RESEARCH ARTICLE

Beyond borders: The integration of foreign students in the distance learning educational process at the Russian university

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Abstract: The study aims to examine the integration of foreign students who are studying in a distance learning format into the educational process of a Russian university. A mixed-methods approach, involving quantitative data collection (survey and data analysis) and qualitative methods (interviews), was used. Data analysis was conducted using inferential statistics. The study included 103 first-year foreign freshman students (from Uzbekistan, China, Haiti, and Sri Lanka) who were studying remotely at Smolensk State University. The authors identified four interrelated elements of educational integration: technological, academic, sociocultural, and psychological. The combination of their indicators (mastery of the distance learning platform, need for university support, academic performance, proficiency in the Russian language, sociocultural adaptation, satisfaction with learning, etc.) generally demonstrates the successful integration of foreign students into the educational process, while also revealing some differences among representatives of different countries. It was also found that the distance learning format does not significantly reduce the impact of sociocultural integration on academic performance: language and cultural difficulties can negatively affect academic performance. In turn, experience in distance learning, good proficiency in Russian, completion of the curriculum, and participation in activities that develop intercultural competencies ensure successful educational integration.

Keywords: foreign students; distance education; university; higher education; integration

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Received: April 23, 2023; Accepted: May 31, 2023; Available online: July 6, 2023


1. Introduction

In the 21st century, academic mobility has become a widespread phenomenon in the field of education. As a result of globalization and the increasing importance of establishing and maintaining intercultural interaction, there is a trend towards collaboration between universities from different countries, which contributes to the creation of a single educational space[11]. The proportion of foreign students in universities in any country is one of the key indicators of the demand for education and overall competitiveness in the world.
In recent years, the number of foreign students choosing online education has steadily increased\cite{3}. With the development of technology and widespread access to distance learning, students from all over the world have been able to enroll in programs and receive education of different levels without the need to move to another country. The COVID-19 pandemic has significantly changed attitudes toward distance education, accelerating its mass implementation and emphasizing its potential in providing access to education from anywhere in the world.

Russian education, demonstrating a high level of scientific and educational potential, is becoming increasingly attractive to foreign applicants. There is a consistently positive trend of an influx of foreign students into Russian universities. For the first time, it has entered the number of non-raw material export-oriented sectors of the Russian economy\cite{3}. The total number of foreign students receiving higher education in Russia increased by 26,000 from 2019 to 2021, reaching 324,000 people\cite{4}. Russian universities offer a wide range of educational programs at different levels, implemented either fully or partially in a distance format. At present, all types of Russian universities (leading, supporting, and non-status universities) are implementing or planning to create programs for the online education of foreign students\cite{5}.

However, it is worth noting that in the conditions of fully online education, foreign students face specific challenges: in addition to intercultural communication problems, there is a dependence on technical infrastructure, imperfect electronic educational systems, the level of digital skills of students and corresponding competencies of teachers, and many others. Despite its relevance, the organization of online education for foreign students has not been sufficiently explored. Comprehensive studies of the process of integrating foreign students into universities in different countries have been conducted in foreign scientific literature. For example, Kücking\cite{6} and Kroesen\cite{7} investigated students studying in a traditional format, while Chang and Gomes\cite{8} considered the integration of students studying online. Among Russian studies, we did not find comprehensive research on this topic.

Most Russian and foreign authors focus on the integration of foreign students who study in traditional face-to-face format\cite{9,10}, the problematic aspects of providing academic mobility in the context of distance learning and student opportunities\cite{11}, the impact of the COVID-19 pandemic on the educational experience of foreign students\cite{12}, ways to enhance their adaptability when transitioning from face-to-face to online learning\cite{13}, barriers to adaptation to the learning process\cite{14,15}, the culture of interaction between teachers and students in the context of digital learning environments\cite{16,17}, within individual disciplines and teaching methods\cite{18,19}.

Although previous research has examined various aspects of integrating foreign students in the context of distance learning, this study differs from others in its use of a systematic approach that involves identifying the different components of integration (organizational, academic, sociocultural, and psychological), which are interrelated and mutually conditioned in the education of foreign students studying remotely. This study focused on foreign students from diverse cultural and academic backgrounds at a Russian university, and how these factors influenced their successful integration. The study identified and analyzed the technological, academic, and sociocultural components of educational integration, as well as the psychological characteristics that contribute to its personal outcomes. The data obtained from this study provide valuable information for the development of new approaches and programs for teaching and supporting foreign students, as well as for promoting
academic research in this area.

2. Literature review

The educational integration of foreign students is regarded as “integration is the process of the emergence of new systematic step-by-step features in the learning process in a new unfamiliar educational space”\cite{20}. It is capable of supporting and accelerating the educational ambitions and commitments of students\cite{21}, being a key factor in their success in professional training. That is, integration is “a long way of responding to critical events, overcoming various obstacles, and possibly achieving the desired result”\cite{22}.

The spread of the practice of educating foreign students in a distance learning format raises new questions about educational integration. Researchers note that the advantages of distance learning are: lower cost, a large number of opportunities for students and teachers, easier and faster access to information, simplicity, and speed of its dissemination\cite{23}, and better opportunities for academic mobility\cite{24}. However, issues of socio-cultural integration of foreign students who study online and its impact on academic success are poorly studied. Agreeing with the identified difficulties of integration of foreign students by Spencer-Oatey et al\cite{25}, psychological, socio-cultural, and academic, we believe it is necessary to highlight the technological challenges specific to distance learning.

