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HOW CAN DISTANCE LEARNING OFFER OPPORTUNITIES FOR DEVELOPING COUNTRIES? CASE OF TURKEY AND KAZAKHSTAN*

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Received 11 December 2022; accepted 14 March 2023; published 30 March 2023

Abstract. Many scientific studies highlight emergency distance education's two fundamental problems during the COVID-19 pandemic. The first is the large number of students who need more access to communication technologies, and the second is the digital incompetence of educators and students. This study, which was prepared by Turkish and Kazakh academics working within the scope of the Bolashak scholarship program, aims to question the cooperation potentials for the development of distance education, which will become more critical in the future, and to propose policies to solve the main problems in the pandemic. In this context, the issues in Turkey and Kazakhstan during the pandemic were collected and generalised. SWOT analyses were conducted for the potential of cooperation between the two countries and both countries' exchange/internship programs. The findings show that both countries have intense distance education experiences, cooperation potential, and sufficient opportunities to strengthen weak elements by developing mobility and scholarship programs. Several strategies are suggested for these improvements. These recommendations provide a perspective for these two countries and all countries continuing distance education after the pandemic.

Keywords: pandemic; distance education; digital education; international cooperation; Turkey; Kazakhstan

Reference to this paper should be made as follows: Mencet, M.S., Gabdyssalyk, R. 2023. How can distance learning offer opportunities for developing countries? Case of Turkey and Kazakhstan. *Entrepreneurship and Sustainability Issues*, 10(3), 231-253. [http://doi.org/10.9770/jesi.2023.10.3\(16\)](http://doi.org/10.9770/jesi.2023.10.3(16))

JEL Classifications: O15, O19, O53, O57

Additional disciplines: information and communication; education

* This research was funded by Bolashak International Scholarship of the Presidency of the Republic of Kazakhstan, grant number 15-1/215.

1. Introduction and Review of Literature

While distance education was an alternative for employees, etc., in recent years, it has become a global remedy in situations that negatively affect the flow of life, such as pandemics. It is likely to be so in the future. For example, when writing this article, two major earthquakes occurred in Turkey nine hours apart. In the aftermath of this disaster, which was recorded as the second deadliest earthquake in the world (USGS, 2023), higher education was suspended across the country until further notice. If the normalisation process is prolonged, it is also on the agenda to compensate for the lost time with hybrid methods that include distance education. Therefore, the development of distance education systems has considerable public benefits.

Distance education has continued since Caleb Phillips announced education by mail on March 20, 1728 (Bower & Hardy, 2004). The development of communication and information technologies has increased the possibilities of distance education, and the widespread use of the Internet has expanded the scope of distance education. When the Massachusetts Institute of Technology (MIT) made the content of nearly two thousand courses accessible to anyone from anywhere in the world in a network environment in 1999, it added another dimension to the concept of distance education. It provided new opportunities for developing countries to access knowledge (Baysal et al., 2015) (p.467). However, the most critical change in the nearly three-century history of distance education occurred during the COVID-19 pandemic. The problem that the study focuses on is the problems experienced during the pandemic.

According to UNESCO reports, all schools were closed in 195 countries due to the pandemic, and more than 1.5 billion students from preschool to higher education were negatively affected (UNESCO, 2022b). Distance education has been a remedy to solve this problem. UNESCO has presented distance education as a solution to the potential difficulties of education stagnation and published several recommendations for the efficiency of distance education (UNESCO, 2020). Although distance education is considered a solution in this sense, in countries with inadequate technology infrastructure and limited access to computers, smartphones, etc., the existing disadvantageous situations have become even worse.

The introductory text of the Global Education Coalition, created under the UN Secretary-General's leadership with the "Learning Never Stops" slogan, emphasises that there is great inequality in education on a global scale. It is also noted that closures during the COVID-19 pandemic have disproportionately harmed disadvantaged students. Fifty per cent (826 million) of students worldwide do not have a computer, and 43% (706 million) do not have internet access. In Sub-Saharan Africa alone, 56 million students cannot access mobile networks. (UNESCO, 2022b). In the reports published by the Organization for Economic Cooperation and Development, the United Nations Educational, Scientific and Cultural Organization and the World Bank, problems such as being caught unprepared for the pandemic period, access to technology, difficulties in measuring learning outcomes in curriculum deficiencies, and inequality in education were experienced (Nayır & Sarı, 2023). Central Asia, where Kazakhstan, one of the focus countries of the study, is located, is one of the regions where such negativities are experienced.

Kazakhstan, one of the largest states in the Central Asian region, is better than its neighbours. Still, problems have also occurred in this country, access to technological devices, an emergency transition to distance education, educators and parents of students needing to be prepared, etc. Although Turkey has a deep-rooted history in distance education and a widespread education network, the problems experienced on a global scale have also been experienced in this country.

The most crucial factor in alleviating such problems is trained human power. Developing countries encourage their young people to receive education in other countries to close the gap in qualified human resources. These

exchange/internship programs have a high social return when implemented correctly. In many countries worldwide, various student and scientist mobility programs are carried out to benefit from the scientific knowledge of different countries. Governments or organisations such as the European Union, UNICEF and the World Bank often support these programs. As of 2022, approximately 7.5 million students worldwide are studying in a country other than their country of citizenship. This figure is estimated to reach 20 million by 2030 (OECD, 2022). Especially for educationally backward countries, such programs offer various opportunities. The discussion topic of the study is what opportunities student and expert mobility/internship programs can contribute to improving the problems experienced in distance education after the pandemic and whether countries have enough potential for this.

The pandemic period has been a separate test for developing countries. During this period, academic studies were conducted on the efficiency of education and many related issues. However, a literature review reveals very few studies comparing countries (e.g. Srivastava, 2002; Zubcova, 2021; Suárez Lantarón, García-Perales & Elisondo, 2021; Navickas et al., 2022; Wang, Zhan & Liu, 2022).

In the literature, the distance education experience in Kazakhstan and Turkey has been frequently examined at the national scale of both countries. However, there is no study comparing these two countries, which are geographically distant but have similar social and cultural structures. Our study has two main objectives. Firstly, to fill this gap and contribute to the literature by adding data from Turkey and Kazakhstan to distance education research on a global scale; and secondly, to examine whether the international student and expert mobility programs can be a solution to improve these problems after the pandemic. The case study of the research is the Kazakhstan Bolashak program, which brings together researchers under the title of Distance Education Methodologies.

