



Distance education quality: First-cycle university students' position

Vincentas Lamanuskas ^{1*}

 0000-0002-4130-7899

Rita Makarskaitė-Petkevičienė ²

 0000-0003-1653-8094

¹ Institute of Education, Vilnius University Šiauliai Academy, Šiauliai, LITHUANIA

² Institute of Educational Sciences, Vilnius University, Vilnius, LITHUANIA

* Corresponding author: vincentas.lamanuskas@sa.vu.lt

Citation: Lamanuskas, V., & Makarskaitė-Petkevičienė, R. (2023). Distance education quality: First-cycle university students' position. *Contemporary Educational Technology*, 15(3), ep434. <https://doi.org/10.30935/cedtech/13243>

ARTICLE INFO

Received: 12 Mar 2023

Accepted: 22 Apr 2023

ABSTRACT

It is obvious that the COVID-19 pandemic has completely changed learning and study processes. It has become a serious test for university students. Although distance study organization, implementation, effectiveness, and the like are actively researched, it is not entirely clear which way of organization studies is the most appropriate and prospective. Too little attention is still paid to the model of distance studies, its implementation and improvement, especially in the future development of distance and mixed distance study organization and implementation. An empirical qualitative study was conducted, the aim of which was to analyze first-cycle (bachelor study) university students' position on the study quality issue. 132 students in the field of social sciences from three Lithuanian universities participated in the study conducted in January-May 2022. The verbal data obtained were analyzed using quantitative content analysis. The extracted semantic units were grouped into subcategories and categories. It was established that the main advantages of distance studies were convenience and cost-effectiveness, while disadvantages were the deterioration of the study organization and the deterioration of quality. The ways (directions) of quality distance study improvement can also be seen, i.e., the study process realization improvement (e.g., the content presentation improvement, an increase in interactivity), and study organization improvement (e.g., teacher competence improvement and optimization of the schedule). Despite the revealed shortcomings, more than two-thirds of students positively value the possibility of continuing the study process remotely after the pandemic. More detailed research is needed on the impact of the pandemic on university studies and the further organization and implementation of distance studies.

Keywords: distance education, quantitative content analysis, qualitative research, university students, university education

INTRODUCTION

Since the start of the pandemic, universities have essentially switched to distance learning at the same time. The obvious thing is that in reality they were not fully and adequately prepared for such a situation. After 2020, a certain amount of experience has already been gained, and knowledge about distance study organization and implementation has been accumulated. Research on the available experience of organizing distance studies in new conditions allows us to draw relevant conclusions and provide insights for the future. It can be reasonably stated that the COVID-19 pandemic has significantly affected the entire education sector at all levels. A wide variety of problems emerged, e.g., social exclusion, education quality assurance, digital divide, competence issues of education participants, etc. On the other hand, the pandemic also caused certain transformations in university studies, created the conditions for a wider application of distance studies, and revealed more opportunities to use electronic resources for teaching and study purposes (Lamanuskas & Makarskaitė-Petkevičienė, 2022).

International Context

Although distance studies in their essence is not a new thing, however, in recent years many studies have been conducted analyzing the problems of distance studies. This is especially related to the context of the COVID-19 pandemic because the study process at that time was basically transferred to an online distance format. At the international level, many studies have been conducted and are further conducted examining the most diverse issues of the organization and implementation of distance studies. Researchers and practitioners from various countries are basically united in unequivocally stating that higher education institutions faced huge challenges trying to organize the studies during the pandemic period. The research covered a very wide range of issues, for example, study quality, socio-economic environment, students' learning and living conditions, internship organization, student mobility conditions, technical capabilities, academic integrity, etc. This clearly shows that this is an extremely relevant topic that has differently affected the social and academic life of different study field students.

An important aspect of distance studies is their quality. According to Lawless and Richardson (2002), attitude towards distance studies is strongly related to the students' perception of the academic quality of the study course. Even before the pandemic, it was stated that distance education (studies) is on track to become mainstream by 2025 (Palvia et al., 2018). However, distance learning revealed various aspects of the study quality, which are not necessarily positive (Maras & Nemet, 2021). It is said that the effectiveness of distance learning is quite questionable. Research shows that during the COVID-19 pandemic, students had various problems moving to online learning, e.g., technology, mental health, time management, etc. (Maqableh & Alia, 2021). A study conducted in Morocco showed that student satisfaction was highly dependent on the course length, interactivity, and the applied teaching/study methods (Zouiri & Kinani, 2022). Although the interpretations regarding distance studies are rather diverse, however, gaps in the study quality are often indicated (Alhammedi, 2021), and distance study quality is rated rather poorly (Toubasi et al., 2022). On the other hand, several studies show that the study quality is evaluated rather favorably. For example, a study conducted in Ukraine on the quality of distance learning during the pandemic showed that the quality of distance learning after a year of experience was higher than at the beginning, i.e., before the pandemic (Didkivska & Vakaliuk, 2022). Similar results are demonstrated by a study conducted in Pakistan, stating that distance education revealed high student satisfaction (Faize & Nawaz, 2020). Besides, distance study evaluation depends on students' employment (e.g., working-non-working students) (Benhima, 2021). The results of a study conducted by Czech researchers show that students perceived distance learning as less demanding and were therefore satisfied with this learning method (Chytry et al., 2022). The researchers assume that this may have been due to the different requirements during distance learning, which facilitated the teaching and learning process.

National Context

When the pandemic started in Lithuania, universities almost universally switched to distance learning. In the context of quarantine restrictions caused by the COVID-19 disease, larger groups of students studied remotely. It is understandable that this caused considerable challenges both for the students and for the organizers. In principle, the entire study process - lectures, seminars, meetings, and other activities took place in a virtual environment.

Čiegis et al. (2022) analyzed distance lecture formats and argued that distance lectures should be inclusive in order to achieve active student participation. The study conducted by Steponėnienė and Narbuntaitė (2021) showed that the motivation of students studying in higher education institutions did not decrease during the COVID-19 pandemic. The subjects indicated that they had no experience with distance learning before the start of the coronavirus. Strukčinskaitė et al. (2021) study revealed that during the pandemic, only a minority of students took regular breaks after spending many hours at the computer. The subjects mentioned inadequate work equipment and working environment, and most of them felt pain in various parts of the body. Most students indicated that they put too little effort into increasing physical activity. Most would like to exercise with peers and friends, but this is difficult during the quarantine. Nausėda et al. (2021) revealed four main challenges in the study: technological, personal, cultural, and educational. Also, students see certain opportunities for improving the study process, including more interactive activities, inviting other teachers to

lecture and involving students in discussions. On the other hand, research shows that it is promising to develop mixed studies—by introducing and consolidating the permanent alternating combination of both forms of studies (Advilonienė, 2022).