2.1. Academic and social integration

In most studies on the integration of foreign students into the face-to-face learning process, emphasis is placed on two interrelated components: academic and social integration. However, researchers have not yet concluded which form of integration is more important in terms of the overall integration process. For instance, Tinto\cite{26}, Baker and Siryk\cite{27} argue that academic integration is the more important form of involvement as it directly affects academic performance. Conversely, Severiens and Wolff\cite{28} and Rienties et al\cite{29} note that social integration is the most important aspect of the general integration of foreign students into the culture of the host country, as it enhances students’ sense of belonging to the new environment. The level of social integration plays a vital role in the successful academic performance of foreign students through perceptions of teaching staff, social support, social life, ethnic background, and financial support.

The study by Kang and Chang\cite{30} demonstrates the influence of culture on students’ learning behavior in online education through three dimensions: teacher-student relationship, curriculum development, and teaching and learning pedagogy. Reader et al\cite{31} found that different cultural communication patterns increase misunderstanding, and the greater the perception of cultural differences between activity participants, the more instances of misunderstanding occur. When course topics have little relevance to their discourse systems and instructors use cultural references that hinder understanding of the course content, foreign students with limited experience interacting with the host culture and lacking a rich vocabulary may find the course too difficult, stop completing assignments, be afraid to speak and participate in discussions and be unable to write essays or perform group and individual projects at the expected high level\cite{17,32,33}. In this case, the mismatch between the foreign student’s previous educational experience and the university’s requirements based on the host culture may lead to the student’s desire to drop out.
2.2. Psychological characteristics of integration of foreign students in distance learning conditions

Compared to on-campus students, distance students experience fewer cultural, psychological, social, and economic difficulties associated with studying abroad[34] and exhibit a higher level of engagement[35]. Walker-Fernandez[36] and Goodfellow and Lamy[37] have demonstrated that cultural differences can be mitigated in online education through “external identities”[36] or “cultural negotiations” among students[37]. Zan et al[38], in studying foreign students enrolled in an online Chinese university, found that distance learning can positively impact students’ internal motivation and participation, providing them with greater autonomy, flexibility, and social interaction opportunities. However, students may struggle to adapt to the requirements and teaching methods, including uniform instruction, strict exams, and a sequential schedule[39].

At the same time, Rienties et al[40] found that students of “non-Western” origin have greater difficulty integrating into the “Western” educational system and achieve lower grade point averages (GPA). Recently, studies have emerged that focus on the difficulties in monitoring the knowledge of foreign students and the manifestation of “academic dishonesty”[41]. Cultural context, language barriers, and differences in previous educational experiences may lead to a misinterpretation of instructors’ instructions, expected results, perceptions of the importance of different activities in class, use of evaluation methods, and more[42]. As a result, foreign students may experience feelings of overload, confusion, and disappointment in the learning process and its outcomes[43]. During remote learning, even cultural shock can be caused by other factors such as differences in the use of unfamiliar technologies and software[44], difficulties in establishing and maintaining interaction with classmates and teachers since they cannot meet in person or participate in campus social events[15], and increased feelings of loneliness and misunderstanding[17]. According to Shattuck[18], international online students feel “isolated or alienated”, even in highly interactive learning environments through communication.

Asoodar et al[45] see the function of online education as providing pleasure based on the convenience and comfort of the learning environment.

2.3. Technological integration

Based on the components of electronic learning identified by Akhtamova and Chernyshov: human component—students, teachers, system administrators; procedural component—learning process; technological component—software[46], it is noted that problems can arise in any of these components and affect the quality and effectiveness of learning.

In a virtual learning environment, particularly when working with static courses, language issues are further complicated by the absence of visual cues and immediate feedback. In this context, teachers play a crucial role in the online learning environment. The support provided to students by the teaching staff is critical when it comes to facilitating integration within the course[47]. Lee’s[48] study demonstrated that, in a multicultural environment, the three teaching roles existing in online learning—technical, managerial, and pedagogical—are augmented by affective and differentiating roles. Kremen and Tsitsikashvili[49] found a correlation between a teacher’s leadership qualities and students’ positive attitudes toward electronic education. Silva et al[50] study examined the strategies used by teachers to mobilize students to complete tasks available in the virtual learning environ-
ment. In the foundational work edited by Chang and Gomes\(^{[51]}\), the heterogeneity of students’ digital experiences is shown, and it is noted that a universal approach does not account for the diversity of their individual needs in the online environment.

According to Van Wart\(^{[52]}\) quality integration for students means “their own sense of learning achievement, satisfaction with the support they receive, technical proficiency of the process, intellectual and emotional stimulation, comfort with the process, and sense of learning community”. The analysis of research demonstrates, firstly, the diversity of scholars’ views on the problem of integration of foreign students, primarily those studying in the traditional format, and secondly, the lack of articles that comprehensively examine the integration of foreign students studying remotely into the educational process of Russian universities. One can speak of the gaps in the scientific literature that indicate the need for comprehensive research on the experience and needs of foreign students in a multicultural and online educational environment to develop effective programs for their education and support.

3. Materials and methods

This research aims to investigate the integration of foreign students who are studying remotely into the educational process of a Russian university. In the framework of our study, we propose the following definition of educational integration for foreign students studying remotely: it is a process of digital interaction among students, teachers, and university staff with diverse cultural, linguistic, and social backgrounds aimed at ensuring deeper participation in the educational program, adaptation to new socio-cultural conditions, improving overall academic performance, and satisfaction with the received education. Since educational interaction is mediated by digital technologies and is organized through special educational platforms, while familiarization with the traditions and cultural environment of the host country takes place in online educational and extracurricular activities, we believe that the academic and socio-cultural elements of educational integration for foreign students will be mediated by the technological component that ensures the success of the remote format. In addition, the resulting component of educational integration includes personal outcomes expressed in satisfaction with the process and result of learning and the development of personal characteristics. Thus, the study of educational integration for foreign students studying remotely includes consideration of the following interconnected elements: 1) technological; 2) academic; 3) socio-cultural; and 4) psychological.