In the first section of the study, data from the literature will be presented about problems experienced in distance education in Turkey and Kazakhstan. In the methodology section, within the research design framework, the pre-pandemic distance education activities of Turkey and Kazakhstan and their current situation will be analysed with SWOT. Then, one more SWOT analysis will be conducted for the potential of scholarship and mobility programs between the two countries to provide cooperation opportunities for the two countries in the post-pandemic period. Both analyses will draw on existing findings and observations of researchers involved with the Bolashak scholarship program. Based on the findings, various strategies will be proposed.

1.1. Emergency Distance Education in Kazakhstan

During the pandemic, the Kazakhstan government switched to distance learning as part of a rapidly implemented social lockdown. This transition occurred during the spring break in the last half of March in Kazakhstan. Teachers were quickly trained during the holiday break. Some TV and YouTube channels were also dedicated to education as an alternative for citizens who might have trouble accessing the Internet, and some open learning platforms were supported (Astana Civil Service Hub, 2022). When the findings of the research on emergency distance education in Kazakhstan are analysed, it is possible to classify the difficulties encountered under two headings: the first is access to modern technologies and internet speed, and the second is the lack of digital skills of teachers (Akhmat Yassawi University Eurasian Research Institute, 2020; Sapargaliyev & Shulenbayeva, 2013; Seilkhan et al., 2022).

According to Bokayev et al. (Bokayev et al., 2021), with 31,300 respondents in Kazakhstan, citizens' access to technological devices is the most critical problem in this process. Only 21% of Kazakhstani students have access to a computer that they can use regularly. Approximately 78% of families primarily use their cell phones as the only access point to online materials, and many families need more smartphones for each child. In addition to the need for more access, the most critical problem is the low rate of slow internet access and speed.

While better off than its neighbours, in 2020, only 79% of Kazakhstan's population had access to the Internet. Active social media users accounted for 51% of the population. Compared to 2019, the proportion of the population with access to the Internet increased slightly by 4.5%. In February 2020, according to WebSiteToolTester reports, Kazakhstan ranked among the 216 countries after Brunei, Brazil, Armenia, and Myanmar (We Are Social & Hootsuite, 18.02.2020). According to the study of Bokayev et al., slow internet speed also harms children's motivation to learn. According to the same study, Kazakhstani parents' satisfaction with the distance education system increases as they age, while their satisfaction decreases as the number of children grow. Parents with high-income levels were more satisfied with the applications than those with low-income groups. Teacher's competence in implementing e-learning techniques directly affected the satisfaction level of parents.

Based on all these findings, the most critical shortcoming of the current situation in Kazakhstan, which has been making tough reforms in the field of education for nearly thirty years, is the lack of trained staff in the area of communication and information technologies and the inadequacy of educators in technology literacy.

1.2. Emergency Distance Education in Turkey

Higher education in Turkey was suspended for three weeks on March 12 2020; one week later, it was decided to continue through distance education to avoid stopping higher education (YÖK, 2020a). Immediately after formal education was suspended, 64% of 189 universities switched to distance education within two weeks. However, virtual classrooms were only available in 29.1% of public universities. In the first semester, exams were held only through homework (YÖK, 2020b).

Although the transition to distance education has been realised quickly and at the institutional level, the adaptation process of educators and academics in Turkey, as in all countries, has also been painful. Some universities that are not experienced in distance education and have yet to invest in this field have experienced various problems related to technological infrastructure. The most critical problem encountered is the inadequacy of many instructors in digital literacy and learning (Alan, 2021; Unluer & Ayhan, 2023). Likewise, this rapid transition was problematic for the students; on social media, many expressed wanting something other than distance education, that summer courses, etc., should compensate for it. Students were mainly reluctant to switch to a new system, but in the process, new opportunities and experiences in new learning techniques were gained in terms of student-educator interaction (Yasemin et al., 2021)(p.229), (Dindar et al., 2022)(p. 1347-1349), (Yazgan, 2022)(p.5358).

As pandemic conditions worsened, suspending education was one of the most essential measures to protect the health system. The Council of Higher Education (YÖK) managed this process dynamically, without breaking away from the grounds of consultation, without leaving any arbitrary loophole for any institution, and in rapid coordination with university rectorates (Ak et al., 2020) (pp.908-910).

The problems experienced in emergency distance education in Turkey can be classified under two headings: administrative (educator/administrator)- and consumption (student)-based. The problems experienced in the administrative dimension can be summarised as the separation between academic units and distance education centres, lack of expert staff, lack of planning, the acceptance of distance education by stakeholders and financial difficulties (Bilgiç & Tüzün, 2015) (p.46-47). For example, according to a study conducted on educators working in primary education, it was observed that educators were not satisfied with distance education in terms of student attendance, classroom management, assessment and evaluation, etc., and had negative attitudes toward distance education (Baloglu & Firat, 2023) (p.1). According to another study, students sometimes have difficulties accessing computers and the Internet; the high internet fees during the pandemic create problems for families (Erzen & Ceylan, 2020)(p.229). In a study conducted with higher education stakeholders, attention was drawn to

digital impossibilities, lack of interaction in distance education and difficulties in the transition to emergency distance education, but it was observed that awareness of the indispensability of distance education increased in terms of not interrupting education (Yaylak, 2023) (p.65).

1.3. Summary of Common Problems

The problems experienced by both countries during the COVID-19 pandemic are very similar. When the findings expressed in dozens of studies conducted in both countries are compiled, the following headings stand out: a) the problem of access to electronic devices, b) inadequate internet infrastructure, c) expensive internet use, d) negative attitudes of a large part of teachers and students towards distance education for socio-economic reasons e) inadequacy of electronic content to be presented in courses. The findings highlighted here are similar to the problems identified in other countries, especially in comparative analyses, as mentioned above. This comparative analysis was conducted on a different scale than Kazakhstan - Turkey (Central Asia - Eurasia). In addition to compiling problems, only a few studies have been found in which solution proposals have been analysed. Our article contributes to the literature regarding collecting problems and analysing solution strategies. These analyses will be included in the material and method section of the study.