Research Context

A study was carried out, the purpose of which was to analyze first-cycle students' position in terms of distance study quality. It can be reasonably assumed that the pandemic equivocally affected the conditions and the quality of student studies. Moreover, the pandemic had a large and ambiguous impact on university education (Lamauskas & Makarskaitė-Petkevičienė, 2021; Lollobrigida et al., 2022), apparently global (Marinoni et al., 2020; Osman, 2020). Undoubtedly, there is a lack of detailed research on the first cycle of university study conditions and needs, especially in the context of the quarantine restrictions caused by COVID-19. Thus, despite the relatively large number of studies on the organization of distance studies in universities under special conditions and new challenges that have arisen, it is clearly insufficient. On the other hand, the impact of the pandemic on the higher education system (university studies) is specific in different parts of the world and varies from country to country. Although it is difficult to objectively measure the quality of studies, there is no doubt that when evaluating the quality of studies, it is necessary to consider one group of people interested in the higher education system—bachelor study students. Empirical research aimed to find out what was previously lacking in knowledge, allowing us to improve reality, and find new ways of solving problems. In order to realize the purpose of the research, research questions were formulated:

1. What are the advantages and disadvantages of distance education (teaching/learning) online?
2. How is distance education (studying) evaluated in the post-pandemic period?
3. What are possible methods and possibilities for improving/developing distance education (studying)?

It is likely that the results of the empirical study will help to effectively improve the university's first-cycle study process and highlight other opportunities for improving it. In addition, empirical research is likely to identify systemic problems that need to be addressed today, to ensure the stability of university work both today and in the future under any and also crisis conditions.

RESEARCH METHODOLOGY

General Background

An empirical qualitative study was conducted in January-May 2022. The research is based on the premise that it is important to determine the opinion of the recipients of the educational services, students, and their study needs. Verbal information collected during the study was analyzed using appropriate qualitative analysis methods. It was assumed that semantic units (words, their combinations, etc.; their presence or intensity in certain text units) reflect certain aspects analyzed in the study. According to Lune and Berg (2017), qualitative research provides conditions for delving into the meanings, concepts, definitions, characteristics, descriptions, etc. of the phenomena, in order to uncover the meaning. On the other hand, qualitative research examines a research phenomenon based on the experiences and interpretations of the participants and allows us to capture more nuances and insights from the unique experiences of subjects (Jordan et al., 2007). The aim is to reveal research phenomenon in its own context and integrity (Can & Himmetoglu, 2021). All students used Microsoft Teams for all study activities: lectures, work submissions, work account activities, etc.

Sample Selection

The research sample consisted of 132 university students from three Lithuanian universities. Of them, 113 (85.6%) were female and 19 (14.4%) were male. In case of large disproportion, the data are not analyzed in terms of gender. Their distribution by the year of study is presented in [Table 1](#). All research participants are students of the study programs in the field of social sciences and humanities. Their distribution according to the study programs is presented in [Table 2](#).

Selecting a research sample in qualitative research is quite problematic, on the other hand, the selection is contextual and partly depends on the scientific paradigm, according to which the research is conducted (Boddy, 2016). Usually, a qualitative research sample varies a lot, from 1 to over 100 (Rusu Mocănașu, 2020).

Table 1. Students' distribution by the year of study

Course	Frequency (n)	Percentage (%)
The first	24	18.2
The second	52	39.4
The third	28	21.2
The fourth	28	21.2
Total	132	100.0

Table 2. Students' distribution according to the study programs

Study program	Frequency (n)	Percentage (%)
Primary education pedagogy & pre-school education	30	22.7
Preschool education pedagogy & pre-school education	20	15.2
Childhood pedagogy	31	23.5
Physical culture & sports pedagogy/children's sports education (branch)	12	9.1
Economics	19	14.4
Public administration	8	6.1
Program systems	7	5.3
English philology	3	2.3
Psychology	2	1.5
Total	132	100.0

30-50 subjects in a qualitative study are generally considered the optimal sample size (Morse, 2015). On the other hand, large-scale qualitative research utilizes a larger number of participants, i.e., up to 100-300 (Subedi, 2021). Determining the appropriate sample size in qualitative research ultimately depends on the judgement and experience in evaluating the quality of the information collected and other relevant aspects (Sandelowski, 1995). Qualitative sample size may best be determined by the time allotted, resources available, and study objectives (Patton, 1990). On the other hand, the sample size must be large enough to adequately characterize the phenomenon of interest and address the research question at hand. However, at the same time, a large sample size may contain duplicate data. After evaluating the essential methodological parameters, it can be reasonably stated that the sample of 132 subjects formed for this study is sufficiently representative, and the qualitative study itself is treated as wide-ranging, allowing adequate/reasonable conclusions to be drawn.

Instrument and Procedures

The questionnaire used in the study consists of four open questions. When formulating the questions, the current situation of university studies was evaluated. The following open questions/tasks were presented:

1. Mention the three most important aspects of teaching and learning (studying) on the internet/online that you like and explain why.
2. Mention three aspects that you dislike most speaking about online teaching and learning (studying) and explain why.
3. Provide at least three suggestions for improving online teaching and learning (studying).
4. What is your opinion about teaching and learning (studying) on the internet/online after the pandemic?
5. Write what else you might like to say about distance/online studies.

Research instrument was discussed among researchers. Initial validation of the instrument was carried out in which six students participated. Following the received comments, a partial adjustment of the research instrument was made. It was explained to the research participants that the opinions of individual respondents will not be made public, the research is voluntary and anonymous. Comments and/or the context of a personal opinion/position are of particular importance to the research. Questionnaire was filled in by computer, the volume was not limited. Communication with research participants took place via e-mail.

Data Analysis

The written data collected were coded, and the most frequently repeated meaningful units were grouped accordingly. The primary groups were named subcategories, which were combined into larger units-categories at a later stage of analysis. The qualitative research data were processed using quantitative content analysis when essential features are extracted from the information array. Content analysis as a method is a

scientifically based and effective solution, allowing one to draw reasonable conclusions from various sources of textual information (Coners & Matthies, 2014).

Devi-Prasad (2019) defined content analysis as reducing a large portion of words obtained through qualitative data in order to make meaning of the data by detecting trends and meaning. Analytical analysis of the content of textual data arrays is considered the basis and essential advantage of qualitative content analysis (Morkevičius, 2005). The data were analyzed in several stages by two researchers independently. In the final step, the researchers sought consensus on the assignment of subcategories to categories. The degree of compatibility was higher than 80%, which according to Neuendorf (2002), an inter-coder reliability score above 80% would be acceptable 'in most situations'.

