СОЦИОЛОГИЧЕСКИЕ ИССЛЕДОВАНИЯ В ОБРАЗОВАНИИ

BACKGROUND FACTORS OF CRISIS DISTANCE LEARNING PERCEPTION

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Abstract. *Introduction.* Crisis distance learning was an emergency response of higher education systems to the COVID-19 pandemic, and its elements still remain active in world universities. Literature review demonstrates that improvement of quality of offered courses does not demonstrate a stable correlation with improvement of students' feedback.

Aim. This study *aims* to explore the influence of background factors on students' perception of this format of education and identify and analyse the factors that predetermine the polarisation of students' satisfaction levels as extremely high or extremely low.

Methodology and research methods. The research frame combined qualitative and quantitative methods and included a series of semi-structured interviews with volunteers from the student which then served as a basis for an in-depth questionnaire with the sample of 115 respondents in the general population sample of 558 students. The Likert scale and qualitative content-analysis were employed to assess the level of satisfaction with the period under study and to build the tree of concepts perceived as its advantages and disadvantages. To identify the major factors that influenced the student perception, the multiple-choice questions that addressed the students' background conditions were weighed in comparison with the satisfaction level response in the general sample with the application of one-way analysis of variance (the Kruskal-Wallis criterion).

Results. The results show that there is polarisation in the student body. While the majority adapted to crisis distance education, there are two distinct minorities who consider it successful or unbearable. The background factors that influence the student perception significantly are the year of their programme, their commute patterns, their living conditions, and their employment status.

Scientific novelty. Overall perception of crisis distance learning by bachelor students reflects the struggles that the students face outside the classroom and distinct groups of students have their reactions determined by these factors to a degree where improvement of teaching methods cannot assist. The distribution of satisfaction levels in the sample proves that crisis distance learning highlights economic inequality.

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Practical significance. Administering higher education in this pandemic and the following pandemics to come should include a complex of measures aimed at compensating the background factors that predetermine students' low satisfaction levels in crisis distance education.

Keywords: crisis distance learning, student adaptation, COVID-19 education crisis, distance learning environment, education inequality.

ФОНОВЫЕ ФАКТОРЫ ВОСПРИЯТИЯ КРИЗИСНОГО ДИСТАНЦИОННОГО ОБУЧЕНИЯ

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Аннотация. *Введение.* Учреждения высшего образования отреагировали на пандемию COVID-19 введением кризисного дистанционного обучения. Анализ научной литературы показывает, что улучшение качества обучения не даёт устойчивого улучшения его восприятия студентами.

Цель исследования – изучение возможного влияния фоновых факторов на восприятие кризисного дистанционного обучения студентами бакалавриата, которые определяют свой уровень удовлетворенности как крайне низкий либо крайне высокий.

Методология и методика исследования. В исследовании использовались методы качественной и количественной статистики: серия глубинных полуструктурированных интервью и развернутое анкетирование случайной выборки студентов. При помощи шкалы Ликерта и качественного контент-анализа оценивался уровень удовлетворенности студентов качеством кризисного дистанционного образования за академический год и были выстроены кластеры сходства тем, упомянутых респондентами в качестве достоинств и недостатков этого периода. Сопоставление данных интервью и анкетирования позволило взвесить уровень удовлетворенности в группах респондентов с разными фоновыми условиями при помощи однофакторного дисперсионного анализа (критерий Краскелла – Уоллиса).

Результаты исследования. Была выявлена устойчивая поляризация восприятия кризисного дистанционного обучения в зависимости от фоновых факторов. Исследование позволило выделить четыре фоновых фактора, которые в значительной степени определяли уровень удовлетворенности среди студентов: курс обучения, затраты времени на передвижение в университет, условия проживания, частичная трудовая занятость.

Научная новизна. Результаты исследования доказывают, что общее восприятие студентами бакалавриата кризисного дистанционного образования в значительной степени

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определяется не способом организации кризисного обучения, а трудностями, с которыми студенты сталкиваются за пределами университета. Распределение уровней удовлетворенности в выборке демонстрирует, что кризисное дистанционное образование обостряет существующее экономическое неравенство среди студентов.

Практическая значимость. Администрирование высшего образования в условиях этой и следующей пандемий должно включать комплексы мер, направленных на компенсацию влияния фоновых факторов.

Ключевые слова: кризисное дистанционное обучение, студенческая адаптация, образовательный кризис COVID-19, дистанционная образовательная среда, образовательное неравенство.

