



## OPEN ACCESS

EDITED BY  
Ahmet Güneşli,  
European University of Lefke, Turkey

REVIEWED BY  
Behcet Özınacı,  
Near East University, Cyprus  
Francisco Javier Palacios-Hidalgo,  
University of Córdoba, Spain

\*CORRESPONDENCE  
Irina Kruse  
irinakruse@yandex.com;  
kruse-ii@rudn.ru

SPECIALTY SECTION  
This article was submitted to  
Language, Culture and Diversity,  
a section of the journal  
Frontiers in Education

RECEIVED 08 June 2022  
ACCEPTED 16 August 2022  
PUBLISHED 06 September 2022

CITATION  
Kruse I, Lutskovskaia L and  
Stepanova VV (2022) Advantages and  
disadvantages of distance teaching  
in foreign language education during  
COVID-19.  
*Front. Educ.* 7:964135.  
doi: 10.3389/feduc.2022.964135

COPYRIGHT  
© 2022 Kruse, Lutskovskaia and  
Stepanova. This is an open-access  
article distributed under the terms of  
the [Creative Commons Attribution  
License \(CC BY\)](https://creativecommons.org/licenses/by/4.0/). The use, distribution  
or reproduction in other forums is  
permitted, provided the original  
author(s) and the copyright owner(s)  
are credited and that the original  
publication in this journal is cited, in  
accordance with accepted academic  
practice. No use, distribution or  
reproduction is permitted which does  
not comply with these terms.

# Advantages and disadvantages of distance teaching in foreign language education during COVID-19

Irina Kruse \*, Larisa Lutskovskaia and  
Valentina V. Stepanova

Department of Foreign Languages, Law Institute, Peoples' Friendship University of Russia – RUDN University, Moscow, Russia

This article aimed to analyze the identified advantages and disadvantages of distance education in foreign language teaching in the transition to distance learning due to the COVID-19 pandemic. The data were collected through questionnaires and observations. A total of 298 university students participated in the research. The results of this research show that (1) the quality parameters of the changes and additions to the curriculum of foreign language teaching, (2) the final evaluation of the students in these subjects conducted in distance learning compared to the results shown in the offline form, (3) the satisfaction of the students with the electronic format of academic subjects, and (4) the formation of communicative competences under the changed learning conditions. The results are based not only on the final grades in the control sections in written and oral form but also on the emotional evaluation of the distance format teaching units in foreign languages. In addition, the results have shown that a complete transition to distance education is possible at COVID as a contingency measure. The research results will help to solve problematic issues related to the organization of the educational process and the need to comply with sanitary regulations.

## KEYWORDS

COVID-19 pandemic, foreign language teaching, distance teaching, distance education, foreign language education policies

## Introduction

In the extreme conditions of the spread of coronavirus infection, secondary and higher educational institutions in Russia, following the recommendation of the Ministry of Science and Higher Education of the Russian Federation, decided to switch to a distance learning format (Kobysheva et al., 2021). Before the pandemic, this training format was used in isolated cases and mainly in the context of e-learning (Todri et al., 2020). Since the Internet platform TEAMS was already successfully used at the Peoples' Friendship University of Russia (RUDN) in educational programs, the

forced transition to distance learning did not cause serious technical difficulties or problems. All students mastered the use of educational Internet resources on the specified platform and the format of communication with teaching staff *via* company mail (Nevskaya and Kozhukhova, 2021).

The most important issues in solving the problems of an urgent transition to e-learning were the willingness of the teaching staff to provide the teaching materials and to develop the necessary competencies within the new educational format (Junus et al., 2021). On the other hand, there is a problem with the technical equipment of each student and the ability to connect to Internet resources at home. An equally important component of the transition to a new format was the need to develop skills in future professionals to master the material through distance learning in a foreign language for professional purposes (Grunis et al., 2020).

Together with the Department of Information Technology and Support specialists, the university administration has urgently organized and implemented all the necessary measures to support the teaching staff in managing the educational process under the new conditions. In consultation with the profile departments and methodological committees, recommendations were developed for adapting the curriculum to transition to distance education. One week before the start of the online training, the surveys on the availability of technical equipment were conducted in all student groups during the face-to-face sessions. Consultations were held on connecting to the classroom and the algorithm for taking a class in a new format. Since the onset of the COVID-19 pandemic, many studies have addressed the advantages and disadvantages of distance learning in higher education. However, few studies address the views of Russian higher education students (Masalimova et al., 2022). For this reason, this article aims to analyze the identified advantages and disadvantages of distance education in foreign language learning in the transition to distance education due to the pandemic COVID-19.

## Literature review

Many researchers (Puspitasari et al., 2018; Nariyati et al., 2020; Santos, 2020; Akhmadieva et al., 2021; Kuzembayeva et al., 2022; Sekyere-Asiedu et al., 2022) have pointed out that new effective teaching methods and strategies are the most important component of foreign language teaching under the changing conditions. Some studies (Chigisheva et al., 2017, 2021; Flack et al., 2020; Kitishat et al., 2020; Oyedotun, 2020; Prikhodko and Polyakova, 2020) have particularly addressed issues of overcoming the unpreparedness (both psychological and methodological-didactic) of a significant part of higher education teachers for teaching in a new format. In parallel, some studies (Ferri et al., 2020; Jacques et al., 2020; Peters et al., 2020; Soltovets et al., 2021) have examined the technological,

pedagogical, and social problems encountered in the transition to distance education. Poor Internet connections and failures (on the part of students), compounded by inadequate digital skills on the part of both teachers and students, contributed to the challenges. The situation was exacerbated by social problems related to limited space at home, as other family members also worked remotely (Ferri et al., 2020). Thus, the need to navigate the new communication format evoked stress.