RESULTS

After analyzing the general position of the respondents on the positive aspects (advantages) of distance learning, four categories were extracted: *convenience of studying*, *cost-effectiveness of studying*, *effectiveness of studying*, and *improvement of emotional health* (Table 3).

Table 3. Advantages of distance learning [n (%)]

Categories	Subcategories	Statements	n (%)
Convenience of studying: 102 (41.1)	Availability: 36 (14.5)	Lectures take place anywhere (you can connect to learning platform from anywhere)	15 (6.0)
		Convenient & simple	8 (3.2)
		Lectures take place in home environment (you can study while staying at home)	8 (3.2)
		You can study from home	5 (2.0)
		Faster/more flexible access to information sources	18 (7.4)
	Flexibility: 31 (12.5)	Easy to use online learning platform	7 (2.8)
		Free/flexible study schedule	3 (1.2)
		It is easier to plan things & make them happen	3 (1.2)
	Compatibility with work: 29 (11.7)	I can study without withdrawing from working activities (combining studies with work)	24 (9.8)
		It is much easier to combine work & studies	5 (2.0)
Compatibility with family: 6 (2.4)	It is possible to combine studies & family issues	6 (2.4)	
	Cost-effectiveness of studying: 79 (31.9)	Saving time: 41 (16.5)	Saves time
No need to waste time going to university			3 (1.2)
Efficient use of time: 22 (8.9)		It is convenient to choose study time	12 (4.8)
		The time devoted to studies is used more efficiently	6 (2.4)
		It is easier to allocate time to various tasks (better planning)	4 (1.6)
Saving money: 16 (6.5)	Financial resources are saved	16 (6.6)	
Effectiveness of studying: 40 (16.1)	Satisfaction with studies: 13 (5.2)	It is interesting & fun to study remotely	6 (2.4)
		Work/study online more productive	3 (1.2)
		Academic results improve	2 (0.8)
		Learning has become much more interesting	1 (0.4)
	Capacity improvement: 12 (4.8)	Higher quality	1 (0.4)
		Improving ICT literacy	4 (1.6)
		Greater autonomy	3 (1.2)
		Improving organizational skills	3 (1.2)
		Easier to learn new things	1 (0.4)
		Creativity increases	1 (0.4)
	Better attendance: 9 (3.6)	Fewer missed lectures & higher attendance	5 (2.0)
		Increased opportunities to participate in lectures	4 (1.6)
	Better communication: 6 (2.4)	Quick feedback from teachers	4 (1.6)
		I can ask questions to teachers at any time	1 (0.4)
Easier to communicate with classmates		1 (0.4)	
Improvement of emotional health: 27 (10.9)	Environmental suitability: 15 (6.1)	Fewer extraneous factors & disturbances	6 (2.4)
		Easier to focus on tasks	5 (2.0)
		Good & non-disruptive environment	4 (1.6)
	Reduction of tension & stress: 12 (4.8)	Less excitement & stress during accounting (e.g., during session)	8 (3.2)
		Less tension	4 (1.6)

Note: Totally 248 semantic units were extracted

It can be seen that the first category is about *convenience of studying*. It received 41% of all statements about the benefits of distance studies. This category has four subcategories. The first three *accessibility*, *flexibility*, and *compatibility with work* cover most of the statements in this category. Students consider learning from home a considerable advantage, the possibility “to reach” lectures being in any place. Flexible schedule, access to information sources, convenient learning platform are also noticeable. Distance studies are convenient for working students because they could more easily combine studying with work. *Compatibility with family* is the fourth subcategory, although it combines only a few statements, but it is very significant for students who have already created families.

The second category *cost-effectiveness of studying*, which combined only a third of all statements, consists of three subcategories. The biggest of them is *time saving*. Distance studies allowed students to save time going to university and returning home. The second subcategory is *efficient use of time*. Students claim that they were able to plan everything ahead, to make better use of the time allocated to their studies. Not a big subcategory is *saving money*—although a small part of students paid attention to this, however, the costs are usually lower when studying remotely.

Although the third category *effectiveness of studying* is not abundant according to the assigned number of statements, however, it consists of four subcategories. *Satisfaction with studies* subcategory has got statements about more interesting studies, their productivity, and better academic achievements. *Capacity improvement* is the second subcategory. Students recognize their increasing independence, creativity, improving work with ICT and organizational skills. There is one more subcategory—*better participation*. Some students notice that during distance studies they attend lectures better and miss them less often. There were students who paid attention to more immediate feedback, and greater opportunities to ask teachers questions. These statements were combined in the fourth subcategory *better communication*.

Not a big category *improving emotional health* consists of two subcategories. One of them is *environmental suitability*. For some students, it was good to work in an environment without distractions in which they could better concentrate. The second subcategory is *tension and stress reduction*. Several statements indicate that the accounting process during distance learning resulted in less tension and stress.

After analyzing the advantages of distance studies, four categories were extracted: *deterioration of study organization*, *deterioration of study quality*, *deterioration of communication*, and *deterioration of health* (Table 4). Table 4 shows that the biggest category is the *deterioration of study organization*, which combines four subcategories, the most numerous of which (45% of all statements assigned to this category) is *increasing number of technical problems* (the Internet disruptions, use of different platforms). *Unadapted home environment* is the second subcategory. Students notice that it is more difficult to concentrate and force themselves to study in the home environment. In addition, there are often various extraneous stimuli. On the other hand, not all students have a necessary and suitable physical environment for work at home. Two more not numerous subcategories are extracted: *increasing workload* and *scheduling inconvenience*, which is understood as an inconvenient schedule and long lecture time.

The second category is *deterioration of study quality*. It consists of as many as five subcategories. The first two subcategories are richer in statements. This is *declining effectiveness of methods* (students miss practical activities, and group work, i.e., the use of methods based on communication and cooperation in remote classes). The other subcategory is *a decrease in motivation*, which occurs because distance learning is not as interesting as contact learning because the studies are less inclusive. The other three subcategories are small but no less important, as it becomes clear that students are self-critical and demanding of their studies. The subcategory *deterioration of attitude towards studies* combines the statements that students mention about their passivity, careless attitude towards studies, and decreasing self-discipline. In the fourth subcategory *deterioration of social skills*, students notice that formal participation in distance lectures has a negative impact on their social skills. The fifth subcategory *deterioration of study quality* combines the statements in which students' doubts are expressed about the clarity of accounting and the deteriorating quality of studies.