FACTORES DE FONDO DE LA PERCEPCIÓN EN LA EDUCACIÓN A DISTANCIA EN SITUACIONES DE CRISIS

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Abstracto. *Introducción.* Las instituciones de educación superior han reaccionado a la pandemia de la COVID-19 mediante la implementación de la educación a distancia en situaciones de crisis. La revisión de estudios científicos, ha demostrado que el mejoramiento de la calidad de la enseñanza no ofrece una correlación estable en lo que respecta a la percepción de lo aprendido por parte del alumnado.

Objetivo de la investigación. Estudio de las posibles influencias de los factores de fondo de la percepción en la educación a distancia en situaciones de crisis por parte de los estudiantes de licenciatura, quienes definen su nivel de satisfacción ya sea como demasiado bajo o ya, como demasiado alto.

Metodología, métodos y procesos de investigación. En el estudio se utilizaron métodos de estadística cualitativa y cuantitativa: Una serie de entrevistas semiestructuradas en profundidad y una encuesta detallada de una muestra aleatoria de estudiantes. Con la ayuda de la escala de Likert y el análisis de contenido cualitativo, se valoró el nivel de satisfacción de los estudiantes en lo que se refiere a la calidad de la educación a distancia en una situación de crisis, valoración tal, llevada a cabo para el año académico en curso y se elaboraron grupos de similitudes en los temas mencionados por los encuestados en calidad de ventajas y desventajas de dicho período. La comparación de los datos de la entrevista y el cuestionario hizo posible sopesar el nivel de satisfacción en grupos de encuestados con diferentes condiciones de fondo mediante el análisis de varianza de una vía (prueba de Kruskell-Wallis).

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Resultados de la investigación. Se reveló que hay una polarización estable en la percepción del aprendizaje a distancia en situaciones de crisis, dependiendo de los factores de fondo. El estudio permitió identificar cuatro antecedentes que en gran medida determinaron el nivel de satisfacción de los estudiantes, a saber: La carrera, el tiempo invertido para llegar a la universidad, las condiciones de vida y la actividad laboral a medio tiempo.

Novedad científica. Los resultados del estudio demuestran que la percepción general por parte de los estudiantes de pregrado en la educación a distancia en situaciones de crisis está determinada en gran medida no tanto por la forma en que se organiza la educación, sino más bien por las dificultades que enfrentan los estudiantes fuera de la universidad. La distribución de los niveles de satisfacción en la muestra, demuestra que la educación a distancia en tiempos de crisis agudiza la desigualdad económica existente entre los estudiantes.

Significado práctico. La administración de la educación superior en el contexto de ésta y de la próxima pandemia ha de incluir un conjunto de medidas destinadas a compensar la influencia de los factores de fondo.

Palabras claves: educación a distancia en situaciones de crisis, adaptación estudiantil, educación en tiempos de crisis por la COVID-19, ambiente de la educación a distancia, desigualdad educativa.

Introduction

Digital transformation of higher education has been discussed and foreshadowed for several decades now. As national systems of higher education are conservative and resistant to rapid change, elements of distance digital learning were introduced into the academia in the form of massive open online courses (MOOC), guest lectures and sporadic international projects, or temporary compensatory measures in rare emergencies.

The COVID-19 pandemic pushed schools and universities globally to switch to online teaching March 2020 as can be seen from the initial analysis of school closures conducted by Z. Kristóf in 2020 [1]. According to UNESCO Global Monitoring of School Closures (2021), 1.13 billion learners of all levels, or 72% of total learners in the world were not attending offline classes in April 2020 due to nation-wide closures in 117 countries. This unprepared and rapid distance learning was crisis-prompted and can be called crisis distance learning. Primary and secondary school systems were soon back to offline and in December 2020 the closures affected only 17% of primary and secondary school learners, or 267 million people. The closure of world universities has attracted

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less public attention and inspired comparatively mild social protest, though specific countries such as South Africa have experienced student protest for decreased tuition fees, as L. Sosibo observed [2]. D. A. Shtykhno et al. analyse local policies in Russian regions and show that the academic year 2020–2021 started as a fully or partially distance year for most Russian universities [3]. The Russian government then issued flexible recommendations that universities could choose to follow based on regional monitoring data.

Global processes such as this worldwide university lockdown show high variation in local experience. Student perception of crisis distance learning depends on multiple factors, including, but not limited to specificity of higher education systems and particular study programmes. Future researchers will investigate the global processes of this scale by means of conducting meta-analysis of smaller studies of local experience, and this paper aims to contribute to this future meta-analysis.