At the same time, many researchers have noted the positive aspects of teaching systems connected with the transition to extensive use of digital technologies. They assert that such changes heavily contributed to transforming the entire organizational component of the higher education system (Rapanta et al., 2020; Soudien, 2020; Ivanova et al., 2022; Uzunboylu et al., 2022). The increased activity of students in the framework of videoconferences, information exchange in chat rooms, social networks, and podcasts is especially highlighted (Sá and Serpa, 2020). Hodges et al. (2020) added a new concept named emergency remote teaching (ERT) to the literature. They identified that ERT as below:

*“... emergency remote teaching (ERT) is a temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances. It involves using fully remote teaching solutions for instruction or education that would otherwise be delivered face-to-face or as blended or hybrid courses, which will return to that format once the crisis or emergency has abated.”*

Later, Huertas-Abril et al. (2021) identified a new term, “Emergency Remote Language Teaching,” after the concept of ERT of Hodges et al. (2020). This new concept emphasizes that teaching during emergencies and crises such as the pandemic caused by COVID-19 is neither remote teaching nor online teaching in the strict sense.

In previous studies, Sharma et al. (2020) examined college students’ satisfaction with online learning during the Coronavirus disease pandemic (COVID-19). Their results showed that more than half (53.5%) of the students were satisfied with online learning, while 29.7% were neutral. The results also revealed that all four domains were positively correlated with each other and with students’ overall satisfaction with learning. In multivariate analysis, female gender, WiFi as an Internet learning modality, and rating of learning dimensions were the most significant predictors of student satisfaction. In another research, Azizi et al. (2020) investigated and determined the factors influencing students’ intention to use blended learning. They found that performance expectancy (PE), effort expectancy (EE), social influence (SI), facilitating conditions (FC), hedonic motivation (HM), value for money (PV), and habit (HT) had a significant influence on students’ intention to use blended learning. In addition, the intention to use blended learning significantly impacted students’ actual use of blended learning. A study by Yilmaz İnce et al. (2020) investigated students’ knowledge and views about distance education in the COVID-19

pandemic. The results showed that participants' ability to have computers and the Internet influenced their views about distance education. [Elfirdoussi et al. \(2020\)](#) studied distance learning in Morocco during the pandemic COVID-19. This study surveyed 3,037 students enrolled in various stages of higher education programs. The results showed that students indicated that online learning was not more interesting than regular learning.

[Demuyakor \(2020\)](#) sought to determine whether Ghanaian international students in China were satisfied with "mass" online learning in higher educational institutions in Beijing, China. The study's results suggested that introducing online learning programs was very good, as most students surveyed supported the initiative. The study also found that students outside China spend as much money to buy Internet data for online learning because of COVID-19. Last but not least, the study found that the Internet connection for students in the dormitories of various universities in China is very slow. [Bozavli \(2021\)](#) examined the learning experiences of foreign language students who participated in a distance learning course during the pandemic and their beliefs about whether it is possible to learn a foreign language without school. The results showed that students believed they could not learn a foreign language without attending school. In addition, the results indicated that their digital literacy skills in distance learning are insufficient, and the students show low motivation to learn. In a recent study, [studied the expectations of university students regarding the conversion of education to distance learning during the period of COVID-19.](#) The results showed that the most important factors influencing students' feelings and convincing them to switch from classroom teaching to teaching in the distance learning model are the feeling of pleasure in distance education and a sense of self-efficacy.

[Masalimova et al. \(2022\)](#) studied students' attitudes toward distance education in COVID-19. They analyzed a total of 27 articles. Their analyses revealed that when asked to compare face-to-face and online learning techniques, students claim that online learning has the potential to compensate for any limitations caused by the pandemic. Student views and satisfaction vary widely, ranging from good to negative. Distance learning is beneficial because it allows learning anytime and from any location. Distance education is useful for both performance and learning. Distance learning contributes to many physical and mental health problems, including anxiety, anxiety, stress, and attention problems. The analysis of publications on the stated topic allowed the authors of the study to conclude that by now, the issues related to the significant difference in the organization of online learning of foreign languages and the use of educational technologies in the format of e-learning in universities during the period of restrictions due to the pandemic because of COVID-19. Issues such as the role of the professor/instructor and student groups

in improving the quality of instruction in the distance learning format, synchronization problems of interaction and qualitative parameters of feedback, and the effectiveness of pedagogical technologies in collaborative activities require further development.

## Methods

The determination of research purposes, data collection instruments, and analyses were based on the literature review conducted by the authors. To answer the research questions, we employed a quantitative research methodology in this research. For this aim, we used quantitative data collection methods (see [Table 1](#)). The authors used the methods of terminological analysis in the process of studying scientific works on the research problem. The authors applied system analysis methods to identify the problem area, determine its relevance, set goals, and generate solutions. Considering the findings of the research, the authors articulated the following hypotheses:

- (1) Adjustments introduced to the educational process organization during the transition to the e-learning format enhance the role of the teacher and determine the choice of learning technologies to form communicative competencies in the changed academic conditions based on various methods of electronic content delivery and available communication tools in the context of electronic information–educational environment.
- (2) Changing needs for learning a foreign language for communicative and professional purposes in the context of a forced transition to the distance learning format presuppose greater self-discipline of students compared to the full-time format of gaining knowledge. This is because, in the process of classroom training, there are such additional motivating factors as mandatory face-to-face presence (lack of opportunity to study the material after the session by its video record) and an evaluating reaction not only from the teacher but also from fellow students to the activity degree in the educational process of the entire group.
- (3) Changes in the conditions and communicative environment of learning a foreign language during a pandemic inevitably lead to a greater workload and emphasis on the student's self-study since a written task does not tolerate inaccurate formulations and digression from the topic. It is more strictly assessed regarding literacy and knowledge of the material.
- (4) The effectiveness of the teaching technologies applied in emergency transition to distance learning due to COVID-19 can be evaluated only after analyzing the final assessment results of students conducted in a distance format compared to the offline results regime.