Deterioration of communication is the third category. It consists of two subcategories. Most of the statements (about 90% assigned to this category) are connected by the first subcategory *communication difficulties*. Students admit that communication with colleagues and teachers during distance studies is superficial, and there is a noticeable separation between group members. Several statements fell into another

Table 4. Disadvantages of distance teaching/learning (studying) [n (%)]

Categories	Subcategories	Statements	n (%)	
Deterioration of study organization: 71 (37.0)	Increasing technical problems: 32 (16.7)	Constant technical problems (e.g., the Internet outages)	26 (13.6)	
		Teachers use different online platforms; it is difficult to get oriented	6 (3.1)	
	Unadapted home environment: 25 (13.0)	Harder to focus, concentrate, & force yourself to study	18 (9.3)	
		Studying at home is more difficult than at university	4 (2.1)	
		Difficulties arising due to external stimuli	2 (1.0)	
		Home environment is not suitable for work/studies	1 (0.5)	
	Questionable online benefit: 6 (3.1)	Using online platform is of little benefit	4 (2.1)	
		Not all teachers want to work online	1 (0.5)	
		Online platform is not useful for my professional development	1 (0.5)	
	Increasing load: 4 (2.1)	Increasing learning load & many tasks are presented	4 (2.1)	
Scheduling inconvenience: 4 (2.1)		Long lecture time	3 (1.6)	
Deterioration of study quality: 57 (29.7)	Declining effectiveness of methods: 19 (9.9)	Fewer practical activities & lack of practice	8 (4.1)	
		Difficult work in teams (group work)	6 (3.1)	
		Little discussion & little discussion during studying	5 (2.6)	
	Decrease in motivation: 13 (6.8)	Decreasing & getting worse motivation to study	10 (5.2)	
		Learning is less inclusive	2 (1.0)	
		It is not interesting to study online	1 (0.5)	
	Deterioration of attitude towards studies: 11 (5.7)	Increases students' passivity	5 (2.6)	
		Students are more negligent about distance lectures	4 (2.1)	
		Online learning reduces self-discipline	2 (1.0)	
	Deterioration of social skills: 8 (4.2)	Development of social skills slows down	6 (3.1)	
		Participation in lectures is often formal	2 (1.0)	
	Deterioration of study quality: 6 (3.1)	Study quality deteriorates	3 (1.6)	
		Decreased clarity because it is not checked if accounting works are done honestly	3 (1.6)	
	Deterioration of communication: 43 (22.4)	Communication difficulties: 39 (20.3)	No direct & natural communication	15 (7.8)
			Difficult communication with colleagues & classmates	12 (6.3)
			No possibility of "live" contact	6 (3.1)
			Superficial communication	4 (2.1)
Remote communication creates some separation			2 (1.0)	
Communication gaps: 4 (2.1)		Complicated communication with teachers	2 (1.0)	
		Not always clear communication about lecture time	2 (1.0)	
Health deterioration: 21 (10.9)	Deterioration of emotional state: 16 (8.3)	Long work at computer is tiring	9 (4.7)	
		Extreme fatigue	5 (2.6)	
		More stress	2 (1.0)	
	Deterioration of physical condition: 5 (2.6)	Vision deteriorates & eyes get tired	3 (1.6)	
		Decreases physical activity	2 (1.0)	

Note: Totally 192 semantic units were extracted

subcategory *communication gaps*. More complicated communication with teachers was noticed, sometimes the time of lectures was not completely clear and so on.

The fourth category is *health deterioration*. It must be said that students are more concerned about their emotional health than their physical condition. In the subcategory *deterioration of emotional state*, we find statements about tiring, long-lasting work at the computer, great fatigue, and stress. The other subcategory *Deterioration of physical condition* refers to reduced physical activity and emerging vision problems.

After analyzing the recommendations for improving distance learning, two categories were extracted: *improving the realization of the study process* and *improving the organization of studies* (Table 5).

After analyzing the recommendations given by students, two categories can be discerned. The first one *improving the realization of the study process* has twice as many statements as the second one *improving the organization of studies*. The first category consists of five subcategories. The one that stands out the most is *improving content presentation*. Students want more visual material, ask to record the lecture material so that they can review it at leisure. In the second subcategory, *increasing interactivity* students prefer practical, group work tasks, and recommend teachers use more diverse tools. According to the number of combined statements, the third subcategory *improving feedback* is similar to the last subcategory. Students would like more frequent feedback from teachers about the completed work. They have doubts about the clarity of the

Table 5. Recommendations for improving quality of distance education (studying) [n (%)]

Categories	Subcategories	Statements	n (%)
Improving realization of study process: 81 (66.4)	Improving content presentation: 31 (25.4)	More visual material for lectures (e.g., video)	9 (7.4)
		Make videos of all lectures	8 (6.6)
		Lecture materials should be freely available	8 (6.6)
		Videos should be made more often	4 (3.3)
		Record information for non-lecture viewing	2 (1.6)
	Increasing interactivity: 18 (14.8)	More practical tasks	6 (4.9)
		More group work tasks	5 (4.1)
		Use more variety of programs during lectures	3 (2.5)
		More interactive tasks, less theory, & more practice are needed	2 (1.6)
		Teachers could use online tools to involve & attract students	2 (1.6)
		Encourage teachers to provide feedback on student work	6 (4.9)
	Improving feedback: 14 (11.5)	Implement systems to check for cheating during accounting	3 (2.5)
		More clear accounting/examination system is needed	2 (1.6)
		Make online work discussions	2 (1.6)
	Strengthening independent work: 12 (9.8)	Provide consultations of those subjects, where difficulties arise	1 (0.8)
		More tasks for self-learning & independent work	10 (8.2)
		Tasks for independent work must be adapted to be done online	1 (0.8)
		There could be more tasks & tests pre-prepared, then students who are more active, capable, or have more time could study independently 'ahead'	1 (0.8)
		Involve students more in lectures & activities	5 (4.1)
	Improving communication: 6 (4.9)	Promote cooperation & closer communication	1 (0.8)
		Raise teacher qualification for work with technologies	12 (9.8)
Improving organization of studies: 41 (33.6)	Improving teacher competencies: 21 (17.2)	Teachers could present material differently & make more use of various learning methods	4 (3.3)
		Use one online platform both for lectures & other activities	2 (1.6)
		Ensure that all teachers know how to use online platforms	2 (1.6)
		Lecturers could prepare lecture recording in advance	1 (0.8)
	Optimization of schedule: 13 (10.6)	Coordinate study schedules with students	4 (3.3)
		Reduce number of lectures per day	3 (2.5)
		Take shorter breaks between lectures	3 (2.5)
		Organize lectures in the first part of the day	2 (1.6)
		Not organize lectures in the evenings	1 (0.8)
	Improving study conditions: 7 (5.7)	More options & flexibility choosing to study online	3 (2.5)
		Provide opportunity to come to university, allow to work in auditoriums remotely (often there are no suitable conditions at home to listen/participate in lectures)	2 (1.6)
		Give students the possibility to choose themselves to study online or in another way	1 (0.8)
		All theoretical lectures organize remotely	1 (0.8)