This study supplies an in-depth insight into student perception of crisis distance learning during the 2020–2021 academic year within the undergraduate EFL (English as a Foreign Language) programmes at Novosibirsk State Pedagogical University in Russia. While the first transition to distance education in March 2020 was crisis-prompted and unplanned, the following academic year has been prepared by the faculty and staff that had time to adapt. Initial monitoring within the frame of this study was conducted in October 2020 and showed a high polarisation of student opinion about crisis distance learning. To measure the long-term impact of crisis distance learning on the student body and name the causes of this polarisation, we designed a poll which was administered in July 2021 after the academic year was over. We then used methods of descriptive statistics and qualitative and quantitative content analysis to measure the influence of specific background factors on the students' perception of crisis distance learning. Following the work of Z. Kristóf [1], we define a background factor in education quality assessment as an objective parameter that cannot be influenced by a change in teaching methods.

Literature Review

Distance Learning before the COVID-19 Pandemic

The umbrella term 'distance learning' is often used interchangeably with its more specific varieties, such as 'distance education', 'online learning' or 'online education', 'e-learning', and 'digital learning' or 'digital education'. In this paper, we follow the distinction offered by J. L. Moore et al. [4] and define 'distance learning' as a form of class design which does not require the student and the instructor to be on campus synchronically. 'Digital education',

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in contrast, refers to study programmes which are fully adapted to be taught off campus and offer a complete degree. 'Online', 'digital', and 'e-learning' are more specific variations of this class design and refer to the applied technological means and media.

In their longitude study, K. Harting and M. J. Erthal conclude that distance learning evolved from early correspondence schools of the 18th century designed as distant access to selected written sources within one sphere [5, p. 35] to modern complex online courses with developed audio-visual aids and varied forms of instructor's feedback. Such authors as G. J. Biesta, H. Lentell, T. A. Brown, and A. J. Lease describe distance education at the university level as more democratic [6, p. 20], flexible [7, p. 24] and generally bridging the gap between the academia and students in less fortunate circumstances [8, p. 416]. As a result, distance learning before the pandemic was often seen as a potential method to grant more equal access to higher education. There are social groups that are disadvantaged by the difficulties of staying on campus for several consecutive years. These groups include young parents, students who must work part-time, students with disabilities and, as S. Burgstahler puts it, students from remote regions in countries with low professional mobility [9, p. 57].

However, M. Kara et al. believe that distance learning was not considered to be a complete equivalent to full-time higher education on campus, and multiple studies reported a variety of constraints perceived by faculty and students, such as low technological competence, motivation issues, and lack of cooperative environment [10, p. 6]. The technological optimism was conditioned by the rapid development of high-speed internet and the possibilities it presented. In their meta-analysis of 32 digital trends in education, S. L. Howell et al. draw attention to the fact that the introduction of digital elements was gradual and limited to top universities and the universities that managed to secure extra funding for the time-consuming efforts of developing online courses aimed at wide audiences [11, p. 14]. These constraints were highlighted during the emergency transfer of higher education to distance forms in 2020.

Crisis Distance Learning and its Challenges for Higher Education

The term 'crisis distance learning' (considered optimal by N. Bergdahl and J. Nouri [12] in their work on Swedish education) or 'crisis-prompted distance learning' (suggested by A. Gacs et al. [13] as a more specific term) was coined early during the COVID-19 pandemic to describe the emergency transfer of education systems worldwide to compensatory forms of contactless education. C. Carello and M. A. Floris [14] note that in the very beginning of this transfer, scholars suggested that this new phenomenon differed from traditional distance education and needed a new nomination. A. Epps et al. mention that there

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are cases of normative distance education where all the stakeholders agreed to take part in this form of education [15]. The term 'crisis distance learning' is thus employed to contrast these normative cases to the cases of rapid transition where unvoluntary participants had an extremely narrow preparation window and where all the stakeholders see the process as a temporary compensatory measure.

E. V. Grunt et al. [16], F. Nayir and T. Sari [17], E. Koçoglu and D. Tekdal [18] have made formidable attempts to make extensive reviews of general problems of higher education under crisis distance learning conditions. We outline the universal problems that may influence the students' perception most as follows:

1) The window of adaptation was extremely narrow [19]. For instance, in Russian universities, classes were cancelled on 16 March 2020, and distance learning was supposed to start the following day. While primary and secondary schools had an extended spring break period, universities in Russia have no spring break and had to 'pave the railroad in front of the moving train on fire' (an excerpt from the in-depth interviews in this study).