3.1. Research questions

1. What impact do the individual components of online education—technological, academic, and socio-cultural—have on the integration of foreign students into the educational process?

2. What are the challenges that arise in the process of technological, academic, and socio-cultural integration of foreign students in distance learning?

3. How does the interaction between different components of educational integration of foreign students who are studying online manifest?

4. What are the indicators of psychological integration of foreign students in terms of personal perception and personal achievements of inclusion in the process of distance learning?
### Table 1. Participants’ demographic information

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<th>Students from Uzbekistan (n = 49)</th>
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3.2. Research design and participant selection

**Sample:** The study was conducted based on a purposive sample that included foreign students (from China, Haiti, Sri Lanka, and Uzbekistan) of Smolensk State University who were studying in a distance learning format (n = 103) (Table 1). The study was conducted from 2020 to 2022 on groups of freshman students who were at the initial stage of integration and were studying in the following fields: philology (14.6%), pedagogy and psychology (52.4%), economics and management (13.6%), and law (19.4%).

Smolensk State University is one of the oldest educational institutions in Russia, located in the city of Smolensk, which is a regional center in western Russia. The university has an enrollment of more than 5,000 students, with approximately 90% being Russian and the remaining 10% consisting primarily of international students from Asia, West Africa, and Caribbean countries. Undergraduate students follow a program consisting of 240 credit units, which equates to 30 credit units per semester or approximately 1,000 study hours, including both classroom instruction and independent work.

All international students are taught in Russian. Applicants from former Soviet Union countries must pass a Russian language proficiency exam, while students from other countries can take advantage of additional Russian language instruction provided by the university, including preparatory courses. The university has a special service that assists students with organizational and technical issues such as scheduling, extracurricular activities, course registration, online resource access, visa support, and other matters. However, the responsibility for subject-specific work lies entirely with the leading professor. If necessary, translation services are available in English, French, and Chinese.

The students under investigation are enrolled in their monoethnic groups, with group sizes varying depending on the course and specialty, ranging from 10–12 students to 30. The learning process involves a variety of student activities, including participation in online classes, independent work, such as watching video lectures and completing various written assignments. Some activities require group work, such as joint discussions of educational materials, project preparation, and presentations.

A typical day for a foreign student at the university includes attending lectures and participating in seminars. Depending on their schedule, they may join virtual classes or participate in group pro-
projects using various online platforms such as Google Meet or Yandex Telemost. In addition, students complete ongoing assignments which they receive in their personal account on the Moodle distance learning system. Students may also opt to receive additional consultations to assist them with their coursework or exam preparation. Students are always informed about their classes and assignments through online university services. Interaction between students and instructors takes place through online classes, e-mail correspondence, and feedback during the evaluation of assignments. Students can participate in online academic and extracurricular activities organized by the university.

Student assessment is conducted in various forms, including online interviews with instructors and the completion of various written assignments, including tests. The format of the final exam or credit is determined by the course instructor and explained to students during the first class. The university employs a 5-point grading system.

**Research design**: A mixed-methods design (Figure 1) was employed in this study. Quantitative methods, including a survey of foreign students at the university (Appendix A), were used to collect information on students’ demographic characteristics, reasons for choosing a Russian university, level of proficiency in the language of instruction, experience with distance learning, perceived obstacles and challenges in online learning, and self-assessment of acquired skills. Some questions from the research project of the Ministry of Education and Science of the Russian Federation, “Scientific and Methodological Support for the Development of the Quality Management System of Higher Education in the Context of the COVID-19 Coronavirus Infection and Aftermath”, were adapted for use in the survey according to the objectives of this study. Additionally, qualitative methods (semi-structured interviews, n = 23) were used to explore topics such as motivation, engagement, social interaction, and cultural adaptation in distance learning to obtain more detailed information about students’ opinions regarding the distance learning format. The survey and interviews were conducted on a voluntary basis with the consent of the respondents.

In addition, data from the Moodle electronic learning system were utilized to identify quantitative indicators of students’ academic activity in the courses, such as attendance, task completion,
academic performance, and student engagement in educational chats and forums.

3.3. Data analysis

We have developed characteristics of the studied integration components: technological, academic, sociocultural, and psychological (Appendix B).

Inferential statistics (correlation analysis, linear regression, and Pearson’s chi-squared test) were used to analyze the quantitative data obtained from the questionnaire and to investigate relationships between variables. Descriptive statistics were used to analyze the data from the Moodle system. Thematic analysis was employed to analyze the qualitative data obtained from semi-structured interviews. Transcripts were analyzed based on common themes and patterns. Overall, the mixed-methods design utilized in this study allowed for a more comprehensive understanding of the experiences and issues faced by foreign students studying in a distance learning format.

Limitations: This study has certain limitations. Firstly, the limitations are related to the limited sample of respondents, which may affect the validity of the results. Moreover, it should be noted that mainly students from humanities were studied, which may have an impact on the results for certain areas of integration. Secondly, the subjectivity of evaluating the quality of distance learning in the university should be taken into account, as respondents’ opinions may depend on their personal experience and views on the learning process. Thirdly, it should be noted that the study was conducted based on one regional university, which may reduce the overall applicability of its results to other universities and regions. Furthermore, due to low statistical significance, possible differences in the responses of respondents from different countries, studying in different fields of study were not considered. These limitations should be taken into account when interpreting the results of the study in order to obtain a more accurate and complete picture of the integration of foreign students studying remotely into the educational process of the university.