Note: Totally 122 semantic units were extracted

accounting and whether their friends do not cheat during the accounting. *Strengthening independent work* is the fourth subcategory. It consists of hints about increasing tasks intended for self-study, independent work, and their adaptation to the online format. Although the fifth subcategory *improving communication* is not numerous in statements, however, it contains students' wishes for teachers to encourage students to be active participants in lecture activities, cooperating more closely with each other.

The second category, *improving the organization of studies* consists of three subcategories. Almost half of the statements are assigned to the first subcategory *improving teacher competencies*. It is obvious that some students are not satisfied with the insufficient qualification of teachers to work with ICT. In addition, teachers are offered to use more various online tools, to use more diverse teaching methods. The remaining two subcategories are no longer about the participants of the study process. One of them is *schedule optimization*. Students would like the timetable to be coordinated with them so that there are fewer lectures per day, and they take place in the first half of the day, with shorter breaks between lectures. Another subcategory is *improving study conditions*. Although not many statements are assigned to it, however, it is clear that all students have suitable conditions to work from home, so they would like to work at university even during distance studies. According to them, students should choose how to study: in a contact way or a distance one. Others think that all theoretical lectures could take place remotely.

Table 6. Distance education (studying) after the pandemic [n (%)]

Categories	Subcategories	Statements	n (%)
Positive evaluation of distance studies: 96 (78.0)	Suitability of distance studies: 57 (46.3)	I would like to continue studies online	14 (11.4)
		I value studying online positively	12 (9.8)
		This learning option is very suitable (online)	10 (8.1)
		Distance learning has more pros than cons	8 (6.6)
		I support online learning	6 (4.9)
		Distance teaching & learning is a great alternative to traditional learning	2 (1.6)
		After pandemic, you can successfully continue your studies on the Internet/online	2 (1.6)
		Distance learning is unequivocally a positive way of learning	1 (0.8)
		More subjects should be taught using online teaching	1 (0.8)
		There are no problems studying online	1 (0.8)
	Usefulness of distance learning: 39 (31.7)	Online learning is more convenient & modern	11 (8.9)
		It is just useful	10 (8.1)
		This is a great way to study because such studies are not limited by distance	6 (4.9)
		Learning on the Internet/online is more productive because it saves a lot of time	5 (4.1)
		It would be a good way to learn for those who do not have opportunity to learn directly	4 (3.3)
		Studying at home is the most convenient option	3 (2.4)
Negative evaluation of distance studies: 27 (22.0)	Decrease in need to study online: 16 (13.0)	We should not continue learning online because contact methods are much more pleasant to participate	6 (4.9)
		I do not like distance learning & I see more disadvantages than advantages in it	6 (4.9)
		After pandemic, I have no need for distance learning	4 (3.3)
	Irreplaceability of contact studies: 6 (4.9)	More interested in contact teaching	5 (4.1)
		Online learning will not replace contact education	1 (0.8)
	Deterioration of motivation & communication: 5 (4.1)	Learning online, motivation to learn is reduced, & concentration and memory are severely impaired	3 (2.4)
		After pandemic, we should get back in touch so that we do not lose our communication skills, & consultations could also be online	2 (1.6)

Note: Totally 123 semantic units were extracted

Opportunities and students' positions regarding distance studies after the pandemic are analyzed respectively. Two categories were extracted: *positive evaluation of distance studies* and *negative evaluation of distance studies* (Table 6). It can be seen that the category *positive evaluation of distance studies* (78% of all statements) consists of two subcategories *suitability of distance studies* and *usefulness of distance studies*. The statements in the first subcategory indicate that students would further want to study remotely because they positively value such studies, they are convinced that distance studies have more pluses than minuses, so even after the pandemic, they would like to study remotely. The other subcategory is *usefulness of distance learning*. Despite the previously expressed objections to distance studies, in students' opinion, they are a more modern, convenient, productive, and sustainable way of learning.

A little more than a fifth of statements are assigned to the second category *negative evaluation of distance learning*. It was possible to extract three subcategories from it. The first one is *decrease in the need to study online*. Students see more minuses than pluses in distance studies, after the pandemic, they would prefer contact learning because it is much more pleasant. The second subcategory *irreplaceability of contact studies* has got statements in which there are clear hints that contact studies raise interest, and no online learning will replace live studies. There were statements that clearly identified the problem—*deterioration of motivation and communication* (the third subcategory). Students are afraid of decreased motivation and deteriorating memory. In their opinion, contact studies would also help to clear up weakening communication abilities.

DISCUSSION

Aim of study was to analyze the first study cycle university students' position in aspect of distance study quality. Even though that distance studies have certain disadvantages, this is the way to learn in the future.

The results of the study show that essential positive aspects of distance learning are the convenience of studying and the cost-effectiveness of studying. These two selected categories account for more than 70% of all category weight. This indicates a fairly positive evaluation. The convenience of studying is basically expressed as accessibility and flexibility. Meanwhile, the cost-effectiveness of studying is largely defined as saving time and optimal use of it. A study conducted in Romania also showed that students highly value flexible learning (Crăciun, 2020). Independence from time and space, flexibility, and accessibility are indicated as extremely positive aspects (Er Turkuresin, 2020; Turan & Gurol, 2020). A study conducted in Spain also showed that higher satisfaction with distance studies was in the first year of the pandemic. Although students positively evaluated the use of innovative methodologies and technological resources, nevertheless they made a conclusion that their use required more work time (Sáiz-Manzanares et al., 2022). As already mentioned, students from different countries evaluated distance studies differently. From this point of view, the results obtained in the study contradict the findings obtained by the Albanian researchers. A study conducted in Albania involving 627 students from various fields of the study found that students rated classroom learning environments more positively than distance studies (Xhelili et al., 2021). The main challenges faced by the students were lack of internet connection and lack of technical equipment (provision).

