

# Evaluation of the Cluster Approach in Teaching Foreign Languages in Distance Education Environment

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## Abstract

This article aimed to analyze the identified advantages and disadvantages of the use of cluster approach in distance education to teach foreign languages. The data were collected through questionnaires and observations. A total of 100 university students participated in the research. The results of this research show the characteristic features of the following aspects: (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 and cluster approach compared to the results shown in the offline form and traditional approach, (3) the satisfaction of the students with the electronic format of academic subjects and professional motivation raised from the use of cluster approach, and (4) the formation of professional communicative competences under the changed learning conditions. The results are based not only on the final grades' criteria 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 in its combination with cluster approach can never be fully realized because of certain reasons and specifics of the second. 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

Cluster approach, distance education, method, foreign language, curriculum, professional motivation, electronic format, academic subject, evaluation.

## Introduction

The global development of technologies and their penetration into various areas of common life has a direct impact on the formation of a modern educational sphere. Traditional forms of teaching no longer satisfy the current needs of modern students. The accelerated pace of modern life and the constant lack of time dictate the search for other ways of learning. The article deals with some aspects of distance learning education while teaching foreign languages using cluster approach to the process in general. These issues of the topic are analyzed in detail and some possible implementations, recommendations and solutions are described from the point of view of teaching modern students in language classroom, in particular. 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). Moreover, in modern methodology of teaching foreign languages the professional purposes are mostly associated with the use of cluster approach ().

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## 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. The research papers of the mentioned scientists cover the issue of the use of cluster approach in some spheres of education, focusing on humanities and arts.

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.

At the same time, many researchers have noted the positive aspects of cluster approach 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 "... 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."

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 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. 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 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 Yılmaz Ince et al. (2020) investigated students' knowledge and views about distance education in the pandemic and the use of cluster approach in parallel with the distance learning process. The results showed that participants' ability to have computers and the Internet influenced their views about distance education and that it is difficult to implement cluster approach totally with the distance approach, as these two notions contradict each other in many ways.

Elfirdoussi et al. (2020) studied distance learning in Morocco. 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.

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.

Masalimova et al. (2022) studied students' attitudes toward distance education. 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, stress, and attention problems. 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. 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 while using cluster approach 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 cluster approach applied in emergency transition to distance learning can be evaluated only after analyzing the final assessment results of students conducted in a distance format compared to the offline results regime.

## Motivation – Cluster Approach and Distance Education

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.

## Results and discussion

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 department of the English language and literature in overcoming the challenges of the emergency transition to the e-learning mode with the use of cluster approach to raise professional motivation and develop specific practical skills of the students. 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 100 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) Higher professional activity outside of the class (development of practical skills on the workplace)–48%.
- (5) Many serious problems associated with the constant use of the Internet to connect to the training platform: lack of Internet and interruptions in Internet connection–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 hours a day)–81%.
- (6) 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 administration and the entire team of the department 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 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.

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).

## 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.

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