4. Results

4.1. Technological integration

4.1.1. Mastery of the e-learning environment

The survey revealed that the majority of respondents (78.6%) were familiar with the functionality of the Moodle distance learning system or quickly mastered it and used various features. The respondents noted that the educational courses placed on this platform contained a sufficient amount of information, different types of assignments and tests (62.1%), and provided opportunities for feedback (50.5%). However, some respondents (28.2%) faced certain difficulties in mastering the functionality of the system at the beginning of their learning, such as file uploads or finding the necessary information. A small number of students (11.7%) experience difficulties in self-use of the Moodle system, and constantly turn to classmates for help (5.8%).

Among the technical difficulties of distance learning, problems with technical conditions, such as poor internet connection and inadequate quality of equipment (13.6%), and difficulties with programs and platforms for distance learning (7.8%) were indicated.

4.1.2. University support
According to the survey results, the majority of students (75.7%) know how to obtain information regarding organizational and technical issues. At the same time, 11.7% are not aware of this but assume that their teacher or group curator could assist them, while 12.6% did not require any assistance as they were able to find all necessary information on the university website, including the Moodle system, or obtain it from their classmates.

Half of the students (46.6%) actively use the available resources and services provided by the university. It is possible that other respondents prefer to use alternative resources or have enough experience and knowledge to work without them. However, this may also indicate insufficient effectiveness of the university in providing necessary services and resources.

The obtained data suggest that at least two-thirds of respondents have adapted to the university’s e-learning environment and are generally satisfied with the conditions for distance learning, including infrastructure for conducting online classes and technical support, and information support for learning.

4.2. Academic integration

4.2.1. Indicators of academic performance

According to the Moodle system data, the attendance rate (i.e., participation in online classes, according to the class schedule) is 81.5%. This indicates an interested and responsible attitude towards learning. The result obtained indirectly suggests that teachers, on their part, create conditions for effective learning and motivate students to attend classes.

The correlation analysis of the relationship between the country of origin of students and their attendance rate yielded a coefficient of 0.6 ($p < 0.005$), indicating a strong positive relationship between the variables: students from Haiti and Sri Lanka had lower attendance rates than students from China and Uzbekistan, possibly due to linguistic, cultural, and educational differences.

According to the Moodle system data, 78.6% of foreign students regularly complete assignments and tests on the platform, with an average of 6 completed assignments and tests per week, which is generally consistent with the number of assignments completed by Russian students. Using linear regression, it was found that each additional hour on the platform is associated with a 2.5% increase in academic performance.

The data on current academic performance revealed that 56.3% of the students successfully completed all assignments, receiving a grade of 3 (“satisfactory”) or higher. This may indicate their high motivation and diligence, as well as the effectiveness of teaching methods and approaches to task formation in the course. The average grade for the course is 3.5, indicating that students have some difficulty in mastering the material. However, the average grade for exams is 3.7—students perform better on exams, possibly due to repetition of the material or consolidation of knowledge and skills during the course. Nevertheless, 25% of unsatisfactory grades indicate that some students do not acquire the study material at the required level, possibly due to difficulties in understanding the information or lack of motivation.

The study showed that the student’s country of origin has an impact on their academic performance. The coefficient of determination was 0.25, indicating that 25% of the variation in academic performance is explained by the country of origin. The slope coefficient of the regression line was
negative (−0.17), indicating that the average scores of students from Haiti and Sri Lanka were lower than those of students from China and Uzbekistan. This may be due to factors such as language barriers, differences in educational systems, and culture, which can influence the learning process.

Students from Uzbekistan, who were already familiar with Russian culture and traditions (24.3%), adapted more quickly to the learning process, while 52.4% of respondents who had never been to the country and had no close historical and cultural ties with it, noted difficulties in accessing the university’s educational online space.

4.2.2. Indicators of interaction in the educational process

Analysis of data on the time and quantity of messages in course forums and chats indicates the students’ activity in discussing educational topics. On average, students spend 8 h per week communicating with teachers and classmates (outside of class time). The total number of posts and comments on forums is 150 per course per month, which suggests that students actively communicate and exchange opinions with each other. On average, each student wrote or commented on three posts in the forum. The data confirms the high level of engagement of foreign students in communication during distance learning.

On the other hand, the number of questions asked during webinars or in the chat is on average 20, and the average number of questions per student is 0.67. This may be related to their preference for communicating on forums, where they can discuss topics in more detail and ask questions not only to the teacher but also to other students. The number of questions during class may also depend on the course topic and the level of material comprehension.

Another indicator of successful interaction is group work: 57.3% of students actively participate in group projects, 80% of the total assignments have been completed, and the average grade was 4.1.

According to the survey results, 36.9% of respondents emphasized that they received the necessary help from teachers, and 27.2% were able to interact productively with them during and outside of class time. 27.2% of respondents noted successful communication with other students during distance learning and 28.2% outside of academic activities.

4.2.3. The influence of prior experience with distance learning

According to the survey results, 46.6% of respondents who had prior experience with distance learning rated this format as effective and productive, and found it comfortable for themselves, compared to 23.3% of those who did not have such experience. This indicates that experience with distance learning affects the perception and evaluation of this format: students with experience in distance learning adapt more quickly to the remote format.

4.2.4. The influence of differences in the organization of the learning process

Foreign students face difficulties due to differences in the organization of the learning process in different countries, such as the duration of classes and teaching methods. One of the interview respondents noted that “the teacher can lecture for 1.5 h without breaks within the class”, which makes it difficult to understand and absorb the information. In addition, some students mentioned a large amount of independent work, which is not always checked and evaluated by the teacher, making it difficult to assess the quality of material comprehension.
A significant component of the learning process that affects educational motivation is the grading system. At the beginning of their studies, students had difficulty understanding the evaluation criteria and requirements, which differed from what they were accustomed to, causing concern about unsatisfactory grades and even lowering their motivation to study.

17.4% of the respondents indicated that differences in the organization of the learning process, evaluation, and other factors are an obstacle to their integration into the educational environment. This mainly concerns differences in learning culture, where in certain countries a more authoritarian teaching style is prevalent, while in other countries, independence and initiative among students are more valued.

