

COVID-19 DIFFICULTIES IN THE REMOTE LEARNING PROCESS AND OPPORTUNITIES TO OVERCOME THEM: THE PERSPECTIVE OF FUTURE TEACHERS

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ABSTRACT

The study explores the difficulties experienced by second-year students of the professional bachelor's study program "Teacher" at the Faculty of Education, Psychology, and Art of the University of Latvia during the remote learning in three courses in the first and second COVID-19 wave, in 2020, spring and autumn. The research provides students', future teachers' perspectives on both – experienced difficulties during remote learning in COVID-19 circumstances and possible solutions to overcome challenges. Data were obtained from students' self-reflections which were filled in at the end of the spring semester in June 2020 at the end of autumn semester in January 2021. Totally 230 students completed self-reflection, 223 statements (97 in June and 126 in December) were selected and analyzed using inductive thematic analysis, as result 9 themes emerged: technology related, physical, cognitive, social-emotional, motivation related, mental health-related, lack of recourses, insufficient learning skills, difficulties to apply professional knowledge and skills in educational praxis. In the first COVID-19 wave, there were identified two themes (extra additional workload and insufficient digital skills) that were not present in the second. However, the second added another theme – health problems due to COVID-19. There were students both in the first and second COVID-19 wave who did not consider this time and remote learning as a difficult one.

Keywords: COVID-19, difficulties, future teachers, higher education, online learning, remote learning.

Introduction

The COVID-19 pandemic has caused a global health and socio-economic crisis and strongly affected many economic sectors and, among others, it has impacted higher education. Since then higher education is facing difficulties at various levels. One of the challenges was the rapid transition from face-to-face teaching to remote teaching and learning. Following the

Law of Education of Latvia, the remote learning is a part of the full-time educational process in which learners study, including using information and communication technologies, without being physically in the same room or place of study together with the teacher (Izglītības likums [Law of Education], 1998, amended in 2020). At the University of Latvia, the transition to remote learning in the first COVID-19 wave took place on March 13, 2020, in the spring semester, when students had to adapt to remote learning, most often in front of a computer screen. Neither students nor lecturers were ready for such unexpected transformations (Vindača & Abuže, 2020). At the beginning of the autumn semester, the face-to-face lectures and seminars resumed, but after a short while, in October 2020, the remote learning were started again.

Since the beginning of the pandemic several extensive studies on the impact of COVID-19 on education, including higher education, have been conducted in Latvia both by higher education institutions researchers and nongovernmental organizations. Researchers from the University of Latvia investigated the use of technologies and digital platforms (Daniela et al., 2020) during the COVID-19, Riga Stradiņš University lead the research on university lectures' digital competencies in a remote learning (Jansone-Ratinika et al., 2020), Latvia's Student Union researched student's financial situation (LSM, 2020). The current research was started by the University of Latvia lecturer in March 2020, while working with second-year students of the professional bachelor's study program "Teacher" at the Faculty of Education, Psychology, and Art of the University of Latvia in the courses "Inclusive and special education" "Diversity in the school pedagogical process" "Classroom management". The necessity for research was driven by practice to understand better the impact of COVID-19 and remote learning on students and to find out the best possible solutions to support students during the organization of the study process. Therefore, the study aimed to explore difficulties students faced during the remote learning study process in COVID-19 situation (first and second wave) and to find out what helped them overcome the difficulties? There were two main research questions introduced: RQ 1. What kind of difficulties did students face during the remote study process during COVID-19 (first and second wave)? RQ 2. What helped them to overcome the difficulties?

Methodology

The research was carried out from March 2020 to January 2021. This descriptive study follows a qualitative methodology. To build an understanding of students', future teachers' experience in the new teaching and learning circumstances in the pandemic situation, thus to explore new

phenomena in the higher education context, the study used interpretive research paradigm (Taylor & Medina, 2011). In data analyses, there were used inductive thematic analyses (Braun & Clark, 2006). Inductive thematic analyses first of all were chosen due to flexibility. Secondly, the choice was based on the underpinning that at the beginning of COVID-19 little was known about the pandemic effect on students learning in higher education.

The data was acquired through students' written self-reflection at the end of the spring semester during the first wave of COVID-19 (June 2020) and at the end of the autumn semester during the second wave of COVID-19 (January 2021). Self-reflection at the end of the course is performed regularly and is a quite typical way to get feedback from students after completing the study course. Within regular written self-reflection students were asked voluntarily to write freely about the difficulties of COVID-19 time, remote learning, and what have helped them to overcome those difficulties. Students (before filling in the self-reflection) were orally informed that the obtained results will be used for research, will be analyzed, taking into account the ethical aspects, anonymously and only in a summarized way.