TABLE 1 Survey results.

No	Question	Yes	No
1	Has the pandemic situation adjusted your educational process? If the answer is yes, please, outline the main changes	93%	17%
2	Do you think you can positively assess the actions of the Law Institute administration and the department of foreign languages to organize the educational process during the pandemic? Please, give your reasons	91%	19%
3	Are there any organizational weaknesses in the educational process that have not been resolved by the Law Institute administration and the department of foreign languages for this period? Please, indicate them	12%	88%
4	Indicate the positive and negative aspects of distance learning		
5	Your suggestions and comments concerning adjusting the online training format		

It was necessary to maintain the stable motivation of students formed (in the course of teaching) by creating conditions for active engagement of each student and teacher in the educational process in the current emergency of conversion to e-learning. The authors focused on the formulation of foundations based on the personal and professional experience of the teachers of the department concerning methods of teaching foreign languages for communicative and professional purposes and new modern technologies of teaching in a distance format (Lisitzina et al., 2015; Bennett, 2018; Lim et al., 2018; Aguilar et al., 2019; Privalova et al., 2019; Sockalingam et al., 2020; Atabekova, 2021). All types of activities previously conducted in the face-to-face teaching format, including the acquisition of new material, assessment of knowledge through evaluation and comments, preparation for midterm review and final examination, organization and management of translation practice, participation in project activities, scientific guidance in the preparation of articles, and oral presentations of students, preparation of the oral defense of theses for bachelor's and master's degrees in a foreign language had to be urgently transferred to the distance learning format.

A week before the transition to a distance learning format, the department held informative, practical sessions with teachers on the effective use of all the main functions of the Microsoft TEAMS program, which is part of the Outlook Office 365 facilities widely used in the RUDN University (Lebedeva et al., 2018; Badiozaman et al., 2020; Code et al., 2020; Hilburg et al., 2020; Khan, 2020). The lesson plan

was developed considering the teachers' feedback. During the classes conducted by the Information Technology (IT) specialist, particular attention was paid to such issues as the formation of study groups, preparation of calendar of classes, use of chat room for communicating group or personal messages, placing various files with assignments, etc.

The algorithm for organizing joint work with the Windows Office applications package was specifically set up to allow all participants of the process to simultaneously work with Word documents, Excel tables, open PowerPoint presentations, and video files. Under a specialist's guidance, the verification mode teachers practiced the screen functions, reminders, calls, invitations to class, and project activities. A special lesson was devoted to such opportunities of the educational platform as a division of work and tasks between groups of students (teams), use of applications, and joint work on a document since the express survey showed that such operations cause particular difficulties for most teachers.

During these lessons, the skills of working with the TEAMS platform were refreshed. Mobile groups of teachers were also formed, within which each participant could always receive the necessary assistance and technical support. This strengthened the confidence of the most pessimistic members. They did not have enough experience organizing the educational process for several years through the telecommunication educational and information system (TEIS RUDN).

A preliminary survey of study groups helped to reveal that only 34% have personal computers and tablets. As the TEAMS training platform can be easily downloaded to any electronic medium, the data obtained was not alarming. But the issue of Fast Internet availability across the country was on the agenda since many students announced their intention to leave Moscow and move to their permanent places of residence during the pandemic and e-learning. To provide all students with equal opportunities under the circumstances, the teacher's mandatory recording of the lesson and open access to it for each student of the study group was established.

One of the department meetings was dedicated to many issues on the urgent transfer of foreign language classes within bachelor's and master's courses to a distance format. The meeting aimed to instruct students on the format and arrangement of their homework, including the correct file name (date, student's name, group number, discipline, and teacher's name), formulation of tasks, parameters for evaluating the work, deadlines for sending the work by the student and receiving the marked paper from the teacher, the format of students' progress sheets and participating in a lesson in a distance format, etc.

## Results and discussion

The positions listed above, worked out by the teaching staff of the department of foreign languages of the Law Institute of the

Peoples' Friendship University of Russia, contributed to meeting the program requirements and maintaining the standards of teaching foreign languages to lawyers to be.

After 3 months of work, the team of authors surveyed students and teachers. Its purpose was to identify the level of qualitative assessment by students of the activities of the Law Institute administration and the department of foreign languages in overcoming the challenges of the emergency transition to the e-learning mode. The information obtained was checked for consistency and reliability at the analysis stage. The formulated questions for students reflect the key points related to the research statement. The data obtained in the study were statistically processed and analyzed, which formed the basis for formulating proposals for adjusting the program materials.

As the survey of teachers and students after 3 months of working in the distance format showed, the technical aspects worked out in advance. They voiced that the first organizational lessons dramatically contributed to maintaining the level of motivation formed during the face-to-face studies. The survey involved students taking the undergraduate and graduate programs at the Law Institute and those who study a foreign language for communicative and professional purposes. The answers to the questionnaire were received from 204 respondents.

In total, 93% of the respondents gave a positive answer to the first item of the questionnaire. In the comments on the positive and negative aspects of the distance learning format, the following main problems that students faced in the process of the emergency transition to a remote learning format have been highlighted:

- (1) Loss of personal contact with the teacher–78%.
- (2) Concentration difficulties during preparation for classes at home (distractions in the limited living space)–67%.
- (3) Lower individual activity in class (interference of family members who are also in self-isolation)–58%.
- (4) Many serious problems associated with the constant use of the Internet to connect to the TEAMS training platform: lack of Internet and interruptions in Internet connection (especially outside Moscow and Moscow region)–79%; unreasonably high time loss during classes for constant reconnection to the platform–63%; worse health conditions due to continuous sitting in front of monitors (more than 12 h a day)–81%.
- (5) Stress (68%) leads to increased psychological frustration (54%) due to the need to periodically turn on the camera and microphone during the oral answer.