Overall, an analysis of attendance, various educational activities, and academic performance demonstrate active participation in the learning process by no less than two-thirds of foreign students. However, some respondents experience difficulties due to differences in the organization of the learning process compared to their home country.

4.3. Socio-cultural integration

4.3.1. Reasons for choosing a Russian university

An analysis of responses regarding the choice of a Russian university for higher education revealed various reasons: 62.1% of respondents stated that they would like to study abroad, while 44.6% specifically chose Russia. 36.9% of students believe that in Russia, it is possible to obtain a basic bachelor’s degree, which can be continued in a master’s program in other countries. 28.2% chose Russia because they believe that fields related to the Russian language, literature, and culture are best studied in Russian universities. 29.1% answered that they would like to eventually move to live in Russia. 26.2% of respondents chose the option “a Russian university diploma is more prestigious than a diploma from their own country’s university”. 20.4% noted that there are no programs of interest to them in universities in their own country. 12.6% stated that it is more convenient for them to study in Russian than in other foreign languages. 11.7% are confident that universities in Russia provide higher quality education than in their own country. 8.7% chose Russia because of the higher cost of education and competition in universities in their own country. 7.8% of respondents chose Russia because the specialty they are interested in is better taught in Russian universities.

Students who have been to Russia associate their plans after obtaining a bachelor’s degree with this country: they plan to enroll in a master’s program (39.8%), work for hire (23.3%), or start their own business (18.4%).

At the same time, when deciding to study at a Russian university, many were afraid of various difficulties, especially difficulties in studying in Russian (49.5%). Among the reasons why respondents were hesitant to choose a Russian university, the following were mentioned: the high cost of education (19.4%), concerns about the need for additional confirmation of a Russian diploma of higher education (7.8%), and difficulties in collecting and submitting documents when enrolling in a Russian university (1.9%).

In our opinion, those who chose Russia for higher education because of interesting programs, language, culture, and high quality of education will have a greater motivation to integrate into the Russian education system. Students who have faced language barriers and high costs of education...
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may have less motivation and a tendency to drop out.

4.3.2. Proficiency in the Russian language

According to the survey, 45.6% of the respondents rated their proficiency in the Russian language at an average level of 6 points out of 10. More than a quarter of the respondents rated their language proficiency below average, with 3.9% at 2 points and 20.4% at 4 points. Above average, 30.1% rated their proficiency in the Russian language, with 11.7% at 7 points and 18.4% at 8 points. In other words, 75.7% of foreign students possess a level of Russian language proficiency that is “satisfactory” or higher, which should contribute to their inclusion in the educational process.

The positive correlation coefficient (r = 0.5) indicates a moderate positive relationship between satisfaction with distance learning and the level of Russian language proficiency among the respondents.

Furthermore, the influence of knowledge of the language of the country of study on academic performance was identified. To investigate this, data on the student’s scores on the Russian language exam and their average session score were used. Using linear regression, it was determined that each point in language proficiency increased the average score by 0.7.

The interview results showed that 60.9% of the respondents’ face language barriers that hinder their integration into the educational process. Of these, 26.1% of students reported difficulties in understanding the material presented in lectures and seminars, while 39.1% experienced difficulties in writing academic papers and completing written assignments in the Russian language.

4.3.3. The influence of cultural differences

In the interviews, it was noted that differences in socio-cultural traditions complicate the integration into the new educational environment. According to one of the respondents, “differences in norms of behavior, communication, and attitude towards studies cause difficulties in interaction with teachers”. The interviews show that 39.1% of international students face cultural barriers, making it difficult for them to adjust to the communication style of teachers, and often they have to compromise between their cultural customs and the new culture. As a result, some (17.4%) felt “unconfident in communicating with teachers”. However, more than 60.9% of respondents are willing to become better acquainted with the new culture if it helps them integrate better into the educational environment and achieve success in their studies. Nevertheless, “this is not always possible in the format of distance learning”.

4.3.4. Extracurricular activities as a factor of integration

Extracurricular activities contribute to the consolidation of academic achievements and cultural integration. Among foreign students, the percentage of participants in online conferences organized by the university is 48.5%, for educational lectures, seminars, and master classes it is 40.8%, and for cultural and recreational activities and competitions, it is 39.8%. Such indicators may serve as an indication of students’ engagement in university life and their interest in additional educational and entertainment opportunities. Additionally, out of 103 respondents, 70 were registered on the university’s social networks, with many not only following the official page but also various thematic groups. They regularly keep track of university news, are aware of the conducted events, and view photo and video content.
The interview results showed that the majority of respondents (65.2%) would like to participate in extracurricular activities, such as student contests, Science Olympiads, etc. They believe that “it will help them broaden their horizons, gain additional experience and skills, and meet new interesting people”. Respondents noted that “participation in such events could be beneficial for their future professional plans”. However, some of them (21.7%) are not interested in extracurricular activities, as they feel that “they already have enough activities” and do not want to “spend their time on it”.

4.4. Psychological integration

In general, 78.6% of respondents identified themselves as students of a Russian university. During the interviews, they noted that they were “very happy to study in Russia” and “feel connected to the culture of this country”.

4.4.1. Experience of linguistic and cultural barriers

Despite the distance learning format, students feel the impact of linguistic and cultural barriers, which evoke negative emotions. In interviews, some respondents (21.7%) reported frequently experiencing anxiety when they doubt their understanding of their teacher’s words or textbook texts when completing tasks. Such experiences arise when they do not receive the necessary information, help, and support from both teachers and classmates. This indicates a higher level of anxiety among some students associated with factors such as “linguistic and cultural barriers” and “lack of support and motivation”. According to survey data, in the first months of their studies, some respondents experienced states corresponding to culture shock: 40.8% felt helpless, 20.4% noted a loss of focus and problem-solving ability, and 8.7% exhibited excessively critical reactions to the culture of the country of study. At the same time, 34% of students (mostly from Uzbekistan) did not report any signs of culture shock.