230 second-year students' of professional bachelor's study program "Teacher" at the Faculty of Education, Psychology, and Art of the University of Latvia (full-time and part-time full-time students), future teachers, filled in the self-reflection after completing study courses "Inclusive and special education" "Diversity in the school pedagogical process" and "Classroom management". After collecting them, all student self-reflections were anonymized. In the next step, only student statements related to COVID-19 and remote learning were selected and analyzed. There were a total of 223 statements: 97 from the first COVID-19 period (written in June) and 126 from the second COVID-19 period (written in December), selected. Data collection was followed by the data analyses, using inductive thematic analysis (Braun & Clark, 2006). As is acknowledged by Braun and Clark (2006), thematic analysis involves searching the data and finding repeating patterns of meaning; it identifies, analyses, and reports patterns (themes) within data. After the data corpus was selected (statements), the researcher started reading and rereading the data. After that, codes were identified. The coding was done manually, after which codes were arranged in mind maps. First themes emerged. Established themes were reviewed several times over the period. Final themes were described and analyzed, and some data matches were performed. To avoid pre-existing assumptions, the data was re-examined by the researcher several times during the research process. In the data analyses, all 6 steps suggested by Braun and Clark (2006) were implemented: familiarizing with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, producing the report. The ethical aspects were taken in mind both during the collecting the data and analyzing.

Results

Answering the RQ 1, the main themes (both in the first and second COVID-19 wave) were established as a result of inductive thematic analyses (Fig. 1).

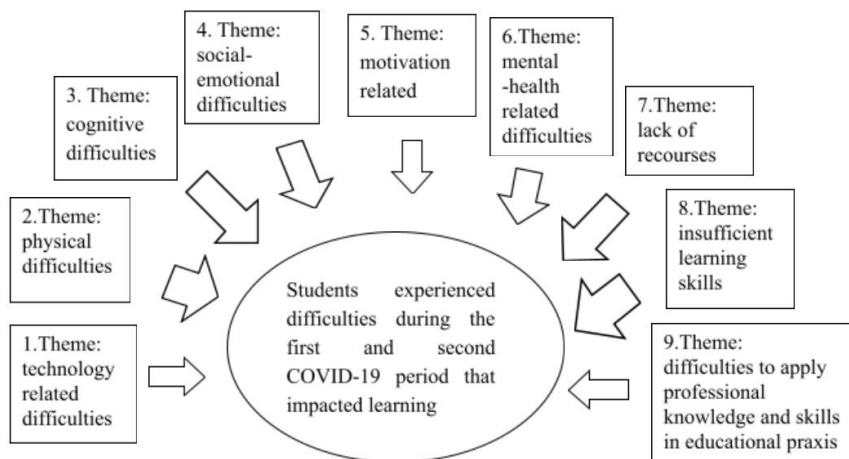


Figure 1. Thematic map of common student's difficulties during the first and second COVID-19 period

1. Theme: technology-related difficulties. Students admitted that they experienced a lot of technology-related difficulties. Limited Internet connection or weak coverage during the online simultaneous lectures and seminars left students without the possibility to participate in online lectures. As students could only partially hear what the lecturer said, some parts of the information from the lecture were missing.

“The Internet coverage was not so good, so there were lectures in which I could hear the sentences incompletely or not at all.”

There were problems with computers that broke down, and due to the situation in the country, it was hard to replace them with new ones. Many parents of school children and students at that time were looking for new computers, prices went up and there were limited number of good and affordable computers available. Students admitted that they had technical problems due to old, outdated computers and programs. Sometimes just electricity disappeared during the lectures.

“There were more technical difficulties – weak internet, program problems, once the electricity was lost and the computer and phone were discharged, while the electricity returned, I had to miss the start of the lecture.”

2. Theme: physical difficulties. Students experienced physical difficulties as they had to sit long hours in front of the computers – both during the online lectures and seminars and even after that to do their independent work. Sitting in front of a computer for a long time made students feel tired and physically exhausted. Students admitted that they had “tired back” “pain in knees” “painful eyes”.

3. Theme: cognitive difficulties. Students experienced several difficulties related to cognition during the remote learning process. The major challenge was to keep the attention and follow up the lecture or seminar, as there were lots of distractions around.

“At home, something is constantly distracting and it is difficult to focus fully on the learning process with undivided attention. It’s much harder to keep an eye on the computer as a living person.”

