

# Online education in the estimates of Russian university students: prior to and during the pandemic

Natalya L. Antonova

Ural Federal University, Ekaterinburg, Russia.

Email: n-tata@mail.ru

Sofya B. Abramova

Ural Federal University, Ekaterinburg, Russia.

Email: sofia\_abramova@mail.ru

Natalia G. Popova

Institute of Philosophy and Law, Ural Branch of the Russian Academy of Sciences, Ekaterinburg, Russia.

Email: ngpopova@list.ru

## Abstract:

The article discusses online learning in the context of the emergency transition of universities towards the format of remote learning occurred during the Covid-19 pandemic. The aim was to compare students' opinions concerning online learning prior to the onset and during the pandemic. The methodology was based on a standardized survey of students studying at the Ural Federal University in 2019 (N=150) and 2020 (N=150). The results show that students' satisfaction with online education during the pandemic decreased compared to the pre-pandemic period, which led to a decrease in the level of life satisfaction in general. The respondents mentioned the following disadvantages of online learning: a lack of direct interaction with professors, a decreased quality of education and insufficient organization of conditions for online learning.

## Introduction

The modern world has faced a global challenge: the Covid-19 pandemic is having an impact on all areas of human life. The system of higher education has been forced to undergo urgent transformations in transitioning towards online learning. All subjects of the education system began to apply new technologies to move beyond conventional practices. In this context, the question of implementing mass online learning has become particularly relevant (Liguori and Winkler, 2020). This process also raised the problem of education quality. Some researchers noted that the emergency introduction of distance learning contradicts the very idea of high-quality and effective online education, which should be introduced gradually within the framework of organized learning models.

Online education is understood as a process of using technological devices and the Internet for educational purposes. Online learning allows students to study at their own convenient pace while achieving the same level of training as via traditional classes. However, Joshi et al. believe that, since online learning does not involve direct interaction, the problems of academic integrity and cyber fraud come to the forefront. Some authors estimate that online training during such crisis periods should be seen as 'emergency remote teaching'. The prior positive experience of online education was abandoned.

Since the end of the last century, universities have been actively involved in digital transformations, following new educational technologies and innovative solutions (Antonova et al, 2017). However, the degree of immersion in the digital educational space can be different. Accordingly, it is possible to distinguish "weak" and "strong" universities, whose experience of functioning during the pandemic turns out to be different.

Another factor is that both students and young professors can be referred to as digital aborigines, i.e. those who were born and raised in the digital age. Such people are expected to be more flexible and dynamic, open to the development of new digital technologies. However, as some researchers discovered, for a significant number of young people, the digital educational environment is still challenging, requiring specific digital skills. Another pressing issue during the pandemic was associated with the availability of technological equipment and the quality of Internet connection. Such problems, as poor Internet access and weak computers, have created social inequalities in online learning (Dhawan, 2020).

The above analysis suggests that additional research, including comparative studies (prior to and during the pandemic), into online education as a modern practice is needed.

## Materials and methods

### Study characteristics

The study was conducted using the method of standardized survey in two stages: at the end of 2019 (N=150, face-to-face hand-out questionnaire) and in June 2020 during the period of self-isolation caused by the spread of Covid-19 and forced transition of students and professors to distance learning (N=150, online questionnaire). The students were taking Bachelor's and Master's degree programmes at the Ural Federal University (Ekaterinburg, Russia). Due to the pilot nature of the study, the results cannot be considered fully representative of the entire population of Russian students. However, the findings are useful in identifying trends emerging in the context of dissemination of online technologies among educational activities. The questionnaire included 15 questions at the first stage (prior the pandemic) and 22 questions at the second stage (during the pandemic). The majority of the questions were formulated in a similar manner, which allowed us to compare the results. The obtained information was processed using the SPSS program and frequency and cross-tabulation analysis followed by calculation of percentage and average values, as well as correlation coefficients.