To investigate the relationship between culture shock and academic performance, the Pearson chi-square criterion was used. The obtained value of the statistic was $\chi^2 = 0.5408$ (df = 4, $p = 0.97$), which did not reach the level of statistical significance ($p > 0.05$). Thus, the relationship between culture shock and students’ academic performance was not identified.

4.4.2. Attitude towards distance learning

The survey revealed that 46.6% of the respondents were satisfied with distance learning, and 48.5% reported that they were comfortable participating in remote discussions during classes. However, psychological difficulties were identified, including a lack of personal communication with teachers (37.9%) and classmates (25.2%), difficulty concentrating during classes (3.9%), and challenges with self-study (1.9%).

4.4.3. Satisfaction with the curriculum and the university

The conducted survey showed that 86.4% of the respondents were satisfied with their education at the university (Figure 2). During interviews, students expressed their satisfaction with the educational program, the quality of teaching, and the university experience as a whole.

4.4.4. Personal outcomes of integration into the educational process

As a result of self-evaluation, surveyed foreign students noted that studying at a Russian university contributed to the development of their personal traits and skills (Figure 3).
As education takes place in monoethnic groups, many students have limited experience in communicating and interacting with people from other cultural backgrounds, which insufficiently contributes to understanding the cultural peculiarities of other nations. At the same time, the distance learning format had a positive impact on the development of skills such as self-organization, communication, group interaction, and others.

5. Discussion

The analysis of the study results showed that the distance learning format can have both positive and negative effects on the integration of foreign students into the educational process of the university. On the one hand, it provides a convenient and accessible method of learning. On the other hand, distance learning can complicate the integration of foreign students into the educational process due to the lack of interpersonal interaction and face-to-face participation in various activities. According to the results of the study, the distance format does not hinder the majority of students from inte-
grating into the university space, that is, technological integration does not cause serious difficulties. During distance learning, students are active, successfully complete individual and group tasks, and interact with their teacher and classmates. They have successfully mastered the Moodle electronic educational system. Similar conclusions are reached by other researchers who emphasize the positive impact of the implementation of information technology in the learning process.\cite{53}

The study results show that language proficiency and experience with distance learning are also significant predictors of successful academic integration. Thus, students with low language proficiency and no experience with distance learning experience more difficulties in the learning process. For example, students find it difficult to work with educational literature in Russian due to language barriers, which impede their understanding. The obtained results are consistent with the findings of Faisal and Kisman regarding the importance of having experience in distance learning.\cite{54}

The distance learning format does not require students to adapt to local customs and traditions for successful integration into the educational environment. However, cultural differences such as discrepancies in the education system, expectations of teachers and students, cultural norms and values, and communication styles can affect the way information is perceived and understood, which can negatively affect academic performance. Other studies have also identified problems in the process of students adapting to a new environment.\cite{55,56}

Regarding the fact that differences in assessment systems can lead to increased anxiety and decreased academic motivation, the results of our study are consistent with the findings of other authors who have also noted that adapting to a new environment is a major stressor for students.\cite{57}

The obtained results demonstrate the correlation between academic and socio-cultural elements of integration. Therefore, the selection of more effective teaching methods and approaches to organizing the educational process should be based on the consideration of students’ cultural characteristics. Socio-cultural integration is also promoted by events that stimulate intercultural exchange, organized by the university, where students can learn about the culture of the language being studied, share their knowledge and experience, and expand their social circle. Other studies also highlight the importance of the role of social interaction in the process of integrating students into the university’s educational process under the conditions of distance learning—communication with classmates and teachers, the opportunity to ask for help or advice is extremely important for foreign students, otherwise, isolation can lead to feelings of loneliness and anxiety.\cite{46,58} Thus, our findings are consistent with the recommendations of Dursun and Sevim on the need to assist foreign students in integrating into a new environment.\cite{59}

The results of psychological integration indicate that foreign students who are studying remotely are generally satisfied with their education at a Russian university and report the development of personal and socio-psychological characteristics (self-confidence, self-organization, communication skills, intercultural competence), as an indicator of successful inclusion in the university’s educational process. This is consistent with studies that show the positive impact of studying abroad, including in a remote format, on increasing awareness of different cultures.\cite{60,61}

It is evident that all components of educational integration are interrelated. In the course of the study, it was established that there is a correlation between academic achievement and issues related to cultural differences, which suggests the use of a comprehensive approach in organizing the edu-
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cation of foreign students. In addition to considering the technological features of distance learning, special attention should be paid to the cultural characteristics of each ethnic group when selecting educational content and teaching style. Similar conclusions were reached by Neroni et al.\[62\] who noted the correlation between learning strategies, academic achievement, and cultural characteristics in distance education.

Furthermore, individualized support from the university is necessary for students who experience difficulties of technological, linguistic, and cultural nature. Such support measures include organizing individual consultations with teachers and tutors. These measures aim to provide foreign students with the necessary resources and support for successful distance learning, helping them to adapt more quickly to new conditions, effectively participate in the educational process, and feel comfortable interacting with teachers.

6. Conclusions and future studies

Higher education is becoming increasingly globalized, with foreign students being one of the most important and prominent participants in this process. Education abroad is a multifaceted phenomenon that affects academic institutions as both “host” and “sending” countries, national economies, and individuals\[63\]. However, the rapid development of distance learning technologies not only opens up new opportunities but also creates new challenges for education systems in different countries.