In the answers to the second question, most students (91%) positively assessed the efforts of the Law Institute administration and the entire team of the department of foreign languages in an efficient and thoughtfully organized format of the transition of the educational process to a remote mode. The transition process took only a week; the classes were held strictly according

to the schedule approved at the beginning of the semester. 74% of respondents highly appreciated that all the necessary electronic links came by email in advance and with a 15-min reminder before the start of the lesson.

All files with carefully formulated assignments and specified deadlines were sent to students in advance; this contributed to a clear algorithm allowing them to receive the marked papers to better prepare for the forthcoming session (86%). Seventy-seven percentage of students positively assessed the efforts of the department of foreign languages to offer interesting project assignments and to involve students in professionally oriented research activities during a difficult period of emergency transition to the e-learning format.

All survey participants supported video recording the lessons as another chance to view and study the educational material.

At the same time, 14% of students' answers concerning organizational shortcomings (third question in the Table) indicated cases of informing "at the last minute," that greatly hindered planning the workload and increased online learning. An important aspect noted by 45% of respondents was the academic schedule. Students criticized it for the uneven distribution of lectures and seminars throughout the week.

The following suggestions for adjustments to the format of online education of law students have been formulated:

- (1) Preserving in a distance format the possibility of counseling with teachers according to the schedule approved at the beginning of the semester for classroom format (60%).
- (2) Taking account of the students' answers sent in the chat room in case of problems with the microphone during the lesson (36%).

The authors also conducted an express survey among the foreign languages teaching staff department. The obtained data revealed the problems that arose during the preparation and conduct of distance learning sessions. The majority (84%) noted the stressful situation of the need to move to a new teaching format and search for new solutions in the context of familiar teaching tasks. For older teachers (53%), difficulties were associated with mastering unfamiliar electronic platforms and using new technological methods of working in a digital environment to "keep in step with the times." Ninety-three percentage of respondents expressed concerns about the organization and conduct of upcoming intermediate and final assessments of students in a distance format. They were connected not with designing control and assessment materials but primarily with the video support of the oral and written testing to exclude cheating and prompts.

The annual students' conference "We speak legal English, French, German, Spanish, Chinese, Korean, Japanese, and Arabic" was held in a distance format engaging RUDN students and postgraduates from more than a dozen countries, as well as



students from other universities in Moscow and across Russia. In preparation for the conference, individual work was carried out with each participant to comply with the requirements for article formatting according to American Psychological Association (APA) international standards. Particular attention was paid to the preparation of oral presentations using PowerPoint tools. The following points were positively noted in the responses of the conference participants:

- (1) Comprehensive and timely assistance from the faculty of the department of foreign languages via the TEAMS platform.
- (2) Timely receipt of an electronic link for connection, automatic notification of the beginning of the conference, and technical support in case of problems associated with various operating systems.
- (3) Ability to automatically turn on subtitles during the conference broadcast.

TABLE 2 Final exam results at bachelor level.

Grades	2019 (n = 145)	2020 (n = 142)
Excellent	75%	74%
Good	24%	24%
Fair/satisfactory	1%	2%
Poor/unsatisfactory	-	-

TABLE 3 Final exam results at master level.

Grades	2019 (n = 76)	2020 (n = 80)
Excellent	77%	76%
Good	21%	20%
Fair/satisfactory	2%	4%
Poor/unsatisfactory	-	-

TABLE 4 Results of *defending* the final qualifying work in the foreign languages at the bachelor level.

Grades	2019 (n = 132)	2020 (n = 139)
Excellent	81%	79%
Good	17%	18%
Fair/satisfactory	2%	3%
Poor/unsatisfactory	-	-

TABLE 5 Results of *defending* the final qualifying work in the foreign languages at the master level.

Grades	2019 (n = 103)	2020 (n = 119)
Excellent	75%	74%
Good	21%	20%
Fair/satisfactory	4%	6%
Poor/unsatisfactory	-	-

- (4) Ability to share the screen and presentation files in case of problems related to the Internet.
- (5) Use of video conference recording.

When analyzing the final assessment results at the end of the semester, the authors of the study took into account the adequate response of the university to an external challenge and the complete transition to distance learning provoked by a coronavirus. We can assert that electronic content designed to solve the above difficulties did not allow within a short time to create a full-fledged “mobile interactive student-centered online environment” (Azizi et al., 2020; Sharma et al., 2020). This triggered a high degree of caution in assessing the effectiveness of distance learning based on the results obtained during the forced experimental emergency transition to e-learning (Adnan and Anwar, 2020; Watson et al., 2020; Cahyadi et al., 2021).

The comparative analysis of the results of the final exams for bachelor’s and master’s degrees for 2019 (before the pandemic) and 2020 (in the distance format) did not reveal important changes in the grades (Tables 2–5).

The final scores obtained for the *defense* of the last qualifying works in the relevant foreign language (English, German, French, Spanish, Chinese, Korean, Arabic, and Japanese) at bachelor’s and master’s levels allowed to conclude that the forced emergency transition to a distance learning format did not affect the quality of students’ answers.