### Characteristics of respondents

Figure 1: Distribution of respondents by gender

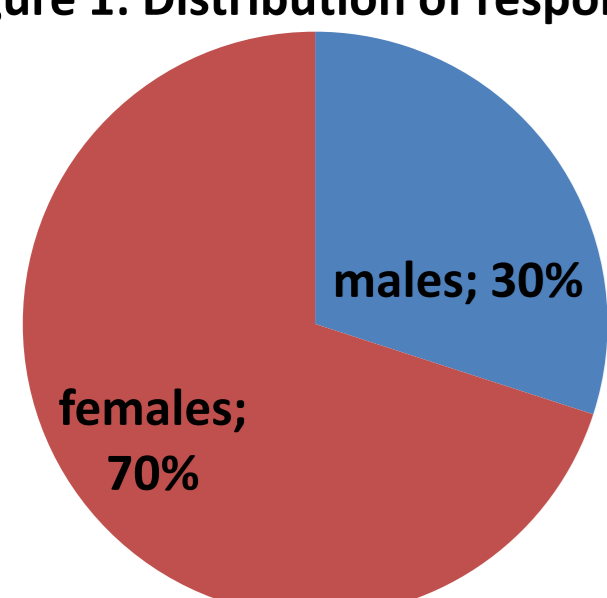


Figure 2: Distribution of respondents according to the course of study

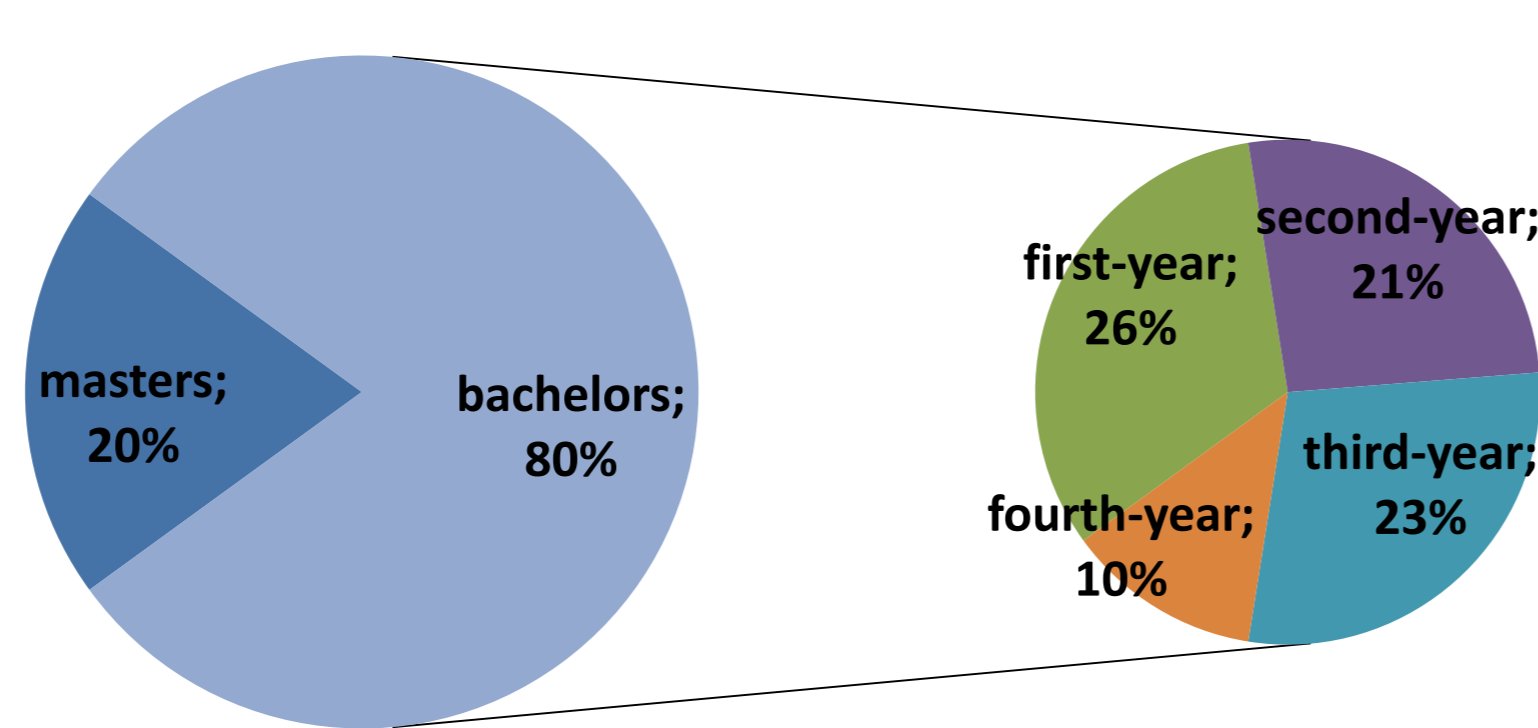
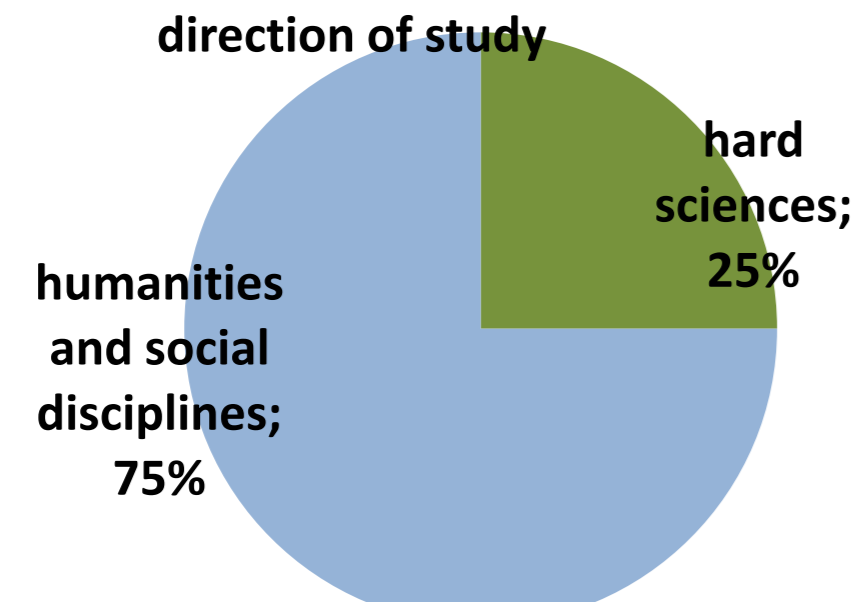