When analyzing the disadvantages of distance learning, four categories have been extracted, which reflect the essential disadvantages (most disliked things). Most of the shortcomings are related to the deterioration of the organization of studies and the deterioration of the study quality. Meanwhile, in other countries, technological provisions (Xhelili et al., 2021), especially internet connection and unfavorable home environment for studies (Dhingra et al., 2021; Means & Neisler, 2020) are indicated as essential shortcomings. Lee et al. (2021) study showed that during the pandemic student satisfaction with distance learning decreased, although it remained at an average level (Lee et al., 2021), other studies record general dissatisfaction of students with online/remote learning (Tang et al., 2020). The biggest challenges for students are such as independent learning, time planning, and maintaining motivation. The conducted study highlighted another significant shortcoming, i.e., deterioration of practical activities, lack of practice in general, and rather ineffective group-team work. This is in line with the findings of other researchers that there are problems in implementing practical courses when studying remotely (Simsek et al., 2021). Also, quite often infrastructure deficiencies such as inadequate planning, weak ability to keep up with technology and knowledge progress, lack of financial recourses, etc. are indicated.

It is obvious that distance learning during the pandemic highlighted both the advantages and disadvantages of such studies. The insights provided by the subjects to improve the quality of distance learning are detailed and practically focused on improving the realization of the study process. It can be said that the organization of the study process causes less trouble than their realization remotely. Special emphasis is placed on improving content presentation and increasing interactivity. Meanwhile, improving the organization of studies is basically associated with improving the competencies of teachers. Similar results were shown by a study conducted in 2013 with students studying social sciences in the United States, China, and Spain. Learning content and course design were the most important factors affecting student satisfaction and were most likely to be improved (Barbera et al., 2013). Researchers from other countries mostly associate improvement with the necessary infrastructure improvement (Toubasi et al., 2022), claim that distance education requires greater student interaction, the need to increase student involvement, and academic independence (She et al., 2021).

Despite the highlighted advantages and disadvantages of distance studies, as well as related challenges, organization and implementation difficulties, distance studies are still evaluated positively, and it is believed that they should be continued even after the pandemic. According to the respondents, such studies are appropriate and useful. It is understood that there remains a need to constantly assess not only the organization of distance learning, but also to understand the complex relationship better and more fully between technology and studies (Miulescu, 2020), and to provide ongoing support to students. On the other hand, such a position varies greatly depending on the direction and nature of the study. For example, a study

conducted in Italy shows that despite some advantages, distance teaching/learning has important disadvantages, in students' opinion (e.g., lack of appropriate equipment and environmental conditions due to economic differences, poor relationships, suspension of internship programs, limitations of clinical training etc.), which eventually limit its use preparing medical people (Lollobrigida et al., 2022). Generally speaking, the position of the researchers is similar because distance education (studies) has both advantages and disadvantages. Although distance learning faces various challenges, however, in the future it can significantly replace conventional classroom teaching/learning (Alghanmi & Nyazi, 2022).

The conducted research study has several limitations. First, the study was conducted with the participation of the students of the study programs in the field of social sciences. It is likely that the position of the other study program students may be different. This requires further research. Secondly, the study did not analyze possible differences in terms of gender since the studied student population is extremely homogeneous. Third, the results of the study are based only on the students' position, therefore, it is important to collect feedback from different participants of the study process, e.g., university teachers.

CONCLUSIONS AND IMPLICATIONS

The organization and implementation of distance studies during the pandemic significantly contributed to a deeper and more detailed understanding of this study model. The obtained research results deepen this understanding and allow a broader look at the organization and implementation of distance studies in the post-pandemic period.

It was established that first-cycle university students generally evaluate distance studies positively because this study format is convenient (the most important aspects are accessibility, flexibility, and compatibility with work activities). The other important advantage is the cost-effectiveness of studying, which is expressed by saving time and money and using them efficiently. Flexibility is definitely important because students are diverse (in terms of expectations, motivation, study strategies, etc.). It is noteworthy that before the pandemic, the subjects had no experience in distance studies, so studying at a distance enriched them in a way: they gained new experience in working online, using technologies, improved their digital competence, and developed planning and independence skills. Some felt more satisfied with their studies or even achieved better academic results.

Obviously, distance studies have certain disadvantages. It was established that the deterioration of the organization of studies, which is associated with technical problems, unfavorable home environment for studies, etc., is considered to be the prevailing disadvantage. Distance studies are also associated with deterioration in the quality of studying, considering that motivation decreases, the effectiveness of study methods also decreases. The quality of studying also decreases due to the lack of a variety of effective methods used in distance studies. A new tendency comes to light that after switching to distance studies during the COVID-19 pandemic, this method of studying affected some students' motivation.

Despite the revealed shortcomings, there are clearly visible opportunities for improving the quality of distance studies. Improving the realization of the study process is undoubtedly considered the most important area of quality improvement since the university (as the host of the study process) assumes the main responsibility for quality assurance. Improving quality is primarily associated with improving the presentation of study content and increasing interactivity. Improving the organization of studies is less pronounced, considering that this is not a particularly problematic area. Unexploited opportunities can be seen in improving the presentation of teaching content, increasing interactivity, ensuring better feedback, paying more attention to students' independent work, and promoting communication in student groups. When improving the organization of studies, it would be necessary to invest more in teacher competence improvement and to think about creating a more flexible schedule.

Nevertheless, the possibilities of continuing studies remotely in the post-pandemic period are evaluated extremely positively (the dominating evaluation). This relates to two significant things—the suitability of such studies and their usefulness. The negative evaluation of distance studies after the end of the pandemic is insignificant.

It is very useful for higher education institutions to analyze the situation of distance studies, to see its consequences, and to understand them because it can help to organize the study process in a better way; for both teachers and students to choose more suitable technological approaches, to constantly improve in this field. It is likely that the results of the study will adequately contribute to the improvement of distance studies in university studies, especially in the field of social science studies. The issue of the implementation of distance studies, i.e., effective teaching and study quality assurance (while maintaining the same, equal standards for distance and non-distance study models) remains a relevant area of scientific research and practical solutions.

Author contributions: All authors were involved in concept, design, collection of data, interpretation, writing, and critically revising the article. All authors approve final version of the article.

Funding: The authors received no financial support for the research and/or authorship of this article.

Ethics declaration: Authors declared that the highest ethical standards were followed while the research was conducted. This study was approved by the SMC „Scientia Educologica“ Review Board (10 January 2022, No. 22-01-E. Informed consent was obtained for all participants.

Declaration of interest: Authors declare no competing interest.

Data availability: Data generated or analyzed during this study are available from the authors on request.