## Conclusion

In evaluating the advantages and disadvantages of distance learning for law students in a foreign language in the new educational reality created by COVID-19, the authors of the study have tried to take into account all circumstances that could affect the achievement of sound conclusions. In such a short period of time, it is impossible to completely exclude the influence of external factors on the experimental results, which reduces the significance of approaches that are identical in content but different in form. The authors considered the difference in control and assessment materials and the students’ final assessment conditions. The limited time frame did not allow the authors to fully analyze the experimentally formed samples for each technology in the distance learning model. In analyzing the parameters of distance learning effectiveness, the main focus was tracking the qualitative indicators of student performance compared to the results achieved in traditional face-to-face classes. The authors of this study were aware of the fact that the data obtained had to be more focused on the analysis of prerequisites, needs, and processes than on the evaluation of outcomes (Hannila et al., 2019; Rentes et al., 2019; Beier et al., 2020; Schöbel et al., 2020). Accordingly, in this case, the efficiency level was defined as the ratio of outcomes to resources expended, considering the urgency of the tasks.

It was important to conclude the current emergency and, based on the obtained results, to organize consistent, systematic work to avoid deficits in future distance education (Carballal et al., 2019; Golant, 2019; Puttinaovarat and Horkaew, 2020; Yulia, 2020; Kuso et al., 2021). At the same time, in the course of the study, the authors were able to find sufficient evidence that the transition to distance education at the Department of Foreign Languages of the Law Institute of RUDN College was made without excessive difficulties and on time due to the sufficient development of the IT infrastructure for technical support. The necessary competencies of the department's teaching staff provided the basis for transferring the learning process to an online format to accomplish the tasks set.

The study identified the key transition phases that presented the greatest challenges for students and faculty. In this context, special attention was paid to the organizational mechanisms of the transition phase. The analysis of the problems encountered and their underlying reasons, as well as the data obtained on the effectiveness of the transition to the distance education format for foreign language teaching, contributed to the conclusion that the distance education format has become a reality in higher education. This fact makes it necessary to equip the college with modern means for e-learning and entrust IT professionals with the design of teaching materials, grade sheets, and student journals in electronic format. Retraining teaching staff and adapting educational programs to the latest innovations are no less important.

As practice has shown, the main advantage of distance learning of a foreign language is the formation of competencies in the field of information technologies among teachers and students; this provides great opportunities for access to modern electronic resources and various digital tools. Based on the obtained results, the study's authors concluded that the period of enforced distance education did not negatively affect the quality of foreign language teaching for communicative and professional purposes for college students. This period helped to introduce the best practices to new realities (Irvine and Dane, 2020; Hessburg et al., 2021; Reed et al., 2021; Rienda and Alves, 2021) and apply new high-tech educational methods under the new socioeconomic conditions created by the spread of coronavirus infection (Javaid et al., 2020; Moss and Metcalf, 2020; Abdel-Basset et al., 2021; Antonopoulou et al., 2021).

The distance education format is a given reality without which 21st-century education and the future are unimaginable. However, it cannot completely replace traditional academic education at universities. The authors support the views of scholars who have described the function of the distance education format as supplementing, broadening, and deepening traditional college education (Atabekova, 2020; Gallagher, 2020; Medela and Picon, 2020; Zakharova et al., 2020). Most students in the field of foreign languages believe that e-learning, despite its popularity and extensive use, cannot replace face-to-face interaction between teacher and student in

the classroom, cannot create an atmosphere of the traditional academic environment, and cannot replace the circle of student communication.

## Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

## Ethics statement

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. Written informed consent from the participants was not required to participate in this study in accordance with the national legislation and institutional requirements.

## Author contributions

All authors have sufficiently contributed to the study, agreed with the results and conclusion, and approved the submitted version.

## Acknowledgments

This manuscript has been prepared with the support of the RUDN Program "Priority 2030/Program for Comprehensive Development 2025."

## Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

## Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

## References

- Abdel-Basset, M., Chang, V., and Nabeeh, N. A. (2021). An intelligent framework using disruptive technologies for COVID-19 analysis. *Technol. Forecast. Soc. Change* 163:120431. doi: 10.1016/j.techfore.2020.120431
- Adnan, M., and Anwar, K. (2020). Online learning amid the COVID-19 pandemic: Students' perspectives. *J. Pedagog. Sociol. Psychol.* 2, 45–51. doi: 10.33902/JSP.2020261309
- Aguilar, P., Lopez-Cobo, I., Cuadrado, F., and Benitez, I. (2019). Social and emotional competences in Spain: A comparative evaluation between Spanish needs and an international framework based on the experiences of researchers, teachers, and policymakers. *Front. Psychol.* 10:2127. doi: 10.3389/fpsyg.2019.02127
- Akhmadieva, R. S., Mikhaylovsky, M. N., Simonova, M. M., Nizamutdinova, S. M., Prokopyev, A. I., and Ostanina, S. S. (2021). Public relations in organizations in sportsman students view: Development of management tools or healthy and friendly relations formation. *J. Hum. Sport Exerc.* 16, 1272–1279. doi: 10.14198/jhse.2021.16.Proc3.43
- Antonopoulou, H., Halkiopoulos, C., Barlou, O., and Beligiannis, G. N. (2021). Transformational leadership and digital skills in higher education institutes: During the COVID-19 pandemic. *Emerg. Sci. J.* 5, 1–15. doi: 10.28991/esj-2021-01252
- Atabekova, A. (2020). University discourse to foster youth's sustainability in society amidst COVID19: International and Russian features. *Sustainability* 12:7336. doi: 10.3390/su12187336
- Atabekova, A. (2021). Employers' contribution to law students' multilingual communication skills training in remote mode due to pandemic emergency: Pilot study. *J. Soc. Stud. Educ. Res.* 12, 396–431.
- Azizi, S. M., Roobahani, N., and Khatony, A. (2020). Factors affecting the acceptance of blended learning in medical education: Application of UTAUT2 model. *BMC Med. Educ.* 20:367. doi: 10.1186/s12909-020-02302-2
- Badiozaman, I. F. A., Leong, H. J., and Wong, W. (2020). Embracing educational disruption: A case study in making the shift to a remote learning environment. *J. Appl. Res. High. Educ.* 12, 1–15. doi: 10.1108/JARHE-08-2020-0256
- Beier, G., Ullrich, A., Niehoff, S., Reißig, M., and Habich, M. (2020). Industry 4.0: How it is defined from a sociotechnical perspective and how much sustainability it includes—A literature review. *J. Clean. Prod.* 259:120856. doi: 10.1016/j.jclepro.2020.120856
- Bennett, E. (2018). A simple, practical framework for organizing relationship-based reciprocity in service-learning experiences: Insights from anthropology. *Int. J. Res. Serv. Learn. Commun. Engag.* 6:2. doi: 10.37333/001c.6999
- Bozavli, E. (2021). Is foreign language teaching possible without school? Distance learning experiences of foreign language students at Ataturk University during the COVID-19 pandemic (April 14, 2021). *Arab World Engl. J. (AWEJ)*. 12, 3–18. doi: 10.24093/awej/vol12no1.1
- Cahyadi, A., Widyastuti, S., and Mufidah, V. N. (2021). Emergency remote teaching evaluation of the higher education in Indonesia. *Heliyon* 7:e07788. doi: 10.1016/j.heliyon.2021.e07788
- Carballal, A., Fernandez-Lozano, C., Rodriguez-Fernandez, N., Castro, L., and Santos, A. (2019). Avoiding the inherent limitations in datasets used for measuring aesthetics when using a machine learning approach. *Complexity* 1:4659809. doi: 10.1155/2019/4659809
- Chigisheva, O., Soltovets, E., and Bondarenko, A. (2017). Functional foreign language literacy for global research career development: Analysis of standardized open-ended interview responses. *XLinguae* 10, 138–153. doi: 10.18355/XL.2017.10.04.12
- Chigisheva, O., Soltovets, E., Dmitrova, A., Akhtyan, A. G., Litvinova, S. N., and Chelysheva, Y. V. (2021). Digital literacy and its relevance to comparative education researchers: Outcomes of SciVal Analytics. *Eurasia J. Math. Sci. Technol. Educ.* 17:em2017. doi: 10.29333/ejmste/11183
- Code, J., Ralph, R., and Forde, K. (2020). Pandemic designs for the future: Perspectives of technology education teachers during COVID-19. *Inf. Learn. Sci.* 22, 170–189. doi: 10.1108/ILS-04-2020-0112
- Demuyakor, J. (2020). Coronavirus (COVID-19) and online learning in higher institutions of education: A survey of the perceptions of Ghanaian international students in China. *Online J. Commun. Media Technol.* 10, e202018. doi: 10.29333/ojcm/8286
- Elfirdoussi, S., Lachgar, M., Kabaili, H., Rochdi, A., Goujdami, D., and El Firdoussi, L. (2020). Assessing distance learning in higher education during the COVID-19 pandemic. *Educ. Res. Int.* 2020:8890633. doi: 10.1155/2020/8890633