2. Research Objective and Method

In response to the abovementioned problems, our paper argues that strengthening inter-state cooperation among countries facing similar problems can significantly improve these problems. This issue, which should be discussed directly within the theoretical framework of international relations, will not be discussed in detail here as it is not the focus of this article. However, numerous studies in the literature, albeit from many different perspectives such as neoliberal institutionalism, structural realism, globalisation, development, etc., provide various findings and approaches to the positive impact of international cooperation (Milner, 1992; Ndou, 2004; Outreville, 1990; Powell, 1991). We focus on strengthening distance education and increasing cooperation between countries to provide more efficient reactive solutions to pandemics, disasters, etc.

The study's research design is planned in two dimensions: analysing the problems and proposing solutions. For solution proposals, the focus was primarily on identifying the issues. The findings of the studies conducted separately in both countries are presented in the previous section under the titles of Kazakhstan and Turkey. To summarise the problems outlined in the previous section and reduce them to main headings for solution strategies, SWOT analysis, which is the most appropriate method for analysing the current situation, was preferred. The main reason is that looking at the issue holistically is more relevant than making a projection based on data obtained from a single study group (survey, interview, etc.).

Using data from the past and present while creating the SWOT analysis and including observations on the content of a cooperation program in which the researchers were also involved can provide us with a more holistic and relevant perspective. SWOT analysis, as in this study, is used to identify an organisation's strengths and weaknesses and plan strategies for solving threats and evaluating opportunities (Teoli et al., 2022). It is frequently used in educational and social sciences, especially in organisation, management, etc. It is also a widely used method in health sciences and engineering sciences (Benzaghta et al., 2021; Giusti et al., 2020). Ghazinoory et al. (Ghazinoory et al., 2011) describe this method as "an examination of the past, a framework for the future". Our study aims to propose policies for the future in the context of the realities we have encountered with the testing of the potential of the past in the COVID-19 pandemic.

SWOT analysis has two dimensions: internal factors and external factors. It has four components: 'strengths', 'weaknesses', 'opportunities', and 'threats'. This method can be applied at different analytical levels - individual, organisational, national, and international. It can be used by educational institutions, nonprofit organisations, countries, governments, and multiculturalism projects (Gürel & Tat, 2017). In our study, each item in the matrix prepared by SWOT analysis will be coded, and the findings of the studies conducted on these items will be presented with the titles of these codes.

2.1. Research Questions

To test our argument, a SWOT analysis will be made to examine the current situation regarding the cooperation potential of both countries. Afterwards, a SWOT analysis will be made for the internship/student mobility applications we recommend. For each finding detected in these analyses, information will be given along with its historical background. Strategies for strengthening the weaknesses will then be determined. In the context of the purpose and scope of the research, the following research questions were designed.

RQ1: What are the internal and external factors will affect the cooperation of the two countries in the field of distance education?

RQ2: What are the possible level of student and expert mobility between the two countries for cooperation?

The answers to both research questions were compiled by the SWOT analysis method, utilising data from the literature and the researchers' observations. Each data point obtained is briefly explained under the title of Findings.

2.2. Scope and Limitations

The scope of the research is the human resources for distance education and distance education institutions of the two countries, the main problems encountered during the pandemic, and the potential for post-pandemic cooperation in distance education. The sample is the Bolashak scholarship program. The analysis of the fellowship program is based on available documents and observations. Due to the limited duration and intensity of the fellowship program, the researchers could not conduct in-depth interviews, surveys, etc., with other fellows. This gap was filled with data on the program's focus areas, the support received, and the activities carried out thus far. In this way, it aims to create a particular background for researchers working in the same field with the data obtained.

3. Findings

3.1. Situation Analysis for Cooperation on Distance Education between Two Countries

Studies on distance education in both countries have been analysed, and the following findings have been obtained. The two countries' institutional infrastructures, experiences, advantages, and disadvantages are considered internal factors, while global developments and the general social structure are considered external factors.

Table 1. SWOT Analysis-1 for RQ1

Strengths	Weaknesses
IS1: The fact that distance education has been practised in Turkey and Kazakhstan for thirty years IS2: Activities of Akhmed Yassawi University IS3: Cooperation protocols between the two countries to date IS4: Kazakhstan and Turkey's growing economies IS5: Historical, ethnic and cultural ties between the two countries	1W1 Internet access problems in both countries 1W2 The problem of digital literacy in both countries 1W3 lack of qualified personnel 1W4: Low trade volume between the two countries
Opportunities	Threats
IO1: Awareness of Distance Education with the Pandemic IO2: Diversification and easily using of distance education software	IT1: Prejudices against distance education IT2: Rising Global Inflation and the Rise of the Dollar Exchange Rate

The analysis findings based on document analysis and observations are presented below.

3.1.1. Strengths

IS1: Experiences of Kazakhstan and Turkey in distance education

Kazakhstan is a country that has made the fastest and most radical changes in education in the Central Asian region (Gül, 2019) (p. III and 2). Immediately after gaining its independence, reforms were made in education, distance education was regulated by Education Law No. 319-III dated July 27 2007, and distance education programs started to be opened (ZAKON). Founded in 1992, Ahmad Yassawi University is the leading university in Kazakhstan, and distance education is being carried out at the following universities: Kazakhstan University of Engineering and Technology, Karaganda Kazpotrebsoyuz University, Zhansukirov University, Satbayev University, Kazakhstan National Women Teachers University, Esil University, Turan University, and Kazakhstan University of Technology and Management.

The economic situation of teachers has improved since the pandemic. Teachers' salaries, which averaged 250 USD before the pandemic and were well below the average wage level in the country (ISAP, 2021), were increased to 550 USD in 2022 and are expected to increase by 25% in 2023 (Макаров, 2022).