2) Increased preparation time was necessary for most classes [17], as all the existing materials needed adaptation and all professor-student interaction was hindered by the initial absence of ready-made platforms for asynchronous announcements and feedback.

3) The faculty and staff experienced higher workload due to inadequate resources allocated for the transition [17]. Traditional distance education implied that each distant course was properly prepared, and its development was financed separately so that the faculty involved was freed from other workload during that period. Crisis distant courses were created with a limited set of available resources.

4) The transition was compulsory and had no definite timeline, so the participants of the process did not express informed agreement to conduct it this way and expected it to end soon [18].

5) External crisis factors complicated the adaptation, for example, death and early retirement of some faculty members; economic instability for students' families; M. Rizun and A. Strzelecki also mention increased anxiety levels of all participants as another external factor [20].

6) As a result, world universities experienced a deterioration of both the quality and the accessibility of higher education. J. M. R. Asio and S. Bayucca observe that it could be recognised by stakeholders on all sides of the process (administration, faculty, staff, students, parents, and scholarship foundations) [21].

These factors, while being universal for global higher education, shape students' local perception of crisis distance learning significantly. They stand

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for the external background challenges that do not depend on the local effort. These factors predetermined the negative responses of students to the crisis transition to distance learning, and universities and colleges could only offer compensatory measures to lower the negative impact of the transition.

Materials and Methods

Novosibirsk State Pedagogical University closed its doors for its students on 17 March 2020. Until March 30, faculty and staff had access to the university buildings and emergency classes were organised by faculty volunteers for those who needed help in creating their teaching page in the university Moodle system. From April to July the university remained fully closed both for the students and the faculty, and all classes relied on home-based facilities. In the autumn semester in September 2020, first-year students started their education offline while all other students stayed at home. As the new wave of the pandemic overloaded the public health services, the university closed completely on 4 November 2020 and all education was conducted strictly online for five months until end of March 2021. All the classes were conducted synchronously according to the offline timetable via Zoom and Microsoft Teams platforms.

During that period, it was impossible for the university to make an informed decision for the whole academic year and distance learning was prolonged monthly. This pending instability may have contributed to the students' perception, as responses in this study later showed.

As the literature review has demonstrated that groups of students in similar fields have a variety of reactions to crisis distance learning under similar conditions, we suggested the hypothesis of the research: student perception of crisis distance education is predetermined by external factors which universities can aim to compensate for.

To assess this hypothesis, three research questions were formulated:

Question 1 (Q1): What are the perceived advantages and disadvantages of crisis distance learning?

Question 2 (Q2): What perception do students have about crisis distance learning, and to what extent do their background factors influence their perceptions of crisis distance learning?

Question 3 (Q3): What is the level of satisfaction of students toward crisis distance learning?

The student body under study included 558 students who study in undergraduate programmes with a major in Linguistics or Education with a focus on the English as a Foreign Language (EFL). The undergraduate programmes last 4 or 5 years, with 4th and 5th years being the senior part of the curricula.

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Only the 1st-year students had had the prior experience of crisis distance learning at the secondary school level which may have served as bias for their perception of the similar process at the higher education level. The polling was conducted when the academic year was over, so that the students had time to reflect on their experience.

To address the research questions, the study was designed as a sequential exploratory mixed method design and included three stages.

The first stage took place in November 2020. We conducted 10 in-depth semi-structured interviews with volunteers from the student body. The interviewees included 3 second-year students, 3 third-year students, 2 fourth-year students, and 2 fifth-year students. First-year students were not selected for the in-depth interviews as their academic year started offline and at that moment their crisis distance learning experience lasted one week. The interviews were recorded, deciphered, and coded by three experts blindly. The experts had a task to underline key words and evaluate the positive/negative/neutral emotional connotations in each section of the interview. The variance of the experts' opinions was reliably low ($p < 0,0068$).

At the second stage, we used the collected data to design a questionnaire and evaluated it with the same 10 students in March 2020 to see if quantitative data correlate with the qualitative data received from the in-depth interviews. The questionnaire was then corrected: 4 open questions were added to account for possible personal variance of experience, 2 multiple choice questions were deleted to make the estimated response time less than 20 minutes.