REFERENCES

- Advilonienė, Ž. (2022). Auditorinio ir nuotolinio kontaktinio mokymo (si) virtualioje erdvėje integravimo prielaidos aukštojo mokslo koleginiu ir universitetiniu lygmeniu: Studentų požiūris ir patirtys [Prerequisites for the integration of face-to-face and distance contact teaching/learning in virtual space in higher education at college and university level: Students' views and experiences]. *Pedagogika*, 147(3), 58-80. <https://doi.org/10.15823/p.2022.147.3>
- Alghanmi, S. S., & Nyazi, A. K. (2022). Exploring students' engagement in distance learning during the pandemic of COVID19: A correlational exploratory design. *Turkish Online Journal of Educational Technology*, 21(3), 46-62.
- Alhammadi, S. (2021). The effect of the COVID-19 pandemic on learning quality and practices in higher education—Using deep and surface approaches. *Education Sciences*, 11, 462. <https://doi.org/10.3390/educsci11090462>
- Barbera, E., Clara, M., & Linder-Vanberschot, J. A. (2013). Factors influencing student satisfaction and perceived learning in online courses. *E-Learning and Digital Media*, 10(3), 226-235. <https://doi.org/10.2304/elea.2013.10.3.226>
- Benhima, M. (2021). Moroccan English department student attitudes towards the use of distance education during COVID-19: Moulay Ismail University as a case study. *International Journal of Information and Communication Technology Education*, 17(3), 105-122. <https://doi.org/10.4018/IJICTE.20210701.0a7>
- Boddy, C. R. (2016). Sample size for qualitative research. *Qualitative Market Research*, 19(4), 426-432. <https://doi.org/10.1108/QMR-06-2016-0053>
- Can, N., & Himmetoglu, B. (2021). An evaluation for the usage of grounded theory design in educational administration. *Usak University Journal of Educational Research*, 7(3), 1-20.
- Chytry, V., Kubiátko, M., & Pacovsky, L. (2022). Possible factors determining satisfaction of distance education among university students. *Problems of Education in the 21st Century*, 80(6), 811-822. <https://doi.org/10.33225/pec/22.80.811>
- Čiegis, R., Šimanskienė, L., & Ramanauskas, J. (2022). Nuotolinės studijos ar nuotolinės paskaitos? Paskaitos auditorijoje ar nuotolinės paskaitos? [Distance studies or distance lectures? Lectures in the auditorium or distance lectures?]. *Regional Formation and Development Studies*, 36(1), 114-120. <https://doi.org/10.15181/rfds.v36i1.2393>
- Coners, A., & Matthies, B. (2014). A content analysis of content analyzes in is research: Purposes, data sources, and methodological characteristics. *PACIS 2014 Proceedings*, 111.
- Crăciun, D. (2020). The impact of emergency remote teaching on science pre-service teachers at the West University of Timișoara. *Revista de Pedagogie*, 2, 7-30. <https://doi.org/10.26755/RevPed/2020.2/7>
- Devi-Prasad, B. (2019). Qualitative content analysis: Why is it still a path less taken? *Forum Qualitative Sozialforschung Forum*, 20(3). <https://doi.org/10.17169/fqs-20.3.3392>

- Dhingra, S., Pasricha, N., Sthapak, E., & Bhatnagar, R. (2021). Assessing the role of internal motivation and extrinsic factors on online undergraduate medical teaching in a resource-poor setting during COVID-19 pandemic in North India: An observational study. *Advances in Medical Education and Practices*, 12, 817-823. <https://doi.org/10.2147/AMEP.s312812>
- Didkivska, S., & Vakaliuk, T. A. (2022). Students' opinion on the quality of distance learning during the Ukrainian pandemic reality. *Journal of e-Learning and Higher Education*, 2022, 943076. <https://doi.org/10.5171/2022.943076>
- Er Turkuresin, H. (2020). Examination of distance education practices conducted during the COVID-19 pandemic regarding the views of preservice teachers. *Journal of National Education*, 49(Special Issue/2020-1), 597-618. <https://doi.org/10.37669/milliegitim.787509>
- Faize, F. A., & Nawaz, M. (2020). Evaluation and Improvement of students' satisfaction in online learning during COVID-19. *Open Praxis*, 12(4), 495-507. <https://doi.org/10.5944/openpraxis.12.4.1153>
- Jordan, J., Lynch, U., Moutray, M., O'Hagan, M.-T., Orr, J., Peake, S., & Power, J. (2007). Using focus groups to research sensitive issues: Insights from group interviews on nursing in the Northern Ireland "troubles." *International Journal of Qualitative Methods*, 6(4), 1-19. <https://doi.org/10.1177/160940690700600401>
- Lamanauskas, V., & Makarskaitė-Petkevičienė, R. (2021). Distance lectures in university studies: Advantages, disadvantages, improvement. *Contemporary Educational Technology*, 13(3), ep309. <https://doi.org/10.30935/cedtech/10887>
- Lamanauskas, V., & Makarskaitė-Petkevičienė, R. (2022). The quality of distance studies: Second-cycle students' position. *Online Journal of Communication and Media Technologies*, 12(4), e202236. <https://doi.org/10.30935/ojcm/12469>
- Lawless, C. J., & Richardson, J. T. (2002). Approaches to studying and perceptions of academic quality in distance education. *Higher Education*, 44, 257-282. <https://doi.org/10.1023/A:1016315114558>
- Lee, K., Fanguy, M., Lu, X. S., & Bligh, B. (2021). Student learning during COVID-19: It was not as bad as we feared. *Distance Education*, 42(1), 164-172. <https://doi.org/10.1080/01587919.2020.1869529>
- Lollobrigida, M., Ottolenghi, L., Corridore, D., Pingitore, G., Damiano, C., Serafini, G., & De Biase, A. (2022). Student evaluation of distance learning during the COVID-19 pandemic: A cross-sectional survey on medical, dental, and healthcare students at Sapienza University of Rome. *International Journal of Environmental Research and Public Health*, 19, 10351. <https://doi.org/10.3390/ijerph191610351>
- Lune, H., & Berg, B. L. (2017). *Qualitative research methods for the social science*. Pearson.
- Maqableh, M., & Alia, M. (2021). Evaluation online learning of undergraduate students under lockdown amidst COVID-19 pandemic: The online learning experience and students' satisfaction. *Children and Youth Services Review*, 128, 106160. <https://doi.org/10.1016/j.childyouth.2021.106160>
- Maras, N., & Nemet, B. (2021). Life quality and distance learning during the COVID-19 pandemic from the perspective of university students: A case of the Republic of Croatia. *Psychology and Education*, 58(3), 2829-2837.
- Marinoni, G., Van't Land, H., & Jensen, T. (2020). The impact of COVID-19 on higher education around the world. *International Association of Universities*. https://www.iau-aiu.net/IMG/pdf/iau_covid19_and_he_survey_report_final_may_2020.pdf
- Means, B., & Neisler, J. (2021). Teaching and learning in the time of COVID: The student perspective. *Online Learning Journal*, 25(1), 8-27. <https://eric.ed.gov/?id=EJ1287125>
- Miulescu, M. L. (2020). Digital media: Friend or foe? Preschool teachers' experiences on learning and teaching online. *Revista de Pedagogie [Journal of Pedagogy]*, 2, 203-221. <https://doi.org/10.26755/RevPed/2020.2/203>
- Morkevičius, V. (2005). Terra incognita: Kiekybinė viešosios politikos diskurso turinio analizė [Terra incognita: Content analysis of public policy discourse]. *Viešojo Politika ir Administravimas*, 11, 74-85.
- Morse, J. M. (2015). Analytic strategies and sample size. *Qualitative Health Research*, 25(10), 1317-1318. <https://doi.org/10.1177/1049732315602867>
- Nausėda, E., Purauskas, D., & Parišauskienė, D. (2021). Nuotolinių studijų iššūkiai KVK VF logistikos vadybos studijų programos studentų požiūriu [Challenges of distance studies from the point of view of students of KVK VF logistics management study program]. *Verslas, technologijos, biomedicina: inovacijų žvalgos [Business, Technology, Biomedicine: Innovation Insights]*, 1(12), 342-351. <https://vb.kvk.lt/object/elaba:100931194/>

