, Gutyj B, Bilyk O, Slyvka N. Influence of wheat bran on quality indicators of a sour milk beverage. *East-Eur J Enterp Technol.* 2018;4(11-94):28-34.
- [30] Auanassova A, Auanassova K, Zhumagulov B, Karasayev G. The alash party on the Kazakh statehood. *Astra Salvens.* 2018;6(1):129-136.
- [31] Zaitsev OV. Monetary inflation and its connection with rising prices. *J Adv Res Law Econ.* 2016;7(3):698-707. [https://doi.org/10.14505/jarle.v7.3\(17\).27](https://doi.org/10.14505/jarle.v7.3(17).27).
- [32] Ismailova JA, Delikesheva DN, Akhymbayeva BS, Logvinenko A, Narikov KA. Improvement of Sweep Efficiency in a Heterogeneous Reservoir. *Smart Sci.* 2021;9(1):51-59.
- [33] Stukalenko NM, Zhakhina BB, Abuyev KK, Seitkasymov AA, Utegenov MZ. Critical thinking development in students during college education process. *Glob Media J.* 2016;2016:1-8.

Співпраця в галузі освіти між Китаєм і Киргизстаном в рамках ініціативи "Один пояс, один шлях"

Чаннін Ван

Киргизький національний університет імені Джусупа Баласагіна
720033, вул. Фрунзе, 547, м. Бішкек, Киргизька Республіка

Гульміра Карабалаєва

Киргизький національний університет імені Джусупа Баласагіна
720033, вул. Фрунзе, 547, м. Бішкек, Киргизька Республіка

Руйсін Чжао

Хенанський університет
475001, вул. Мінлун, 85, м. Кайфен, Китай

Сяньфен Чжоу

Киргизький національний університет імені Джусупа Баласагіна
720033, вул. Фрунзе, 547, Бішкек, Киргизька Республіка

Цянь Дін

Киргизький національний університет імені Джусупа Баласагіна
720033, вул. Фрунзе, 547, м. Бішкек, Киргизька Республіка

Анотація

Актуальність. Тема дослідження, пов'язана зі співробітництвом між Китаєм і Киргизстаном у сфері освіти, є актуальною, оскільки обмін знаннями, досвідом і технологіями через освітні програми та проекти може сприяти розвитку інноваційного потенціалу Киргизстану і створенню нових можливостей для економічного зростання. Така співпраця надає киргизьким студентам, викладачам та науковцям можливість отримати якісну освіту та розширити свої знання і навички.

Мета. Метою даного дослідження є аналіз та оцінка сучасного стану та потенціалу співпраці між Китаєм та Киргизстаном у сфері освіти в рамках ініціативи "Один пояс, один шлях".

Методологія. Серед використаних методів - аналітичний, статистичний, функціональний, системний аналіз, дедукція, синтез, порівняння.

Результати. У ході дослідження було проаналізовано існуючі освітні програми та проекти, що реалізуються між Китаєм та Киргизстаном у рамках ініціативи "Один пояс, один шлях". Розглянуто різні форми співпраці, такі як обмін студентами та викладачами, спільні дослідження, розробка освітніх курсів і програм. Оцінено результати і досягнення співпраці в галузі освіти між Китаєм і Киргизстаном, що включає аналіз успіхів у сфері академічної мобільності, наукового співробітництва, спільних дослідницьких проектів і розробок.

Висновки. Визначено вплив співпраці в галузі освіти на розвиток людського капіталу в Киргизстані. Виявлено виклики та проблеми, які можуть вплинути на ефективність та результативність їх взаємодії, а також надано рекомендації щодо їх вирішення. Практична цінність полягає у використанні виявлених результатів і вирішенні питань, пов'язаних з підвищенням якості освіти в Киргизстані з метою виведення цього процесу на якісно новий рівень.

Ключові слова: обмін студентами та науковцями; людський капітал; культурний обмін; наукові дослідження; освітні програми; Киргизстан; Китай.