The final design of the questionnaire included:

- 3 multiple choice and multiple answer questions (difficulties, advantages, individual use of compensatory practices, Q1)
- 4 open questions (best and worst practices, individual struggles, Q1)
- 5 multiple choice questions + 3 open questions (experience, Q3)
- 3 questions as the Likert items (satisfaction level, Q3)
- 6 multiple choice questions + 3 open questions (background, Q2)

At the third stage, we conducted the poll (sample = 115, population size = 558, 402 or 72% female students, 156 or 28% male students, margin of error ± 8.15%). The 115 respondents were volunteers, who were not previously interviewed within this study. The year of study distribution and the gender distinction in the poll sample modelled the gender distinction in the general sample. The initial instruction included a privacy notice and the questionnaire started with a consent question.

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Table 1

Sample description

Year	Number of respondents in the poll	Male	Female	Number of students in the general population
1	29 students, 25,2%	8	21	140 students
2	35 students, 30,4%	11	24	168 students
3	26 students, 22,6%	7	19	126 students
4	19 students, 16,5%	4	15	91 students
5	7 students, 7%	1	6	33 students
Total	115 students, 100%	31 students, 27%	84 students, 73%	558 students

We then used methods of descriptive statistics and qualitative and quantitative content analysis to address the research questions 1 and 3. The level of satisfaction with various forms of classes during the period under study was measured on a Likert scale. Open question items in Q1 were coded by three separate experts into units for qualitative content analysis to assess the general level of satisfaction with the crisis distance learning period. Open question items in Q3 were coded by the same three experts into units for qualitative analysis to build the tree of concepts seen as advantages and disadvantages of the period under study.

To identify the major factors that influenced the student perception, the multiple-choice questions that addressed the students' background conditions were weighed in comparison with the satisfaction level response in the general sample. The Kruskal-Wallis one-way analysis of variance was employed to measure if mean differences exist between the groups with certain background conditions.

The final mathematical analysis of the data employed the statistical software platform IBM® SPSS® Statistics, version 19.0.

The statistical significance of the results had p-value ≤ 0,05. This allows the authors to verify that the received results are dependable and statistically significant.

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Results

The given answers to the seven open questions in the questionnaire sections about the experience (3 questions) and practices during the period (4 questions) were coded by three independent experts for qualitative content analysis. The units for analysis were selected as key words and coded positive, negative, or neutral. The divergence between the coding of the three experts had p-value ≤ 0,05. The qualitative content analysis then allowed us to build two distinct trees of perceived advantages and disadvantages of the period of crisis distance learning to address Q1.

Table 2

Qualitative content analysis. Perceived advantages of crisis distance learning

Rank	Cluster	N, responses	p-value
1	No necessity to commute to the university.	95	0.0021
2	It was easy to attend the classes if you were sick.	94	0.0014
3	Better lunch options during breaks.	92	0.0001
4	More comfortable clothes, no boots on your feet all day.	89	0.0035
5	Class materials, tasks, written instructions available online.	64	0.0001
6	Clearer and more logical standards and assessment.	36	0.0008
7	Individual compensation of long-term health issues (poor eyesight, back problems, ADD, etc.)	36	0.0001
8	Answering online is less stressful.	34	0.0351
9	It was easier to distance yourself from boring classes.	23	0.0095
10	Less interaction with the people that the students do not choose to communicate to.	11	0.0011

The second tree of perceived disadvantages demonstrated higher variety of answers. If the tree of advantages included four distinctly dominant themes in the students' comments, the disadvantages were less universal.

Table 3

Qualitative content analysis. Perceived disadvantages
of crisis distance learning

Rank	Cluster	N, responses	p-value
1	Inadequate quality of equipment	48	0.0011
2	Too much screen time per day	48	0.0005
3	Increased workload	43	0.0131

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4	Monotonous written assignments	41	0.0001
5	Increased background stress	38	0.0005
6	Instability: too many announcements, changing policies, changing schedule	26	0.0021
7	Low focus and concentration due to the medium	25	0.0010
8	Isolation, loneliness	25	0.0061
9	Loss of the facilitating social environment	21	0.0001
10	Inadequate personal space for studying	16	0.0015

As one can see in the tables 2 and 3, the perceived advantages of crisis distance learning were not connected with the medium per se, but rather with the compensation of the disadvantages of the way offline education is organised. Long commuting, poor lunch options, inconvenient clothing, increased stress, monotonous classes, individual health issues could be compensated for during offline education with more effort, finance, or awareness of these issues. However, the perceived disadvantages were medium-based and could not be easily compensated for by effort on behalf of the university.

