



**THE DISTINCTIVE FEATURES OF ONLINE LEARNING
AND LEARNING USING DISTANCE LEARNING
TECHNOLOGIES IN EXTREME PANDEMIC CONDITIONS**



Казанский федеральный
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CASE STUDY: APPROACHES TO ASSESSING THE DISTANCE LEARNING EFFECTIVENESS

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Well-planned online learning experiences are significantly different from courses offered as emergency distance education in response to the threat of COVID-19.

Due to the threat of COVID-19, universities are facing tough decisions about how to continue the educational process while keeping their faculty, staff, and students safe.

Many universities have chosen to terminate all face-to-face (F2F) lectures, including workshops and other learning experiences, and have mandated that faculty move their courses online to help prevent the spread of the COVID-19.

Universities working to maintain instruction during the COVID-19 pandemic should understand differences when evaluating this emergency remote education.

- 31% of students are unhappy with educational programs and consider them obsolete;
- 55% of students say universities offer little practice;
- 41% of students noted the distance between education and labour market requirements;
- 91% of employers say university graduates lack practical knowledge and skills;
- 21% of teachers use online courses in their disciplines

Moving education to the remote can enable teaching flexibility and learning “on the fly” but the speed with which this move to remote education is expected to happen is exceptional and shocking.

In the extreme circumstances because of the educational process with limited internal and external resources, very different evaluation criteria have come to the fore.

They can be divided into four areas:

- the context(s) change assessment;
- the feasibility and cost-effectiveness change assessment;
- the processes and results(s) change evaluation;
- the direct and by-product change evaluation.



The analysis used data from sociological research on students' and educators' attitude to remote education during a pandemic, analytical and information material of university bibliographic sources.

Secondary analysis and results interpretation of the sociological surveys, systematization and classification of the theoretical and realistic materials used were carried out, management practices' analysis and the universities' experience in the context of extreme remote transitions, including in comparison with foreign universities.



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

When we observe the educational planning in crises, it is obvious that these situations require creative problem solving: we have to be able to generate various possible solutions that help to meet the new needs of our learners and in most cases, it might even help us to generate some new solutions to intractable problems.

Thus, it may be tempting to think about emergency remote education as an essential approach to standard instruction. In reality, it is a way of thinking about delivery modes, methods, and specifically as they map to rapidly changing needs and limitations in resources, such as faculty support and training

The almost instantaneous transition to emergency remote education first required several radical changes in the educational process organization:

- postpone to the next academic year courses that cannot be delivered remotely;
- create conditions for the individualization of educational trajectories, taking into account significant changes in the individual circumstances and the education environment;
- Transfer the instruction for each course into one of two modes: (1) internal study mode «remote» or (2) external study mode.

However, some universities, lacking a developed digital education environment, used mostly asynchronous teaching technologies when students were sent out assignments and then the completed works were collected for checking by e-mail.

- 55% have received only a list of literature recommended for self-study in at least one discipline (15% say that this format is chosen by the teachers of all subjects they study).
- 28% of educational programmes were partly or fully implemented using courses presented on online platforms (more in bachelor's programmes).
- 57 % of students were taught by videoconference which was actively used by universities;
- Between March and May, the proportion of students without subjects who are taught through video communication programmes has more than halved (from 41% to 17%).

It is important that the increase in the number of subjects taught in this format has occurred in different types of universities (not only in the leading ones). A common feature of universities with a synchronous and asynchronous educational regime is a sharp increase in independent students' work.

- 95% studied the teaching materials sent by the teachers themselves.
- 53% of students used digital learning management systems to organize their own educational work, indicating that these systems are not sufficiently functional.
- 49% of universities are fully equipped with digital library resources in all educational programmes.
- 11 % of these resources can be integrated with foreign databases.

In a pandemic environment, significant and rapid improvements in infrastructure were not possible. Therefore, the Ministry of Education and Science and leading universities have chosen a strategy to actively mobilize existing digital educational platforms, as well as digital service providers, to support universities that do not have the infrastructure to organize the remote educational process.

- 13% of universities lack even minimal infrastructure (no high-speed Internet access, no specialized data storage systems for information systems);
- 44% of universities had licenses for synchronous collaborative software (ZOOM type);
- 11% of universities have a digital infrastructure sufficient to provide full-time online learning and to host content with their own capacity;
- 88.51% of dormitories were connected to the Internet;
- 88% of universities have digital learning management systems (LMS);
- 45% of universities have indicators that correspond to the real use of LMS for educational activities

In general, the higher education system has been able to create conditions for the provision of remote education for the students' majority.

Among the universities' the main solutions for the development of their own digital infrastructure in this period can be highlighted:

- rapid scaling and implementation of information systems and services (LMS-systems, videoconferencing organization, and teamwork systems) are already available in universities, but working in separate departments or in a test mode;
- increase the performance of cloud services used for mass distance learning (transition to higher fees, purchase of additional licenses);
- teacher and employee assistance (methodical and sometimes resource-based) to complete the individual technological infrastructure;
- centralized acquisition of access to cloud services (Zoom, MS Teams, etc.);
- increased performance of Internet access channels, etc.

At the same time, two different trends are expected to influence further post-pandemic development of digital education:

1. a large proportion of universities have learned and adapted to the new realities of distance education, have learned lessons, and are now much better prepared to take advantage of digitization, seeing it as a promising one;
2. in view of the forced, sudden, unprepared mass transition to distance education associated with self-isolation and significant social constraints that have lasted for several months, the digital format of education has been influenced by negative factors, met with little support at the beginning, and has now accumulated a certain fatigue on the part of participants in the educational process.

This may lead to a certain degree of rejection of its further development by a large part of the university community.

This is further evidenced by the recent intensification of discussions on the appropriateness and effectiveness of digitizing a large proportion of education.

At the moment, it is difficult to make a final and complete assessment of the impact and effectiveness of digital education and collaboration in a pandemic.

It is clear that the activities of the state authorities, the relevant ministries, and the university community during the pandemic have demonstrated that close coordination, clear linkages, and sound operational management are essential.



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Thank you for your attention

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