“The greatest difficulties arose during the lectures in keeping attention and focusing because before the lectures I had been sitting at the computer for about 3–4 hours, which was morally and physically tiring.”

Some students experienced difficulties capturing information, following the information, and remembering it:

“It was difficult to grasp the information provided, which was significant but in large quantities. In-person, the content of lectures and classes is better remembered.”

In some cases, there were difficulties in understanding the tasks. That is why students had to ask university lecturers to repeat the task several times. Such extra explanations from lecturers shortened the lecture or seminar time when lecturer could explain the new topic. Students had to rely only on the verbal or written information provided by the teacher. On contrary, in the face-to-face lectures or seminars students could easily turn to another student for advice and explanation. During the remote learning, such peer support was less obvious. Students admitted that during face-to-face learning nonverbal communication was an important part of learning.

“I called the course mates several times because I did not understand the instructions and the task I have to do, so far before remote learning, I have not noticed anything like that in myself.”

4. Theme: social-emotional difficulties. During the remote learning students were missing life communication both between students and lecturers. Students admitted that generally they were missing people and felt socially isolated. Remote communication in remote learning could only replace it partially, and not for all.

“There was a great shortage of people and face-to-face communication, but it’s much nicer than remotely.”

Students were missing opportunities to work together face-to-face in group works, participate in lively discussions. Remote learning made

communication less effective. Although students used other communication channels (e-mail, Whatsup, Facebook, etc), it took much more time and it was more complicated, so it left students with some kind of frustration. As it was admitted by students, it was not possible to put in the written text all the necessary details, emotions, concerns, and real meaning. To write an email took a much longer time if compare with face-to-face conversation and there was a waiting time for response to consider, sometimes even 5 days. Even before COVID-19 students preferred to be engaged in person communication instead of e-communication. Students felt that they had limited opportunity to receive feedback from lecturers. Some students hesitated to ask for feedback. It was much harder to organize consultations, as it took an extra effort to do it.

“It’s hard to get direct feedback during COVID-19, but you have to live with it and be understandable because there’s a lot of work for everyone.”

“It was not possible to talk in person and ask the teacher because I will not write an e-mail about every detail.”

Students had some trouble with time planning during the pandemic. Even if the time was more because they did not have to go to university, many other things were taking up the time. There was some kind of fatigue from long-term changing conditions at work and home.

“Because you don’t have to go anywhere, it’s harder to plan your time, because it seems like it’s a lot, but you have a feeling that you are doing less and you are constantly late for something. “

Disrupted daily routines were another difficulty. Students’ life changed and they had to make a new daily routine, but it was not as easy as it seems. Changing the habits took time.

“Without going to school every day, but sitting at home, I lose my routine, of course, I had to figure out, how to change it.”

The intensity of independent work and being alone, socially and physically isolated created new challenges for students to perform self-directed learning.

5. Theme: motivation-related. Due to the new circumstances, students experienced a lack of motivation to continue their studies, it resulted in being late with assignments, missing lectures, or even quitting studies:

“During COVID-19, I face a lack of motivation, the desire to learn fell by 50%, which often resulted in missed lectures or being late for them and late submission of assignments.”

6. Theme: mental health-related difficulties. COVID-19 situation for same students exacerbated mental health problems:

“I had difficulties with my mental health condition, I don’t want to make any excuses, but due to COVID-19, I showed signs of severe depression.

Of course, because of that, I lost motivation and any strength to do things for both school and life. But I'm trying to deal with it now."

COVID-19 took everyone by surprise, so some students experienced emotional breakdowns, depressions, and panic attacks. As those students admitted, it was a new reality they have learned about themselves, as they did not experience it before.

7. Theme: lack of recourses. During the lockdown, the lack of resources was a common difficulty among the students, especially for those who were living in rural areas. The unavailability of online resources made students anxious. Libraries did not work or worked partially.

"It was difficult to get books in libraries because many did not work."

"No books were available in rural libraries to help with courses. You have to pay money to order a book from Latvia's National Library."

8. Theme: insufficient learning skills. Another difficulty explained by students concerned the new learning skills in front of a computer. Learning in the room together with other students was considered different learning if compare with learning during the remote learning at home. The new learning skills were required.

"It was also difficult to write something down on the notebook, to structure the information."

9. Theme: difficulties to apply professional knowledge and skills in pedagogical praxis. As part of the professional education of the future teacher is a school practice. The students admitted that it was almost impossible to do it. The remote learning process at school made it impossible to practice important skills for teaching pupils face-to-face. According to the students, there are things in pedagogy that cannot be learned remotely.