In the study, there was also a direct question on the general class preference that did not show significant variance when weighed against other questions but outlined the possible solution to part of the struggle the students experienced. When asked "What is your overall preference for your education during the pandemic?", 19,1% (22 respondents) preferred strictly offline education, 26,1% (30 respondents) preferred strictly online education, 47,8% (55 respondents) preferred a combination of several days of lectures and seminars online and several days of practical classes offline every week. 7% (8 respondents) preferred other variants, where each variant made up less than 1%. This further illustrated the fact that the perceived disadvantages of crisis distance education could not be fully compensated for.

The level of satisfaction with the crisis distance learning period was calculated as means in the Likert scale made of three Likert items. The total mean average rank was 17,17 points out of 30, with median answers being close to the mean average within each Likert item. The qualitative analysis coded into positive/neutral/negative was then compared with the Likert scale results to see if there were cases of distinct discrepancy between the two measures that might indicate an invalid question in the questionnaire. No abnormalities were found.

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Table 4

Satisfaction level measured as the Likert scale, $N = 115$, p-value < 0.005 (Q3)

Item	Mean	Median	Min	Max
Likert Item 1: Overall satisfaction with the effort of the university	6,54	7	0	10
Likert Item 2: Overall satisfaction with the student's own effort	4,38	4	0	10
Likert Item 3: Overall satisfaction with the period of crisis distance learning	6,28	6	0	10
Total	17,17	17	0	30

The total value of the Likert scale then served as the dependent variable for the Kruskal-Wallis one-way analysis of variance. Out of the 14 multiple choice questions only 4 background questions demonstrated reliable variance of responses as compared with the total sample results.

Table 5

The Kruskal-Wallis one-way analysis of variance: questions with statistical significance of divergence, p-value <. 001

Question	Samples	Mean	Median	H-value
1. Which year were you in during the 2020/2021 academic year?	Year 1 – 25,2%, 29 respondents	18.2	17	33.8911
	Year 2 – 30,4%, 35 respondents	16,7	17	
	Year 3 – 22,6%, 26 respondents	11,76	11	
	Year 4 – 16,5%, 19 respondents	22,63	22	
	Year 5 – 5,3%, 7 respondents	23	22	
2. How far do you live / how do you get to the university?	15,7% (18 respondents) live on campus and walk	14,05	10	17.1183
	20,0% (23 respondents) commute for less than 30 minutes one-way	14	14	
	56,5% (65 respondents) commute for more than 30 minutes one-way	18,84	19	
	7% (8 respondents) use a private car	21,62	22	
	0,8% (1 respondent) – other (not counted in the H-value)	N/A	N/A	
3. What are your living conditions?	21,7% (25 respondents) live in the dorm / rent flat and share the room	13,32	12	46.46
	20,9% (24 respondents) rent a flat and have a room	19,8	19	

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	35,7% (41 respondents) live in a household without children and have a room	21,04	24	
	7 % (8 respondents) live in a household with children and have the room	15,25	12	
	10,4% (12 respondents) live in a household with children and share the room	8,75	9	
	4,3% (5 respondents) other (not counted in the H-value)	N/A	N/A	
4. Are there any job-related factors that might have influenced your learning experience?	52,2% (60 respondents) are supported by their family financially and fully focused on their education	15,16	11	16.54
	21,7% (25 respondents) worked part-time from home	21,16	22	
	21,7% (25 respondents) worked part-time offline	17,44	17	
	2,6% (3 respondents) lost their part-time job (not counted in the H-value)	N/A	N/A	
	1,8% (2 respondents) – other (not counted in the H-value)	N/A	N/A	

The mean and median results of the Likert scale in each sample allowed us to conclude that there were distinct patterns of the major factors that influenced the student's perception of the period as successful/unbearable.

The students in their senior year (5th-years and 4th-years) reported higher satisfaction levels; they were better equipped for the transition, had less technological competence constraints, prefer distance learning to offline learning. Their mean average ranks of 22,63 and 23 correspondingly were high above the average 17.17 in the general sample. The 3rd-years struggled most and reported more difficulties in all fields. The 2nd and 1st-years had overall results within the margin of error of the total sample but showed higher polarisation of opinion (the median answer was divergent from the mean average rank).