- Ferri, F., Grifoni, P., and Guzzo, T. (2020). Online learning and emergency remote teaching: Opportunities and challenges in emergency situations. *Societies* 10, 86–96. doi: 10.3390/soc10040086
- Flack, C. B., Walker, L., Bickerstaff, A., Earle, H., and Margetts, C. (2020). *Educator perspectives on the impact of COVID-19 on teaching and learning in Australia and New Zealand*. Essendon: Pivot Professional Learning.
- Gallagher, S. R. (2020). *The future of university credentials: New developments at the intersection of higher education and hiring*. Cambridge, MA: Harvard Education Press.
- Golant, S. M. (2019). Stop bashing the suburbs: Mobility limitations of older residents are less relevant as connectivity options expand. *J. Aging Stud.* 50:100793. doi: 10.1016/j.jaging.2019.100793
- Grunis, M. L., Golovanova, I. I., Kirilova, G. I., Levina, E. Y., and Sizova, Z. M. (2020). Transformation of pedagogical communicative competence during credit digital online courses. *Contemp. Educ. Technol.* 13:e289. doi: 10.30935/cedtech/9313
- Hannila, H., Koskinen, J., Harkonen, J., and Haapasalo, H. (2019). Product-level profitability: Current challenges and preconditions for data-driven, fact-based product portfolio management. *J. Enterp. Inf. Manag.* 10, 292–308. doi: 10.1108/JEIM-05-2019-0127
- Hessburg, P. F., Prichard, S. J., Hagmann, R. K., Povak, N. A., and Lake, F. K. (2021). Wildfire and climate change adaptation of western North American forests: A case for intentional management. *Ecol. Appl.* 31:e02432. doi: 10.1002/eap.2432
- Hilburg, R., Patel, N., Ambruso, S., Biewald, M. A., and Farouk, S. S. (2020). Medical education during the coronavirus disease-2019 pandemic: Learning from a distance. *Adv. Chron. Kidney Dis.* 27, 412–417. doi: 10.1053/j.ackd.2020.05.017
- Hodges, C., Moore, S., Locke, B., Trust, T., and Bond, A. (2020). *The difference between emergency remote teaching and online learning*. *EDUCAUSE Review*. Available online at: <https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning> (accessed August 1, 2022).
- Huertas-Abril, C. A., Palacios-Hidalgo, F. J., and Gómez-Parra, M. E. (2021). Designing materials for emergency remote language teaching contexts: A qualitative study of pre-service teachers' experiences. *Teach. Engl. Second Lang. Electron. J.* 25, 18.
- Irvine, D. J., and Dane, E. L. (2020). Enhancing cancer immunotherapy with nanomedicine. *Nat. Rev. Immunol.* 20, 321–334. doi: 10.1038/s41577-019-0269-6
- Ivanova, S. S., Aksoy, Y. Ü, Krasilnikova, Y. S., Mashkin, N. A., Chizh, N. V., and Knyazeva, S. A. (2022). People's views of hygiene and personal care during COVID-19 outbreak. *Eurasia J. Math. Sci. Technol. Educ.* 18:em2101. doi: 10.29333/ejmste/11944
- Jacques, S., Ouahabi, A., and Lequeu, T. (2020). Remote knowledge acquisition and assessment during the COVID-19 pandemic. *Int. J. Eng. Pedagog.* 10, 120–138. doi: 10.3991/ijep.v10i6.16205
- Javaid, M., Haleem, A., Vaishya, R., Bahl, S., Suman, R., and Vaish, A. (2020). Industry 4.0 technologies and their applications in fighting COVID-19 pandemic. *Diabetes Metab. Syndr. Clin. Res. Rev.* 14, 419–422. doi: 10.1016/j.dsx.2020.04.032
- Junus, K., Santoso, H. B., Putra, P. O. H., Gandhi, A., and Siswantining, T. (2021). Lecturer readiness for online classes during the pandemic: A survey research. *Educ. Sci.* 11:139. doi: 10.3390/educsci11030139
- Khan, H. (2020). An adaptation of Peyton's 4-stage approach to deliver clinical skills teaching remotely. *MedEdPublish* 9, 73–82. doi: 10.15694/mep.2020.000073.1
- Kitishat, A. R., Al Omar, K. H., and Al Momani, M. A. K. (2020). The Covid-19 crisis and distance learning: E-teaching of language between reality and challenges. *Asian ESP J.* 16, 316–326.
- Kobysheva, L., Luginina, A., Gafiatulina, N., and Artamonova, Y. (2021). Organization of higher education in context of digitalization: Online learning experience at pandemic, development trends. *E3s Web Conf.* 273:12052. doi: 10.1051/e3sconf/202127312052
- Kuso, S., Nitsch, M., Zeiler, M., Simek, M., Adamcik, T., Dey, M., et al. (2021). Stakeholders' views on online interventions to prevent common mental health disorders in adults implemented into existing healthcare systems in Europe. *Eur. J. Public Health* 31, 55–63. doi: 10.1093/eurpub/ckab043
- Kuzembayeva, G., Umarova, A., Maydangalieva, Z., Gorbatenko, O., Kalashnikova, E., Kalmazova, N., et al. (2022). Content and language integrated learning practices in Kazakhstan secondary schools during COVID-19 pandemic. *Contemp. Educ. Technol.* 14:e362. doi: 10.30935/cedtech/11733