Turkey started distance education studies with the method of learning by mail before 1980. With the establishment of the Anadolu University Open Education Faculty in 1982, distance education became a system covering large student masses at the primary, secondary and higher education levels in the 1980s and 1990s. Since the end of the 1990s, with developments in information and communication technologies, distance education has increased educational opportunities, and millions of students have benefited from distance education (Bozkurt, 2017). According to the web page of the Anadolu University Open Education System, one out of every two higher education students in Turkey is a student of the Anadolu University Open Education Faculty (Anadolu University, 2022).

One of the most critical initiatives that enabled Turkey to strengthen its distance education infrastructure was the establishment of the Digital Transformation Office under the Presidency. Thus, digital transformation activities carried out by different institutions were organised within a single corporation (Presidency Of The Republic Türkiye Digital Transformation Office, 2022). The fact that the highest level of the state led this transformation move was good preparation for the pre-pandemic crisis. Moreover, in 2014, a minimal number of open

educational resources were uploaded to the Council of Higher Education (YÖK) Course Platform with the contributions of only eight out of two hundred universities in Turkey and the Turkish Academy of Sciences as a result of COHE's involvement in the process over time and the rapid work carried out during the pandemic period. This platform includes many open-access lecture notes from universities (Istanbul, Anadolu, Atatürk and METU). This arrangement eased the burden of educators trying to provide lecture notes to their students in a short time during the pandemic (Baysal et al., 2015)(p.491), (YÖK, 2020c).

In summary, distance education programs have been running in both countries for nearly three decades, mainly at the higher education level.

IS2: Activities of Akhmet Yassawi University

In the previous sections of the study, universities in both countries were mentioned. However, Ahmed Yassawi University is different from others. This university was established with the two countries' cooperation and mostly continues higher education through distance education. Ahmet Yassawi University was established in 1992. In 1996, the interactive distance started simultaneously with the connection between the rector's office building in Turkestan and Ankara, where the Board of Trustees is located (Köksoy, 2004). According to the protocol signed in 1999, master's programs were conducted jointly with Gazi University in Turkey through video conferencing. Kazakh-Russian education is provided at the Ahmet Yesevi University Shymkent Distance Education Faculty, while the language of instruction at the Turkistan Distance Education Faculty is Kazakh and Turkish (University, 2022).

IS3: Protocols between the two countries to date

The Republic of Turkey was the first country to recognise the Turkic Republics that declared their independence from the Soviet Union. The Presidency of Economic, Cultural, Educational and Technical Cooperation was established to strengthen cooperation with these countries. More than a hundred agreements have been signed between Kazakhstan and Turkey. One of the most important of these is the Agreement on Cooperation in the Fields of Education, Science, Culture and Sports between the Republic of Turkey and the Republic of Kazakhstan, which entered into force on December 2 1993. Within the scope of the agreement, the development of cooperation between the universities of the parties and the development of direct contacts in this direction are supported. After the expiration of the agreement, many cooperation protocols were signed within the same scope (Republic of Türkiye Ministry of Foreign Affairs, 1994).

IS4: Kazakhstan and Turkey's growing economies

As mentioned in the first chapter, the most critical problems faced by Kazakhstan and Turkey in emergency distance education are inadequate ownership of technological tools by citizens, access to the Internet and qualified internet infrastructure. This is directly related to the economic structure. Therefore, the economic indicators of both countries were also analysed.

Kazakhstan is one of the countries with the world's richest deposits of oil, natural gas and precious metals. The country's economy is based mainly on oil exports. It is the ninth country in the world in terms of area. The estimated growth rate for 2022 is 2.2%. GNI per capita is USD 10,003, and GDP is approximately USD 194 billion. Its young population with an average age of 31.1 years, vast geography, history and culture offer rich opportunities for cultural cooperation (Republic of Türkiye Ministry of Trade, 2022).

According to the latest edition of the World Bank's Turkey Economy Monitor, the Turkish economy has been growing systematically since 2000, exceeding expectations in 2021 (11.4%). However, the current account deficit is high (43.4 billion USD) due to its dependence on energy imports. As in every country, the COVID-19 pandemic has negatively affected the country's economy. One of Turkey's strengths is its investment in R&D activities. In 2021, the total expenditure on R&D activities carried out in 1,257 centres was approximately 8

billion USD (Bank, 2022; Turkish Statistical Institute, 2022; Türkiye Cumhuriyeti Sanayi ve Teknoloji Bakanlığı, 2022).

According to IMF data, regarding gross national product and purchasing power per capita, Turkey ranks 50th in the world, and Kazakhstan ranks 59th, one step above Russia (Ventura, 2022). To summarise, although both countries have strengths and weaknesses in the economic field, they have the potential to support each other with the right policies.

1S5: Historical, ethnic and cultural ties of the two countries

Kazakhstan and Turkey share the exact ethnic origin, i.e., a common origin regarding race, language and culture. However, both geographical remoteness and historical differences in the form of government have led to significant differences in the language and culture of the citizens of both countries. For many years, Kazakhstan was under Soviet Russian hegemony, while Turkey was closer to Europe and, during the Cold War, to the United States. Today, the two countries do not speak a common language. However, Kazakh Turkish and Turkish originate from the same language. These common ties can be an advantage for joint projects.

3.1.2. Weaknesses

The problems encountered in the existing infrastructure of both countries and in the emergency distance education process are listed below.

1W1: Problems accessing the Internet in both countries

Despite the improvements made, the slowness of the internet connection or the expensive access to the Internet is one of the most critical factors that make distance education problematic. Statistics on this are presented in the first section.

1W2: The problem of digital literacy in both countries

Particularly, educators were identified as needing help in adapting the formal curriculum to digital channels (details in Chapter 1). It is also clear that students' limited access to the Internet will reduce their ability to use both devices and the Internet more efficiently.

1W3: Lack of qualified personnel

Qualified software personnel are needed in almost all countries. This deficit is felt more clearly in Kazakhstan and Turkey, which have yet to catch up with the large countries in the field of informatics. Indeed, in addition to the digital literacy competence of educators mentioned in the previous section, there will always be a need for people who will produce the local teaching management system (Para Dergisi, 2022).

1W4: Narrow trade volume between the two countries

In 2021, the foreign trade volume between Turkey and Kazakhstan approached 3 billion dollars. However, Kazakhstan's share in Turkey's exports and imports is 0.6%. Imports from Kazakhstan exceeded Turkey's exports to Kazakhstan (Republic of Türkiye Ministry of Trade, 2022).