Predictably, the students who had longer commute more often perceived distance education as successful or normal. Commuting by public transport correlated to an increase of satisfaction level to the mean average of 18,84 points. Using a private car had the most prominent effect on the perception with the mean average of 21,62 points. At the same time, students who did not experience difficulties with getting to the university during offline learning showed a much more negative perception of the crisis distance learning period – 14,05 for those who walked to the university and 14 for those who had a short commute. At the same time, there was a high polarisation among the students who lived within the walking distance from the university (the median answer

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was 10 while the mean average was 14,05). It was explained by the presence of another background factor – the polarisation was between the students who lived in the dorm and the students who rented a flat.

The living conditions seemed to have a dramatic effect on the satisfaction level. The students who had a separate room reported higher satisfaction levels – 19,8 for those who rented a flat, 21.04 for those who lived in a household without children. Having a separate room in a household with children under 18, however, caused a drop to 15,25 points which was below the mean average for the overall sample. Living in a dorm or sharing a room with children under 18 was a key factor that correlated with most struggles, low satisfaction level and description of the crisis distance learning as 'unbearable'– 13.32 and 8,75 correspondingly.

The unexpected results included the reliable causation between job-related factors and the satisfaction level. The students who worked part-time from home reported higher satisfaction levels (21,16 points). The students who did not have a part-time job reported higher influence of anxiety and stress factors on their performance and showed higher polarisation of opinion (15,16 points with the median 11). The students who worked part-time offline fell within the general sample data (17,44 points compared to 17,17 in the overall sample).

Other factors (gender, financial welfare, returning to the parental household, change in the health level, individual lifestyle changes, background technological competence) did not seem to have confident impact on the students' perception of crisis distance education.

Discussion

The results in this study show that overall perception of crisis distance learning by bachelor students is mixed. While some of the students reported high satisfaction levels, most of the students' answers fall within the medium domain on the Likert scale and describe the period under study as 'tolerable'. This corresponds well with other studies focused on measuring student perception across several programmes, such as the study of students' perception in Poland conducted by M. Rizun and A. Strzelecki [20] that demonstrates a similar polarisation and the research project into students' feedback at Jordanian universities by O. Khoury et al. that shows a similar pattern of high and low satisfaction levels [22]. At the same time, high satisfaction levels among students are reported if the study is limited to one specific course or programme perception, such as the research into the perception of students in the programme on Education by K. Lee et al. [23], or the measurement of satisfaction levels in a EFL programme by N. Doghonadze et al. [24], or a qualitative enquiry conducted

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by K. Fuchs among students of Tourism [25]. This may be explained by the sample bias – a well-managed online course may be appreciated by the students so that they will attempt to separate their overall experience from the experience received in this specific course.

The tree of perceived disadvantages of crisis distance learning agrees well with other studies in this area. Just like their peers in other countries and study programmes, our sample of EFL bachelor students struggled with the workload, focus and concentration (as mentioned by E. W. Villanueva et al. [26] in their study of medical students' responses), psychological discomfort and communication challenges (exactly in the way L. S. Neuwirth et al. suggested in their outline of possible challenges [27]. The tree of perceived advantages, however, is more specific. While other authors that measured student perception in Russian university programmes, such D. A. Shtykhno et al. mention increased freedom and convenience of online forms [3], the qualitative content analysis shows that the students in our study value pragmatic organisational benefits such as less commuting, better lunch and more convenient conditions more. This may be explained by the fact that the studies applied descriptive statistical methods and did not combine them with qualitative content analysis of open question responses. Alternatively, this may also be a limitation of this research as the students in this study live in harsher climatic conditions and their perception may be influenced by this inherent external factor.

Our results also show considerable polarisation in the student body – there are distinct groups of people that prefer online or offline education during crisis. Similar polarisation may be seen in other quantitative perception studies, for instance, M. Firat and A. Bozkurt also stress that the factors that influence the student perception most are often beyond the faculty's capacity to assist [28].

Strict preference for offline classes at all costs predominantly correlates with the negative background conditions the university or the faculty cannot influence, such as living conditions. Strict preference for online classes correlates with the background conditions that can be improved, such as experience, motivation, equipment, teaching methods and more preparation on behalf of the faculty. These results correspond to other publications that highlight the fact that digitalisation increases inequality, such as in the case study of South Africa described by L. Sosibo [2], and poorer students suffer more from studying online, while students with less strained background cope well in both the environments. Out of the four background factors that showed reliable variance of responses as compared with the total sample results in this study, three were related to the inequality of starting conditions in the student body.