Our study on the integration of foreign students, who study remotely into the educational process, using a Russian regional university as an example, shows that the remote format itself is not a barrier to including students in academic and extracurricular activities when necessary digital tools and proper organization are in place. However, particular attention must be paid to overcoming intercultural barriers related not only to language differences but also to communication traditions, teaching styles, evaluation systems, and so on. Only by taking into account the cultural characteristics of students from different countries in the organization of distance learning, including the development of discipline programs and the organization of additional educational and leisure activities, can their successful integration into the university’s educational process be achieved.

The findings of the study can serve as a basis for the development of effective measures to support the integration of foreign students into the online learning environment and improve their overall learning experience. We can suggest several directions for further research. In particular, it is advisable to study the role of teachers, and the effectiveness of the methods and technologies they use for the distance learning of foreign students. On the other hand, the influence of different teaching strategies on the integration of foreign students into the distance learning process should be examined. It is also important to determine whether the psychological characteristics of students in different majors (humanities, natural sciences, technical fields, etc.) affect their integration into the university’s educational process. In addition, attention should be paid to studying those students who have dropped out of university, as their experience can also provide useful insights into the factors that influence the successful integration of foreign students studying in a distance learning format.
Author contributions

The contributions of the authors are equivalent.

Conflict of interest

The authors declare the absence of a conflict of interest.

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Appendix A

Questionnaire

1. Have you ever been to Russia?
   1. Yes
   2. No

2. Rate your level of Russian language proficiency (from 0 to 10)

3. Are you interested in Russian culture? (art, traditions, way of life, etc.)
   1. Yes
   2. No
   3. Didn’t think about it

4. What are the reasons for entering a Russian university and not your home country’s university? (choose several answers)
   1. Russian universities have the opportunity to study for free/receive a quota (state scholarship) to study
   2. Higher education institutions in our country have higher tuition than in Russia
   3. In our country’s universities there is no training in the specialty I am interested in
   4. A diploma from a Russian university is more prestigious than a diploma from a university in my country
   5. In Russia, universities provide higher quality education than in my country
   6. The specialty I am interested in is better taught at a Russian university
   7. Specialties related to the Russian language, literature, history, and culture are best studied at a Russian university
   8. Wanted to study abroad (no matter where)
   9. I wanted to study in Russia
   10. I am more comfortable learning in Russian than in other foreign languages
   11. I would like to eventually move to Russia

5. What were you afraid of when you decided to study at a Russian university? (select two answers)
   1. Didn’t understand how to get into a Russian university
   2. Language barrier
3. The level of education in Russian universities is lower compared to other countries

4. Russian diplomas of higher education are not recognized in all countries/the diploma will have to be confirmed, to pass a special exam

5. Worried about the high cost of tuition

6. Were afraid of the difficulties in organizing distance learning

7. F feared for my safety

6. Do you identify yourself as a student at a Russian university?
   1. Yes, quite
   2. No

7. Please tell me which of the following you experienced during your first time at the university (select one or more options)
   1. Feelings of helplessness/dependence
   2. Depression and sadness
   3. Excessive irritability
   4. Sleep and eating disorders (too little or too much)
   5. Overly critical reactions to the host culture.
   7. Loss of focus and ability to complete tasks
   8. None of the above.

8. Have you had any experience with distance learning?
   1. Yes
   2. No

9. What are the advantages of the distance learning format in higher education? (choose several answers)
   1. Spending less money on education (including not spending money on moving and living in another country)
   2. It is easier to combine study with work/other employment
   3. More free time
   4. Distance learning is more interesting
   5. More comfortable participating in class discussions
6. More convenient to get learning materials (presentations, assignments, etc.)
7. More comfortable communication with professors
8. Closer and more comfortable communication with classmates
9. Other (what kind)

10. **Do you know who at the university you can go to for information about distance learning?**
   1. Yes
   2. No
   3. Not interested

11. **Do you use the various resources and services provided by the university (library resources, information assistance from the dean’s office, technical support center, etc.)?**
   1. Yes
   2. No
   3. Wasn’t interested

12. **What exactly were you satisfied with when you studied at a Russian university in a distance format?** (select several answers)
   1. Conditions for distance learning (infrastructure for online classes, the timeliness, and accuracy of work on the technical support of online classes)
   2. Information support of training (informing about the schedule of classes, exams, the rules of the works, and other organizational issues)
   3. Help from university faculty and staff when difficulties arise in the learning process
   4. Ability to interact with faculty during and outside of class
   5. Successful communication with other students during distance learning sessions
   6. Communicating with classmates outside of school
   7. Availability of educational literature and materials for training (in electronic form)
   8. Program of study (list and content of disciplines)
   9. Other (what exactly)

13. **What is your attitude to learning using the electronic educational system Moodle?**
   1. I have already had experience with the system, so I have no difficulties
   2. quickly mastered the system and use its various features
   3. The training courses posted on this platform contain quite a lot of information
4. The system enables feedback
5. I have (had) some difficulties in mastering the functionality of the system related to downloading files or searching for necessary information
6. Experiencing difficulties with the independent use of the Moodle system

14. What are the disadvantages of the distance learning format in higher education?
1. Not enough face-to-face interaction with professors
2. Lack of personal communication with classmates
3. Poor technical conditions for remote format (Internet connection, equipment)
4. Difficult to understand the programs and platforms for distance learning
5. It is difficult to hold attention for a long time and not be distracted during classes
6. Difficulty concentrating when studying on your own
7. Difficult to ask and answer the teacher’s questions in a distance learning format
8. I feel more lonely, isolated, and isolated in a distance learning format
9. Other (what kind)

15. In what activities offered by the university, in addition to classes, have you participated?
1. In educational events (popular lectures, master classes, etc.)
2. Conferences, Olympiads
3. In cultural and leisure activities (competitions, festivals, etc.)
4. Other activities (specify)