3.1.3. Opportunities

1O1: Increasing Awareness of Distance Education on a Global Scale

Due to the COVID-19 pandemic, students reacted negatively to the mandatory transition to distance education (Dindar et al., 2022; Güneş & Fatma, 2022; Markova, 2021; Nilsson, 2021). This is undoubtedly a result of negative prejudices. Its urgent implementation also brought problems and reinforced these negative attitudes, as it was done reluctantly. This negative attitude was also frequently observed by researchers throughout the pandemic period. However, it was also recognised as an important opportunity to ensure the continuity of education. In

addition, it can be expected that individuals will get used to distance education, and their prejudices will soften as they frequently use learning management systems and teleconferencing applications. Already with the pandemic, the fact that most companies emptied their offices and continued their activities on the web and thousands of people continued their working lives with hybrid models inevitably brought distance education to an important place (Caravella et al., 2022; Elmurodov & Pirmazarova, 2022). Therefore, the fact that all citizens now know distance education the world, that prejudices are broken, and that it is understood as an alternative model that can be applied in socially difficult periods is an essential motivation for developing studies on this subject.

1O2: Diversification and easy use of distance education software

Before the pandemic, some software, such as Adobe Connect, Blackboard, Moodle, Google Classroom, etc., dominated the market. Today, nearly nine hundred LMS applications are in use (E-Learning Industry). For example, while a local learning management system program called ALMS was being used at Akdeniz University before the pandemic, it was switched to Microsoft Teams as the number of students suddenly increased to sixty thousand. In the pandemic, after the first exams were held on Microsoft Forms, separate software (ASOS) prepared by the faculty members of the university was used for the exams.

3.1.4. Threats

1T1: prejudices against distance education

As mentioned in the previous sections, resources available for collaborations in this area may be limited. Mandatory distance learning is not generally viewed favourably or is not a priority for governments.

1T2: Rising Global Inflation and the Rise of the Dollar Exchange Rate

The COVID-19 induced economic recession has pushed global public debt to record highs, leading to higher global inflation (Kose et al., 2021). Experts emphasise that this inflation is not temporary (Gharehgozli & Lee, 2022). According to a study analysing inflation rates after previous pandemics, the more prolonged and profound the pandemics, the more persistent the negative impact on inflation (Bonam & Smādu, 2021).

Another problem is the depreciation of national currencies. Against the US dollar (USD), the Kazakhstan Tenge (KZT) has depreciated by 29.28% over the last five years (Google Finans, 2023a), and the Turkish Lira (TRY) depreciated by 80.11% (Google Finans, 2023b). This makes it difficult for citizens of both countries to obtain capable electronic devices, which naturally negatively affects the strengthening of the infrastructure for distance education and access to communication devices.

3.2. Situation Analysis of the Cooperation of Student and Expert Mobility between the Two Countries

To answer the second research question of the study, "What is the potential of student and expert mobility between the two countries for cooperation? ", a SWOT analysis was applied based on the data obtained from the literature and the observations of the researchers regarding the student and expert mobility that both countries are currently conducting (Table 2).

Table 2. SWOT Analysis of Student and Expert Mobility Between the Two Countries

Strengths	Weaknesses
2S1 Turkey's Student and Expert Mobility Programs	1W1 Kazakh and Turkish Students Prefer Different Countries for Internship Programs
2S2 Kazakhstan's Mobility Programs	1W2 Good Practice Examples are Scarce or Not Known
2S3 Two Countries' Joint Student Mobility Experience	1W3 Individual Applications, Non-Determination of Common Thematic Programs
Opportunities	Threats
2O1 Increasing Online Study Opportunities	2T1 Increased travel and accommodation costs
2O2 All elements in the strengths category of the SWOT 1 Table	2T2 Other pandemics, etc., global/social events

Information on the headings categorised in the table is presented below.

3.2.1. Strengths

2S1 Turkey's International Student and Expert Mobility Programs

The Republic of Turkey has been regularly sending and accepting students from abroad since October 29 1924. In 2021, Turkey broke its record by taking 65 thousand of international students and ranked first among the countries with the most international students. (Türkiye Sholarships, 2022). Turkey has two main programs: Turkey Scholarships and Mevlana Exchange Programs.

The Turkey Scholarship program, run by YTB, first under the Prime Minister's Office and later under the Ministry of Culture and Tourism, first received 42,174 applications in 2012. This number exceeded 165,000 in 2021 from 178 countries around the world. The institution also runs special programs for different regions, such as Albert Einstein German Academic Refugee (DAFI), Higher Education Support Scholarship Program (HESP), Spark, Yemeni, Pioneers, Islamic Development Bank and World Intellectual Property Organization (WIPO). Turkic Republics are not included in these programs.

The Mevlana exchange program is run by the Council of Higher Education (YÖK). In the Mevlana program, students can participate for a maximum of two semesters, and academic staff can join for three months (Türkiye Sholarships, 2022; YÖK, 2022a). In addition to these programs, there are scholarships provided by the Ministry of National Education under Government Scholarships. For the 2022-2023 academic year, agreements have been made with Belgium, Hungary, China, Azerbaijan, Croatia and Morocco. In addition, Brunei, Romania, Uzbekistan and Hungary are also accepting students through the Ministry of Education (Education, 2023).

2S2 Kazakhstan's Student and Expert Mobility Programs

Kazakhstan considered the most reformist country among the Turkic Republics in terms of education, is also the country with the highest international student mobility in Central Asia. In 2010, Kazakhstan joined the Bologna process, increasing student and academic mobility. Other Turkic Republics have not entered the Bologna process (Yalçinkaya & Beşirli, 2022) (p. 366).

According to the National Bureau of Statistics of Kazakhstan (Kazakhstan National Bureau of Statistics), international students increased from 5,982 to 28,194 in 2000. Kazakhstan is a country in the region that accepts more international students than Russia.

Kazakhstani students who go abroad prefer Russia the most in higher education and Turkey the second most. (UNESCO, 2022a).