An important result of this study is that the student body under consideration prefers combining online and offline days as a form of compensatory

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practices for the perceived disadvantages of distant education. More than 50 % of the students demonstrate a strong preference for a mixed form of classroom and online schedule. This may be explained by the variety of factors that hinder online education, while offline education has a number of disadvantages as well. R. Bordoloi et al. come to the similar conclusion, as seminars and practical classes are more demanding on the students with less unfortunate background conditions [29]. This is supported by the work of T. Klyachko and S. Sinelnikov-Murylev who also point out that online learning is a catalyst for digital inequality and finding a combination of methods to address it might be a possible future challenge for the Russian system of higher education [30].

An important limitation of this study is that the sample represents reliable results for students with a specific focus on English as a foreign language in their programme, and though the results correlate with the data received in the similar studies in the literature review, they cannot be directly extended.

Another limitation deals with the fact that this sample of students did not report considerable difficulties with the internet connection or equipment, while T. Sari and F. Nayır suggest that students who do not own a computer or a laptop are further disadvantaged [17]. M. Firat and A. Bozkurt also believe that this factor may have major importance [28]. However, E. B. Yastrebova et al. [19] report a similar result in their sample of MGIMO university students, so either the specific structure of the Russian educational system or the specificity of studying international languages can account for this limitation.

Another limitation is that the difference in the student perception weighed according to the year of their programme may be explained by their comparison bias, as first-year students had some experience of crisis distance learning during their high school from March to May 2020 and their reported higher satisfaction levels may be conditioned by this low comparative benchmark.

Conclusions

The hypothesis of the research was that student perception of crisis distance education is predetermined by external factors which universities can aim to compensate for. The research design aimed to address three research questions to support or reject the hypothesis.

The qualitative and quantitative content analysis in combination with the Likert scale allowed us to build a range of students' answers and assign quantitative values to their perception. The mean average of 17.17 showed that most of the students' perceptions fall within the medium satisfaction level that can be described as 'tolerable.' At the same time, there were distinct groups of students with low ('unbearable') or high ('successful') satisfaction levels.

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The Kruskal-Wallis one-way analysis of variance allowed us to single out four background questions out of the 14 multiple choice questions that demonstrated reliable variance of responses as compared with the total sample results. The four background factors that influence the student perception significantly are: 1) the year of their programme; 2) their commute patterns; 3) their living conditions; 4) their employment status. Such factors as gender, financial welfare, returning to the parental household, change in the health level, individual lifestyle changes, and background technological competence did not show any confident impact on the students' perception of crisis distance education.

The unexpected findings include two statements. The students who are in the third year of their programme report lower satisfaction levels. This may be explained by the curricular change at this level in the bachelor programmes, as during the third-year student have more major-related courses and have their first research work done. The students who are employed show higher satisfaction levels and this levels further increase if they were employed online. This may be explained by the psychological impact of financial independence, flexibility in the schedule during senior years, or better work equipment that the students use during their university classes.

The qualitative content analysis allowed us to build two distinct trees of perceived advantages and disadvantages of crisis distance education. To a large degree, the perceived advantages are conditioned by the comparative benchmark of students' struggles during their offline education (no necessity to commute to the university; better lunch options during breaks; more comfortable clothes and no boots on your feet all day; class materials, tasks, written instructions available online; individual compensation of health problems). The perceived disadvantages are connected to the medium constrictions of crisis distance learning (too much screen time per day; increased workload; increased background stress; low focus and concentration due to the medium; isolation, loneliness; loss of the social environment) or to background factors (inadequate quality of equipment, inadequate space for studying).

It stays open for discussion whether universities should close. The modelling study by Y. Li et al. [31] mentions that schools and universities are responsible for 37% of pandemic-meaningful contacts. However, the impact of closing universities is disproportionately distributed and hurts the more vulnerable groups of students most, as this study shows. Universities can compensate for part of the medium-related constrictions with more focus on diverse teaching methods and support for faculty and staff. Universities might be able to invest more finance into creating study spaces to neutralise the strongest negative factor of inadequate study space for the students who live on campus.

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However, universities cannot solve the background problems that shape up the students' perception most – the problems connected with economic inequality among students, as the variety of living conditions and their impact on the students' perception demonstrate.

The prospective research in this area might include comparative research into satisfaction levels of students with varied family structure, living conditions and income level. Russian universities with a high rate of students living in hostels might benefit from statistical research into the impact of variable living conditions in students' hostels across the range of universities on the students' perception of offline and online education, as such research could become a basis for educated improvement of university space and facilities.

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