16. Evaluate your activity in the social networks of the university? (more than one answer is possible)
1. I regularly check the official website of the university
2. Rarely (less than once every two weeks) check the official website of the university
3. I regularly check the university’s social networks
4. Rarely (less than once every two weeks) look at the university’s social networks
5. Not subscribed to the university’s social networks
6. Actively participate in social media discussions on academic and extracurricular topics
7. Other (your option)

17. In general, are you satisfied with the quality of education at the university?
1. Is certainly not satisfactory
2. Rather unsatisfying
3. Rather satisfying
4. Certainly satisfies

18. Assess the extent to which study at a Russian university contributed to the development of the following skills/personal traits:
   a. Absolutely not conducive to
   b. Rather, it contributed to
   c. Fully facilitated
   1. Level of foreign language proficiency
   2. Understanding the cultural characteristics of other peoples
   3. Self-confidence
   4. Self-organization skills
   5. Communication skills

19. Which of the following best describes your plans after you graduate?
   1. Getting a Master’s degree in Russia
   2. Working for hire in Russia
   3. Doing freelance work or having your own business in Russia
   4. Study or work in another country
   5. Join the army
   6. Complete a paid internship
   7. Do unpaid internship/volunteer work
   8. Take a break: don’t work or study
   9. Other (specify what)

20. Specify your gender
   1. Men’s
   2. Women’s

21. Indicate your age (from 19 to 70)

22. Specify your field of study
   1. Philology
2. Pedagogy and psychology
3. Economics and management
4. Low
Appendix B

Indicators of integration of foreign students studying in a distance learning format into the educational process of a university

<table>
<thead>
<tr>
<th>Elements of educational integration</th>
<th>Indicators/Topics</th>
<th>Indicators</th>
<th>Toolkit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technological</td>
<td>Working in the online environment</td>
<td>- mastering the functionality of Moodle learning management system and video conferencing systems - technical difficulties</td>
<td>Questions 13 and 14 of the survey</td>
</tr>
<tr>
<td></td>
<td>Resource support</td>
<td>- use of resources and services offered by the university (library resources, organizational support of the dean's office, technical support center)</td>
<td>Questions 10, 11 of the questionnaire</td>
</tr>
<tr>
<td>Academic</td>
<td>Inclusion in the learning process:</td>
<td>- the percentage of students attending classes, relative to the number of students on the course - the percentage of students who successfully completed assignments and tests, relative to the number of students on the course - average grade for the course/average grade for the exam</td>
<td>Data analyses</td>
</tr>
<tr>
<td></td>
<td>- class attendance</td>
<td>- interaction assessment - the number of questions asked in a webinar or live chat - the number of posts and comments made on the forums - average grade for group assignments</td>
<td>Data analyses</td>
</tr>
<tr>
<td></td>
<td>- job performance</td>
<td>- average number of hours to communicate in an electronic environment - differences in learning styles - differences in teaching methods - differences in the grading system</td>
<td>Data analyses, Questions 9, 12, 14 of the questionnaire</td>
</tr>
<tr>
<td></td>
<td>- academic performance</td>
<td>- differences in the organization of the educational process - lack of communication - the problem of mediated communication - self-organization problem</td>
<td>Data analyses</td>
</tr>
<tr>
<td>Distance Learning Experience</td>
<td>- with faculty</td>
<td>- experience of visiting Russia - interest in the country's culture - the desire to continue training, to work in the country</td>
<td>Question 8 of the questionnaire</td>
</tr>
<tr>
<td></td>
<td>- with classmates</td>
<td>- participation in university extracurricular educational online events (conferences, master classes) - participation in extracurricular educational and leisure activities (competitions, festivals) participation in the university's social networks</td>
<td>Question 14 of the questionnaire</td>
</tr>
<tr>
<td>Sociocultural</td>
<td>Attitude towards Russia</td>
<td>- quality, prestige of Russian education - educational accessibility - availability of specialties of interest - specialties related to the Russian language, culture - career opportunities after graduation - selection concerns</td>
<td>Questions 1, 3, 19 of the questionnaire</td>
</tr>
<tr>
<td></td>
<td>Reasons for choosing Russian / this university</td>
<td>- self-assessment of Russian language skills - Russian language exam grade - in comprehending learning material - in the performance of tasks</td>
<td>Questions 4, 5 of the questionnaire</td>
</tr>
<tr>
<td>Language competencies:</td>
<td>- language ability</td>
<td>- in the communication style with the teacher</td>
<td>Interview topic</td>
</tr>
<tr>
<td></td>
<td>- language difficulties</td>
<td>- in participations in the university extracurricular activities (other than academic)</td>
<td>Interview topic</td>
</tr>
<tr>
<td></td>
<td>Cultural differences</td>
<td>- experiences related to understanding and expressing in Russian - experiencing culture shock (emotional and somatic)</td>
<td>Questions 15, 16 of the questionnaire</td>
</tr>
<tr>
<td>Psychological</td>
<td>Identification as a student</td>
<td>- a sense of belonging to the community of university students</td>
<td>Question 6 of the questionnaire</td>
</tr>
<tr>
<td></td>
<td>Experiences related to language and cultural barriers</td>
<td>- satisfaction with the training program - satisfaction with distance learning</td>
<td>Interview topic, Question 7 of the questionnaire</td>
</tr>
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<td></td>
<td>Attitudes toward learning</td>
<td>- willingness to participate in extracurricular activities</td>
<td>Interview topic</td>
</tr>
<tr>
<td></td>
<td>Interest in extracurricular activities</td>
<td>- developmental self-assessment: - self-confidence - communication skills - self-organization skills - level of Russian language proficiency - understanding of the cultural particularities of other peoples</td>
<td>Question 18 of the questionnaire</td>
</tr>
</tbody>
</table>