The most well-known program is the Bolashak State Scholarships. Launched on 5.11.1993 on the instructions of the President of Kazakhstan Nursultan Nazarbayev, the International Bolashak Program aims to strengthen relations with the international community. The program's website states that the rationale for establishing the program is "At the dawn of Kazakhstan's independence, leaders of a new format are needed to establish high-quality relations and communication with the international community". The program is carried out within the 100% state-owned International Programs Center Joint-Stock Company, established by Decree No. 301 of the Government of the Republic of Kazakhstan dated April 4 2005. The program aims to train specialists for priority sectors of the national economy. The program includes both academic training (master's and doctoral studies) and research and production internships in leading companies and universities around the world. Employers also participate in the program. Employing students and graduates from various universities worldwide undoubtedly offers employers many advantages. Bolashak's graduate jobs office inventory includes more than two hundred companies, including transnational corporations. To date, 11.474 people have been trained under the program, and 8.279 have completed their contractual obligations (Bolashak).

The scholarship program covers pursuing a master's or doctoral degree, residence and internship in a foreign country. Civil servants, engineers, workers, farmers, technicians, etc., can apply for internships. Scholars must also obtain an invitation letter from the university to which they will apply. Suppose the scholarship recipient does not return to Kazakhstan or does not work for five years after completing the program. In that case, he/she must repay the entire scholarship amount (Electronic Government of the Republic of Kazakhstan).

Bolashak is significant, as it was the first post-soviet program to allow talented young people to study abroad. The program has become a guarantee of a successful career for its graduates. Over the years, the scope of the program has expanded. The program included only the US, UK, Germany and France in the early years. Later, with the development of cooperation with foreign universities and the revision of the rules, the geography of the study was expanded. The Bolashak 8th International Conference on Global Challenge (Miami/USA) was cited as a model internship mobility program in a report comparing programs from 11 countries (Bolashak, 2022).

According to Perna et al. (Perna et al., 2015), the low unemployment rate among Bolashak users suggests that the program has partially achieved its objectives, as it is perceived as an effective, albeit imperfect, policy tool to meet Kazakhstan's short- and medium-term labour needs. Most employers surveyed state that program beneficiaries have better reasoning, critical thinking and foreign language skills, increasing companies' potential to pursue international partnerships. One of the program's strengths is the requirement to pass various exams and complete the evaluation process to qualify for a scholarship. Applicants must pass the Independent Expert Commission interviews and achieve a minimum evaluation score (Bolashak, 2022).

2S3 Student mobility between two countries

Regular student mobility between the two countries started in 1992 with the Great Student Project. This project was coordinated by the Ministry of State of the Republic of Turkey, the Ministry of National Education, the Ministry of Foreign Affairs, the Ministry of Interior and the Council of Higher Education. It was aimed directly at the Turkic Republic. In the first phase, seven thousand higher education and three thousand secondary education students were brought to Turkey. In a short time, the scope of the project was expanded, and 57 more countries with historical, geographical and religious ties were included in the scholarship program. However, in the face of current developments, the program has not

been efficient due to the inadequacy of the legislation and the units that ensure the execution of the program (Öztürk, 2014)(p.56-63).

In the Bolashak program, which we focus on in our study, according to information from the International Program Center Bolashak (including the information in Table 4 and Table 5.), from the beginning of the program until October 2022, a total of 11,791 experts in 33 countries have studied abroad. Of these, only 36 (3%) interned in Turkey. In 2022, 36 students, academics and teachers are studying at twelve universities in Turkey. The distribution of trainees by field of training is presented in Table 3.

Table 3. Areas of Internship in Turkey under the Bolashak Program

Academic Discipline	Frequency
Distance Education Methodologies	11
Philology	3
History	3
Archaeology	3
Molecular Biology	2
Geography	2
Nanotechnology	2
Chemistry	1
Pediatric Surgery	1
Medieval Monuments	1
Religious Sciences	1
Social Philosophy	1
Culture Theory	1
Technical Aesthetics and Design	1
Urology	1
Law	1
Foreign Language (Turkish in Turkey)	1
TOTAL	36

The distance education methodologies that stand out among the areas where the authors of this study work are the program launched in early 2022 with the protocol signed between the Bolashak Program and Akdeniz University Distance Education Application and Research Center (AKUZEM). In the program in which the academics who signed this article also shared their observations, intensive training was given to academics on the basic principles of artificial intelligence, distance education practices and legislation in Turkey, open education systems, the use of techniques such as photography and film in distance education, the preparation of electronic course content, etc. Scholars also attended Turkish language courses. In this sense, the internship program with the Bolashak scholarship provided an opportunity for academics of both countries to gain in different fields.

Student mobility between the two countries regularly started in 1992 with the Great Student Project. This project is coordinated by the Ministry of State of the Republic of Turkey, the Ministry of National Education, the Ministry of Foreign Affairs, the Ministry of Interior and the Council of Higher Education and is directly aimed at the Turkic Republics. In the first stage, seven thousand higher education and three thousand secondary education students were brought to Turkey. The scope of the project was expanded in a short time, and 57 more countries with historical, geographical and religious ties were included in the scholarship program. However, in the face of current developments, the program could not be efficient due to the inadequacy of the legislation on the scholarship program and the units that ensure the execution of the program.

3.2.2. Weaknesses

2W1 Kazakh and Turkish Students Prefer Different Countries for Internship Programs

When the number of applications is analysed, the application rate of students from Central Asia and South Caucasus countries, including the Central Asian states, is in the middle of the regional distribution (Table 4).

Table 4. Distribution of students applying to the Turkey Scholarships Program by region

Region	N. of Students	Rate (%)
South Asia	42.381	25.6
Middle East	38.576	23.3
Sub-Saharan Africa	36.206	21.9
North Africa	20.010	12.1
Central Asia and South Caucasus	13.658	08.2
Asia Pacific	9.100	05.5
Balkans	2.025	01.2
Europe	2.022	01.2
North and Latin America - Caribbean	1.604	01.0

According to the Council of Higher Education data (YÖK, 2022b), the distribution of students studying in Turkey by nationality for 2021-2022 is presented in Table 5.