"It was not possible to try many techniques remotely with pupils, we learned things that we could not practice."

"Difficulties during COVID-19 were caused by remote learning in practical classes, for example, there was no opportunity to act out situations in life. If you do it in front of a computer, it is no for real."

In response to RQ 1, two themes emerged only in the first COVID-19 period: insufficient digital skills and additional workload given by lecturers. At the beginning of COVID-19, it was quite a common situation when extra work was given to students.

"During COVID-19, it was difficult only at the beginning, because all the lecturers asked to do the work, which had to be completed for several hours (more than the lecture time) and it was not easy."

When lecturers started to provide simultaneous online lectures regularly, the situation changed.

"Lectures in the MT (Microsoft Team) system was a good solution, everything went back to normal."

In the second wave of COVID-19, the theme about insufficient digital skills and the extra workload was missing in the data, but a new theme emerged: health difficulties related to COVID-19. Students or family member were either ill with COVID-19, or recovering after COVID-19.

“The difficulty was that exactly in the days before 28th of December our family fell ill with C19, so it was difficult to get to write and complete the last work. But with God’s help and strength, my husband’s support, I managed to finish everything and then could have rest.”

Although students were asked to reflect on the difficulties during COVID-19, some students did not consider COVID-19 time and remote learning as a difficult one, in contrary, they stated that changes provoked by COVID-19 have been beneficial to them. Those students admitted that it was very pleasant to stay at home and not to go to the university.

“Very cool that in winter, in the cold, in the morning you do not have to go to university, but you can listen to lectures from home.”

By staying at home, they had extra time to do other things, to learn independently, to “dig deeper”. Students admitted that by learning remotely they were able to keep up with duties at home, for example, continue to study with a new-born baby at home or look after the prolonged ill mother. Some students were very optimistic about the new form of learning, they explained, that the new experience encouraged them to learn and to try new educational platforms, digital tools, and find new recourses. The number of such positive comments increased during the second COVID-19 wave (3 statements in the first period and 16 in the second).

Answering the RQ 2, the three main themes (both in the first and second COVID-19 wave) were established as a result of inductive thematic analyses: quality of the study implementation, social and professional support (Fig. 2).

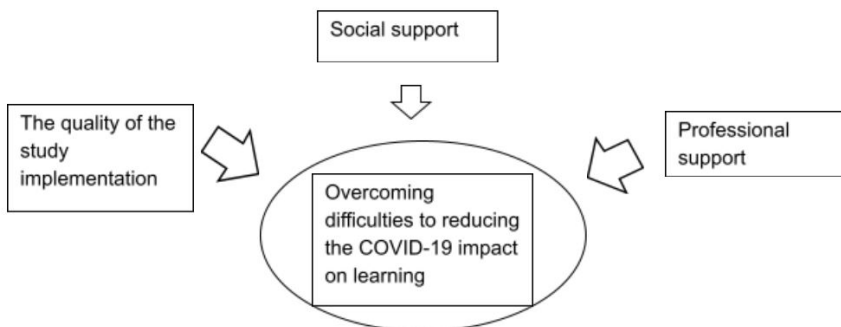


Figure 2. Thematic map of overcoming the difficulties during the first and second COVID-19 period

1. Theme: the quality of the study implementation. Students admitted that the fact that all lectures and seminars took place online simultaneously following schedule was very important and helped them to keep up with the study process. Certain rules and routines established at the beginning of the course or the beginning of the remote learning period helped students to keep up with learning and new circumstances.

“This course taught me that work remotely is very successful if certain rules are set for it (mandatory greeting, notation that you have joined the lecture, asking questions, presentation of works).”

Course objectives, learning outcomes, clear instructions, how, when, and what to do, predictable assessment procedures, effective feedback, student self-reflection, summary at the end of the lecture helped students to learn and feel successful.

“Repetition of the content – both at the end of the lecture and at the beginning of the next lectures helped us to master the content of the course, which did not allow for us to lose focus during the lectures. At the end of the lecture, there was a summary provided or we were asked to reflect about our learning.”

Various forms and methods in the study process: lectures, videos, seminars, discussions, situation games, modeling, pair work, group work, experience sharing, supervision, as well as meaningful independent work and practice encouraged students' active participation and engagement in the online classes.

“Methods in lectures – mostly it is very difficult to receive and work productively in lectures of other courses, but here” there were no options – could be called at any time, group work was organized, etc. It all helped a lot.”

Provided resources in e-studies (e-learning platform of the University of Latvia) – presentations, additional materials, self-examination tests; library and internet resources – books, e-books, were considered important by students.