- Neuendorf, K. A. (2002). *The content analysis guidebook*. SAGE.
- Osman, M. E. T. (2020). Global impact of COVID-19 on education systems: The emergency remote teaching at Sultan Qaboos University. *Journal of Education for Teaching*, 46(4), 463-471. <https://doi.org/10.1080/02607476.2020.1802583>
- Palvia, S., Aeron, P., Gupta, P., Mahapatra, D., Parida, R., Rosner, R., & Sindhi, S. (2018). Online education: Worldwide status, challenges, trends, and implications. *Journal of Global Information Technology Management*, 21(4), 233-241. <https://doi.org/10.1080/1097198X.2018.1542262>
- Patton, M. (1990). *Qualitative evaluation and research methods*. SAGE.
- Rusu Mocănașu, D. (2020). Determining the sample size in qualitative research. In M. Bugiulescu (Ed.), *Proceedings of the International Multidisciplinary Scientific Conference on the Dialogue Between Sciences & Arts, Religion & Education* (pp. 181-187). Ideas Forum International Academic and Scientific Association. <https://doi.org/10.26520/mcdsare.2020.4.181-187>
- Sáiz-Manzanares, M.-C., Casanova, J.-R., Lencastre, J.-A., Almeida, L., & Martín-Antón, L.-J. (2022). Student satisfaction with online teaching in times of COVID-19. *Comunicar: Media Education Research Journal*, 30(70), 31-40. <https://doi.org/10.3916/C70-2022-03>
- Sandelowski, M. (1995). Sample size in qualitative research. *Research in Nursing & Health*, 18(2), 179-183. <https://doi.org/10.1002/nur.4770180211>
- She, L., Ma, L., Jan, A., Sharif Nia, H., & Rahmatpour, P. (2021). Online learning satisfaction during COVID-19 pandemic among Chinese university students: The serial mediation model. *Frontiers in Psychology*, 12, 743936. <https://doi.org/10.3389/fpsyg.2021.743936>
- Simsek, I., Kucuk, S., Kose Biber, S. & Can, T. (2021). Online learning satisfaction in higher education amidst the COVID-19 pandemic. *Asian Journal of Distance Education*, 16(1), 247-261. <https://doi.org/10.5281/zenodo.5047848>
- Steponėnienė, E., & Narbuntaitė, G. (2021). COVID-19 poveikio studentų akademiniam ir socialiniam gyvenimui projekto veiklų ir tyrimo rezultatų apibendrinimas [Summary of project activities and research results of the impact of COVID-19 on the academic and social life of students]. MRU. <https://www.mruni.eu/wp-content/uploads/2021/12/Pranesimu-rinkinys.pdf>
- Strukčinskaitė, V. Strukčinskienė, B., Strazdienė, N., & Griškoniš S. (2021). Universiteto studentų gyvenimo ypatumai pandemijos metu: Darbo kompiuteriu aplinka ir fizinis aktyvumas [University students' lifestyle during pandemic: Focus on computer-based work and physical activity]. *Sveikatos Mokslai [Health Sciences]*, 31(6), 14-18. <https://doi.org/10.35988/sm-hs.2021.195>
- Subedi, K. R. (2021). Determining the sample in qualitative research. *Scholars' Journal*, 4, 1-13. <https://doi.org/10.3126/scholars.v4i1.42457>
- Tang, T., Abuhmaid, A. M., Olaimat, M., Oudat, D. M., Aldhaeabi, M., & Bamanger, E. (2020). Efficiency of flipped classroom with online-based teaching under COVID-19. *Interactive Learning Environments*, 31(2), 1077-1088. <https://doi.org/10.1080/10494820.2020.1817761>
- Toubasi, A. A., Al-Harasis, S. M., Obaid, Y. Y., Albustanji, F. H., & Kalbouneh, H. M. (2022). Quality of distance learning after one and a half year from its integration due to the COVID-19 pandemic: A cross-sectional study at the University of Jordan. *Cureus*, 14(12), e32642. <https://doi.org/10.7759/cureus.32642>
- Turan, Z., & Gurol, A. (2020). Emergency transformation in education: Stress perceptions and views of university students taking online course during the COVID-19 pandemic. *Hayef: Journal of Education*, 17(2), 222-242. <https://doi.org/10.5152/hayef.2020.20018>
- Xhelili, P., Ibrahim, E., Rruci, E., & SHEME, K. (2021). Adaptation and perception of online learning during COVID-19 pandemic by Albanian university students. *International Journal on Studies in Education*, 3(2), 103-111. <https://doi.org/10.46328/ijonse.49>
- Zouiri, L., & Kinani, F. E. (2022). An analysis of students' satisfaction with distance learning in Moroccan universities during the COVID-19 pandemic. *Public Administration and Policy: An Asia-Pacific Journal*, 25(3), 293-309. <https://doi.org/10.1108/PAP-08-2022-0102>