Table 5. 2021-2022 Academic Year, number of students by nationality

Country	Man	Woman	Total
Azerbaijan	17.143	6.629	23.772
Turkmenistan	11.206	8.178	19.384
Kazakhstan	1.441	1.468	2.909
Uzbekistan	1.549	874	2.423
Kyrgyzstan	888	761	1.649

As seen in Table 5, Kazakhstan ranks third. According to the data of the Kazakhstan National Bureau of Statistics for 2021, the number of university students in Kazakhstan is 309 thousand. One per cent of university students prefer Turkey for higher education (Kazakhstan National Bureau of Statistics). The distribution of the number of Kazakhstani students studying at universities in Turkey by year is presented in Figure 1.

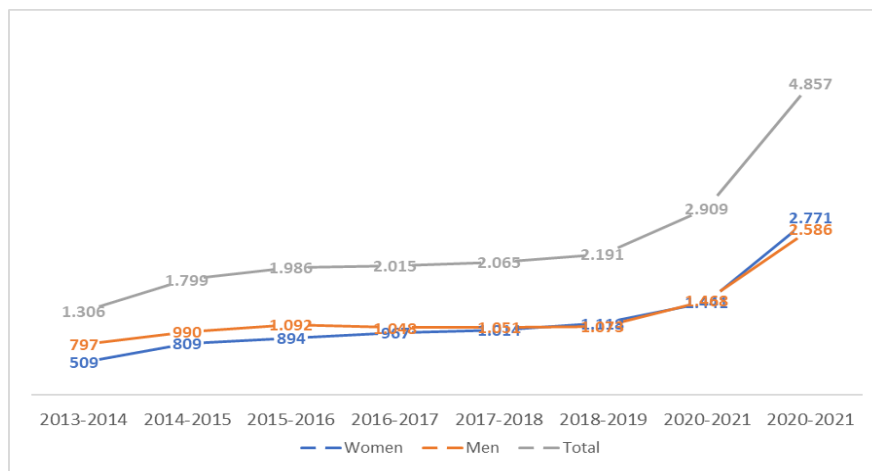


Figure 1. Distribution of the number of Kazakhstani students receiving higher education in Turkey by year (YÖK, 2022b)

Since their independence, the Turkic Republics have moved closer to the West, and many countries have stepped up efforts to capitalise on the region's wealth and improve diplomatic relations. For example, the Russian Mir Foundation and the Confucius Institute in China are investing in attracting students from these countries. Russia's influence on the functioning of higher education in the Turkic Republics is powerful. In particular, Turkmenistan and Uzbekistan receive support from Russian and Chinese funds, and these countries cooperate in higher education programs (Leskina & Sabzalieva, 2021) (p.717).

According to UNESCO data (UNESCO, 2022a), most of Kazakhstan's outgoing students prefer the Russian Federation (71,368 students). However, another striking finding is that Turkey ranks second (2,349 students). The United States ranks fifth (1,974 students), and the United Kingdom ranks sixth (1,288). Students from Turkey prefer Germany (10,862), followed by the USA (8,687) and the UK (4,083).

2W2 Few or No Good Practice Examples

The website of the Bolashak program includes a tiny number of opinions from different students. However, a database of completed projects needs to be shown or known in any internship program. Publishing collective works in a database would increase the interest in these programs and the multiplier effect of scientific studies.

2W3 Individual Applications, Failure to Identify Common Thematic Programs

In the internship programs of students and academics abroad, the prospective student or academician usually creates a working title. The program starts when they receive an acceptance/invitation letter from the partner university. Instead, a specific theme can be determined, and larger teams can produce larger projects. In this way, the development of distance education software, technological device production, infrastructure development, etc., can be approached, which requires significant investments and teams.

3.2.3. Opportunities

2O1 Increased Opportunities to Work Online

Although the geographical distance between Kazakhstan and Turkey necessitates an internship program within a certain period with a particular expenditure, the remote working models detailed in 1O1 can be developed. If the study program is structured under a thematic project, the project's continuity can be ensured when the student returns to his/her country.

2O2 All Aspects in the Opportunities Section of SWOT 1.

All the elements that can make the cooperation between the two countries more efficient can also positively affect student mobility when used correctly.

3.2.4. Threats

Articles 2T1 and 2T2

As detailed in Table 1, increasing costs reduce the amounts transferred to the funds and, thus, the number of beneficiaries.

4. Discussion

In the study, SWOT analysis was conducted for two research questions. The findings for RQ1, "What is the current capacity of the two countries for distance education cooperation?" show that solid elements stand out, and both countries have strong potential to jointly strengthen their distance education infrastructure and human resources post-pandemic (1S1, 1S2, 1S3, 1S4, 1S5).

For other weaknesses, the following strategies can be developed.

4.1. Investment in Human Resources: 1W1-1 W2-1 W3-1 W4 > 2S1 - 2S2 - 2S3

For 1W1 (Internet Access Problems) and 1 W4 (Low trade volume between the two countries), we argue that long-term, for 1 W2 (Digital Literacy) and 1 W3 (Trained Human Resources) immediate and short-term, problems can be improved by investing in human resources, for which student and expert exchange programs can provide an opportunity.

In the context of RQ2, "What is the potential of student and expert mobility between the two countries for cooperation?" (SWOT 2), the conditions seem to be favourable for this (2S1, 2S2, 2S3). However, the exchange programs are currently limited to individual work (2 W3), large project teams must be accommodated, long-term workshops must be added, and existing ones must be multiplied. In this way, this weakness in student mobility programs can be improved.

To strengthen other weaknesses in student and expert mobility programs, the following strategies can be implemented.

4.2. Promotion and Incentives: 2W1-2 W2 > 1S4-1S5

As a result of the analysis, it was determined that the preference rates of Kazakh and Turkish students for each other's countries were low. For this purpose, under 1S4 (Growing Economies of Kazakhstan and Turkey), motivation for preference can be increased by using the opportunities and case studies offered by the advantages of both countries and the historical and cultural ties between the two countries (1S5). At the same time, the number of applications to these programs can be increased by introducing examples of good studies to the scientific world (2 W2).