Figure 3: Distribution of respondents by direction of study



## Results

### Use experience

Prior to the pandemic, only 15% and 37% of the surveyed students had acquired the experience of online learning in more than 5 and 1–4 courses, respectively. 48% of the respondents declared no such experience. For the period April–May 2020, 33% of the students used online technologies to study 1–4 university subjects, 47% of the students completed 5–9 disciplines, 20% of the respondents indicated 10 or more online courses.

### Changing attitudes towards online learning

Against the background of a sharp increase in the number of classes conducted online, 30% of the respondents expressed worsening attitude towards this format. Such a change was observed both among those having had no prior experience of distance learning before the pandemic (34%) and among those having had the experience of online education before the period of self-isolation (22%).

Table 1. Disadvantages of online education mentioned by the respondents.

| Disadvantages                   | Poll results (at %)    |                           | Difference between Stage 1 and Stage 2* |
|---------------------------------|------------------------|---------------------------|---|
|                                 | Stage 1 (pre-pandemic) | Stage 2 (pandemic period) |   |
| Sense of social isolation       | 13                     | 29                        | +16                                     |
| Lack of live communication      | 48                     | 63                        | +15                                     |
| Difficult learning regime       | 7                      | 21                        | +14                                     |
| Decreased quality of teaching   | 33                     | 47                        | +14                                     |
| Lack of feedback from educators | 28                     | 41                        | +13                                     |
| Internet access problems        | 20                     | 27                        | +7                                      |
| Poor self-discipline            | 44                     | 35                        | -9                                      |
| Presence of distractions        | 52                     | 29                        | -23                                     |
| Possibility of deception        | 48                     | 16                        | -32                                     |

\* Positive values demonstrate an increase in the number of selected answers at the second research stage; negative values – a decrease in the frequency of selected answers

Significant changes were observed when assessing the positive aspects and opportunities of online learning. The sharpest decline occurred in terms of the possibility of downloading lectures and their asynchronous study. Only 45% of the respondents during the 2nd survey stage considered this possibility as an advantage, compared to 72% before the pandemic. An increase in the number of students' positive assessments occurred in terms of such characteristics as more flexible forms (from 13% to 31%) and higher results (from 7% to 12%) of performance assessment.

## Conclusion

4 main problematic zones identified in the field of online learning that can increase educational risks and affect the willingness of students to select remote learning: 1. a social isolation, the impossibility of direct and effective mediated/remote interaction of various subjects of the educational process; 2. a decrease in the quality of education, which is determined by a lack of self-organization, honesty, time management and responsible behaviour, as well as by the absence of learning skills necessary for online training; 3. organization of the educational process by university administrations and activities of educational entities (professors, parents, etc.). The conditions (technical, personnel, infrastructural, financial) created at a particular university affect the quality and timeliness of online courses, as well as students' trust in such programmes; 4. changes in student requirements in transforming their lifestyle and working practices, providing a workplace with modern technologies, ensuring access to the Internet, etc.

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