- Lebedeva, O., Bykova, S., Masalimova, A. R., Sokolova, N. L., and Kryukova, N. I. (2018). Peculiarities of developing high school students' lexical skills by means of the programmed learning technology. *XLinguae* 11, 186–202. doi: 10.18355/XL.2018.11.01.16
- Lim, C., Kim, K. H., Kim, M. J., Heo, J. Y., Kim, K. J., and Maglio, P. P. (2018). From data to value: A nine-factor framework for data-based value creation in information-intensive services. *Int. J. Inf. Manag.* 39, 121–135. doi: 10.1016/j.ijinfomgt.2017.12.007
- Lisitzina, T. B., Kovaleva, N. I., Shaikhislamov, A. K., Minsabirova, V. N., Shaidullina, A. R., Pavlova, N. A., et al. (2015). Practical recommendations for the teachers on optimization process of the students majoring in tourism. *Asian Soc. Sci.* 11, 154–158. doi: 10.5539/ass.v11n1p154
- Masalimova, A. R., Khvatova, M. A., Chikileva, L. S., Zvyagintseva, E. P., Stepanova, V. V., and Melnik, M. V. (2022). Distance learning in higher education during Covid-19. *Front. Educ.* 7:822958. doi: 10.3389/feduc.2022.822958
- Medela, A., and Picon, A. (2020). Constellation loss: Improving the efficiency of deep metric learning loss functions for the optimal embedding of histopathological images. *J. Pathol. Inf.* 11, 38–43. doi: 10.4103/jpi.jpi\_41\_20
- Moss, E., and Metcalf, J. (2020). High tech, high risk: Tech ethics lessons for the COVID-19 pandemic response. *Patterns* 1:100102. doi: 10.1016/j.patter.2020.100102
- Nariyati, N. P. L., Sudirman, N. P., and Pratiwi, A. (2020). EFL pre-service teacher's perception toward the use of mobile assisted language learning in teaching English. *Int. J. Lang. Educ.* 4, 38–47. doi: 10.26858/ijole.v4i2.10052
- Nevskaya, E. Y., and Kozhukhova, Y. V. (2021). Teaching the course "Chemistry" at RUDN University in the context of distance learning. *Sviridov Read.* 1:129.
- Oyedotun, T. D. (2020). Sudden change of pedagogy in education driven by COVID-19: Perspectives and evaluation from a developing country. *Res. Global.* 2:100029. doi: 10.1016/j.resglo.2020.100029
- Peters, M. A., Rizvi, F., McCulloch, G., Gibbs, P., Gorur, R., Hong, M., et al. (2020). Reimagining the new pedagogical possibilities for universities post-Covid-19: An EPAT Collective Project. *Educ. Philos. Theory* 1, 1–44. doi: 10.1111/j.1469-5812.1969.tb00346.x
- Prikhodko, V., and Polyakova, T. (2020). "IGIP Prototype curriculum, teachers' professional development and distance education in Russia during COVID-19 pandemic," in *International conference on interactive collaborative learning*, eds M. E. Auer and T. Rüttemann (Cham: Springer), 36–43. doi: 10.1007/978-3-030-68201-9\_4
- Privalova, I. V., Shaidullina, A. R., Zheltukhina, M. R., Grinberg, T. E., and Caselles, C. G. (2019). Coerced loss of national colorings – Linguistic issues of virtual team communication. *XLinguae* 12, 151–164. doi: 10.18355/XL.2019.12.01.12
- Puspitasari, R., Lestariyana, P. D., and Widodo, H. P. (2018). Engaging young learners of English with digital stories: Learning to mean. *Indones. J. Appl. Linguist.* 2, 489–495. doi: 10.17509/ijal.v8i2.13314
- Puttinaovarat, S., and Horkaew, P. (2020). Flood forecasting system based on integrated big and crowdsourced data by using machine learning techniques. *IEEE Access* 8, 5885–5905. doi: 10.1109/ACCESS.2019.2963819
- Rapanta, C., Botturi, L., Goodyear, P., Guàrdia, L., and Koole, M. (2020). Online university teaching during and after the Covid-19 crisis: Refocusing teacher presence and learning activity. *Postdigital Sci. Educ.* 2, 923–945. doi: 10.1007/s42438-020-00155-y
- Reed, M. S., Ferre, M., Martin-Ortega, J., Blanche, R., Lawford-Rolfe, R., Dallimer, M., et al. (2021). Evaluating impact from research: A methodological framework. *Res. Policy* 50:104147. doi: 10.1016/j.respol.2020.104147
- Rentes, V. C., de Pádua, S. I. D., Coelho, E. B., Cintra, M. A., de, C. T., Ilana, G. F., et al. (2019). Implementation of a strategic planning process oriented towards promoting business process management (BPM) at a clinical research centre (CRC). *Bus. Process Manag. J.* 25, 707–737. doi: 10.1108/BPMJ-08-2016-0169
- Rienda, I. C., and Alves, C. A. (2021). Road dust resuspension: A review. *Atmos. Res.* 1:105740. doi: 10.1016/j.atmosres.2021.105740
- Sá, M. J., and Serpa, S. (2020). The COVID-19 pandemic as an opportunity to foster the sustainable development of teaching in higher education. *Sustainability* 12:8525. doi: 10.3390/su12208525
- Santos, L. M. (2020). The discussion of communicative language teaching approach in language classrooms. *J. Educ. e-Learning Res.* 7, 104–109. doi: 10.20448/journal.509.2020.72.104.109
- Schöbel, C., Werther, S., Teschler, H., and Taube, C. (2020). Telemedicine in respiratory sleep medicine: COVID-19 pandemic unmasks the need for a process-oriented, replicable approach for implementation in clinical routine. *J. Thoracic Dis.* 12:S261. doi: 10.21037/jtd-cus-2020-011
- Sekyere-Asiedu, D., Mashkin, N. A., Mochelevskaya, E. V., Petrova, M. G., and Zheltukhina, M. R. (2022). Determining the readiness of the mechanical engineering programme candidates for distance education. *Int. J. Eng. Pedagog.* 12, 101–114. doi: 10.3991/ijep.v12i2.29319
- Sharma, K., Deo, G., Timalisina, S., Joshi, A., Shrestha, N., and Neupane, H. C. (2020). Online learning in the face of COVID-19 pandemic: Assessment of students' satisfaction at Chitwan medical college of Nepal. *Kathmandu Univ. Med. J.* 18, 40–47. doi: 10.3126/kumj.v18i2.32943
- Sockalingam, S., Chaudhary, Z. K., Barnett, R., Lazor, J., and Mylopoulos, M. (2020). Developing a framework of integrated competencies for adaptive expertise in integrated physical and mental health care. *Teach. Learn. Med.* 32, 159–167. doi: 10.1080/10401334.2019.1654387
- Soltovets, E., Chigisheva, O., Dubover, D., and Dmitrova, A. (2021). Russian digital education landscape during the current pandemic: Is the impact felt? *E3S Web Conf.* 273:12026. doi: 10.1051/e3sconf/202127312026
- Soudien, C. (2020). Complexities of difference and their significance for managing inequality in learning: Lessons from the COVID-19 crisis. *Prospects* 49, 59–67. doi: 10.1007/s11125-020-09486-x
- Todri, A., Papajorgji, P., Moskowitz, H., and Scalera, F. (2020). Perceptions regarding distance learning in higher education, smoothing the transition. *Contemp. Educ. Technol.* 13:e287. doi: 10.30935/cedtech/9274
- Uzunboylyu, H., Prokopyev, A. I., Kashina, S. G., Makarova, E. V., Chizh, N. V., and Sakhieva, R. G. (2022). Determining the opinions of university students on the education they receive with technology during the pandemic process. *Int. J. Eng. Pedagog.* 12, 48–61. doi: 10.3991/ijep.v12i2.29329
- Watson, D. P., Brucker, K., McGuire, A., Snow-Hill, N. L., Xu, H., Cohen, A., et al. (2020). Replication of an emergency department-based recovery coaching intervention and pilot testing of pragmatic trial protocols within the context of Indiana's Opioid State Targeted Response plan. *J. Subst. Abuse Treat.* 108, 88–94. doi: 10.1016/j.jsat.2019.06.002
- Yılmaz İnce, E., Kabul, A., and Diler, I. (2020). Distance education in higher education in the COVID-19 pandemic process: A case of Isparta Applied Sciences University. *Int. J. Technol. Educ. Sci.* 4, 343–351. doi: 10.46328/ijtes.v4i.4.112
- Yulia, H. (2020). Online learning to prevent the spread of pandemic corona virus in Indonesia. *ETERNAL* 11, 48–56. doi: 10.26877/eternal.v11i1.6068
- Zakharova, N., Vlasova, I., and Kartavtseva, O. (2020). Technologies of tutorial assistance in the visual activity distance education for the bachelors-designers. *E3S Web Conf. EDP Sci.* 210:22014. doi: 10.1051/e3sconf/202021022014