4.3. Remediation of Damage from Threats: 1T1 > 1O1/1 T2-2T2 > 1 O2

The prejudice toward distance education for collaboration (1T1) can be positivized by using the opportunity to increase experiences and awareness of distance education during the pandemic period. The negative impact of increased travel and accommodation costs of internship programs (1 T2-2T2) due to rising global inflation and declining currency values can be mitigated by improving remote working options.

Aside from weaknesses and threats, policy recommendations for strengthening other topics are as follows:

- As suggested by Bokayev et al. (2021, p.37) and Nurmukhametov et al. (2015, p.18) for Kazakhstan, in both countries (and in all developing countries), the technological infrastructure of rural areas and the support of families in these areas are essential for addressing inequality of opportunity in education. Supporting disadvantaged groups is often highlighted in global and national development programmes, EU grant guidelines, etc. Strengthening internet infrastructure in rural areas, encouraging students to access some open courses in high-quality schools or providing separate courses for students in these areas can play a role in improving the problems caused by general inequalities in education. The necessary funding for this could be provided by combining the technological and economic strengths highlighted in the previous sections.
- The joint higher education and internship programmes between the two countries should be increased. The Bolashak scholarship programme offers favourable conditions to continue the necessary work to prepare for these academic programmes.
- Institutions and organisations established in cooperation with both countries should be strengthened (such as Akhmat Yassawi University)
- Turkish universities should support open-access portals in Kazakhstan, and common course content should be prepared.
- The Bolhasaq programme should be expanded to include more higher education institutions from Turkey. More internship programmes and increased student mobility will strengthen cultural and commercial

relations between the two countries and create a suitable environment for scientific publications, joint R&D projects and production.

- Since the Bolhasaq programme also includes internship practices, this aspect should be evaluated especially well. Remembering that the most important problem encountered during the pandemic is access to communication and information technologies (device and connection speed), both countries should focus primarily on improving their IT infrastructure. There should be more internships and mutual work agreements in the companies located in these zones, which mainly consist of technologies on the campuses of universities than has been realised thus far through Bolhasaq protocols. With internship practices under the supervision and support of the states, qualified personnel who are well aware of the assets and shortcomings of both countries can be trained.

Most studies address the problems countries face during the pandemic, and very few provide comparative analyses across different countries. In our study, we discussed how two countries, which have common problems but have different strengths and weaknesses, face different threats but also have many opportunities and can use their different strengths. We analysed the potential of Turkey and Kazakhstan for cooperation and examined our proposed internship/exchange programs. As a result of our findings, we discovered that both countries have high potential and opportunities for cooperation and that the internship/exchange programs that both countries have been conducting for a long time need to be more utilised.

5. Conclusions

Although there is a widespread and realistic belief that distance education does not constitute an alternative to formal education, education and information are moving away from time/space/social class constraints, especially in today's world, where education and information progress uncontrollably unlimitedly through digital media. Formal education practices must refrain from avoiding communication and information technologies that constitute the basis of distance education.

While the increasing importance of the need for educated people in the information society is a major handicap for countries with limited access to technology, for countries lagging in the education race, the fact that access to information is slightly easier than in the past offers various opportunities to close the gap in this race. The rising cost of living, especially in the aftermath of the pandemic, inflation that has reached disturbing levels even in the economies of developed countries, the impending food crisis, etc., will make formal education even more expensive, forcing millions of students to sustain their lives by working a job during their education.

Social state practices, in which education was provided free of charge and equally to all, lost their former functionality after 1980. In addition, in times when epidemics that threaten humanity change daily life in an instant, when billions of people are forced to stay indoors and when students strive to stay away from education by straining their existing means, it has once again become clear how important it is to have a strong distance education infrastructure.

The negativities experienced during the pandemic express the negative situations in the education system. First, it should not be forgotten that the transition to distance education during the pandemic was very rapid. In the proactive process, social, educational and technological negativities were experienced in distance education as a natural consequence of being unprepared for crises due to inadequate distance education infrastructure, prejudices about distance education, etc.

Situations similar to the problems identified in Kazakhstan were also observed in Turkey. In rural areas where some students return home from schools that were urgently cancelled, there needed to be more internet access, expensive internet packages, insufficient computer ownership, etc. In response to the possibility of outbreaks and

mass lockdowns similar to the COVID-19 pandemic, developing IT infrastructures, reducing the costs of access to the Internet, increasing open education resources, and thus providing an environment where access to communication and information technologies is facilitated and distance education/open access content is enriched for sustainable development are among the issues that developing countries such as Kazakhstan and Turkey should take urgent measures to ensure that they do not fall behind in the competitive education race.

The institutions of both states have reached a certain level of experience in distance education. Despite this, historical, sociological, economic, etc., the problems listed in the weaknesses and threats section emerged due to many factors. These problems, which are more unfavourable in developing countries, can be improved more easily and more permanently through cooperation between countries.

It is undoubtedly crucial for the experiences to take advantage of a challenging process, such as the Covid-19 pandemic, into opportunities and to increase the productivity of distance education systems that can be used as a reactive tool in extraordinary conditions. Investing in communication and information technologies is imperative for developing countries, and these countries can reduce their deficiencies through collective efforts. Distance education prepares a suitable ground for such international studies by eliminating time and space constraints.

This study, which compares the distance education experiences of both countries in the time interval covering the pandemic process and before and suggests strategies to improve the problems, will provide a new perspective for decision-makers and the necessary data for scientists working in this field. Our study covers the specified period and two countries. Scientists can develop cooperation strategies for different countries using a similar method and sample. In the literature, the increase in cross-cultural studies will benefit the implementation of cooperation policies. Internship/exchange programmes, as evaluated in this study within the distance education framework, can also create added value for joint studies that countries can carry out in areas such as trade, culture, R&D projects, etc. Academic studies to be carried out in this field will make essential contributions to the literature and policy making.

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Funding: This research was funded by Bolashak International Scholarship of the Presidency of the Republic of Kazakhstan, grant number 15-1/215.

Data Availability Statement: All the data used in the study were used in the text of the article. There is also no data file.

Author Contributions: Conceptualisation: *MSM, RG*; methodology: *MSM*; data analysis: *MSM, RG*, writing—original draft preparation: *MSM*, writing; review and editing: *MSM*; visualisation: *MSM* All authors have read and agreed to the published version of the manuscript.

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