2. Theme: social support. During the pandemic and remote learning, students could appreciate even more than before the support they were getting from their group mates. Students admitted that such support was taking place because they were second-year students, so they had time to get to know each other, make friendships within the groups. The short face-to-face learning period at the beginning of the second semester was helpful, learning groups were established. They could support each other both during the online learning and during the independent learning time. Most of group mates were open minded, ready to cooperate.

“If quite honest-my group mates, who helped a lot in stressful situations.”

“The group mates helped to learn the content of the course the most because, by online learning, we all tried to help each other and explain if something was not understood.”

Another’s social support system was university lecturers who helped students to overcome the difficulties. There were provided several opportunities to communicate – before, between lectures, seminars, and even during the class. Lecturers stayed longer online, answered to questions or engaged in discussions during the simultaneous online class breaks. The chat was used for asking and answering questions.

“Lecturers communication with us helped to master the content of the course”.

“Even if I had a problem, I noticed it quickly and then I communicate and was able to solve it, and the group mates and the lecturers were so responsive and ready to offer help.”

3. Theme: professional support. As it was admitted by students who had experienced some mental health issues, they appreciated very much the professional support provided by the University of Latvia Psychological service. The service was free of charge for University students and it was very much appreciated professional support the students got.

“For the first time in my life, I experienced an emotional breakdown, in November I even asked help from UL psychologist”.

Discussion

This article has discussed and highlighted aspects of the impact of the COVID-19 pandemic and remote learning in the perception of second-year students of the professional bachelor’s study program “Teacher” at the Faculty of Education, Psychology, and Art of the University of Latvia in the courses “Inclusive and special education” “Diversity in the school pedagogical process” “Classroom management”. The results of current research coincide with finding from other research in Latvia and worldwide, both in the context of COVID-19 impact on the general population and specifically on higher education students. Most of the difficulties described by students, future teachers are common across universities, programs, and countries (Tab. 1).

Three themes emerged from the current study that was not specifically mentioned in any other study so far: physical difficulties, insufficient learning skills in front of the computer, difficulties of future teachers to apply professional knowledge and skills in pedagogical praxis. Two themes emerged in the first COVID-19 period of remote learning (problems with digital skills and extra workload). Students experienced problems with digital skills at the initial phase of remote learning (Adedoyin & Soykan, 2020).

Table 1. Difficulties in the remote learning process during the COVID-19

Themes	Coincide with other research findings
Technology related difficulties	No personal computer (Said-Hung et al., 2020), no internet access (Händel et al., 2021, Lāma & Lāma, 2020, Adedoyin & Soykan, 2020), problems with internet or outdated (or incomplete) equipment old, computer programs (Lāma, & Lāma, 2020).
Mental health issues	General population increases in self-reported anxiety, depressive thoughts, suicidal ideation, and being currently depressed/distressed (Vrublevska et al., 2021, Centers for Disease Control and Prevention (CDC), 2021), psychological challenges (Kruks et al., 2020). The lockdown caused ‘panic’ and ‘anxiety’ (la Velle et al., 2020), which followed by students insecurity and anxiety due to isolation (physical and social isolation) (Jung et al., 2021), loneliness and stress-induced emotions (Händel et al., 2020 Lāma, & Lāma, 2020, De Man et al., 2021), anxiety and depression heightened by family worries (Kee, 2021), there is more need for psychological counseling (Naidoo & Cartwright, 2020).
Lack of recourses	Students experience difficulties in accessing study materials and textbooks (Murphy & Shelley, 2020, Lāma, & Lāma, 2020).
Lack of motivation	Problems with motivation and productivity levels (Naidoo & Cartwright, 2020, Lāma, & Lāma, 2020). Lagging behind other students, delaying, there are late submission of papers, making it difficult to obtain credit points accordingly (De Boer, 2021).
Cognitive difficulties	Students inability to concentrate, to get involved (Said-Hung et al., 2020, Bhagat & Kim, 2020) due to caring for family and children, cooking (Said-Hung et al., 2020, Martinsone et al., 2020), study process destruction by family members and even by pets (Adedoyin & Soykan, 2020).
Social-emotional difficulties	Limited communication between students and lecturers (De Boer, 2021), lack of contact with lecturers, not being able to ask questions, lack of peer learning opportunities (Buckley et al., 2021), hard “to read” the lecturers and other students emotions, lack of “human contact” (Lāma, & Lāma, 2020). Problems with self-management and self-regulation – time management, planning, goal setting (Naidoo & Cartwright, 2020, Lāma, & Lāma, 2020). Disrupted daily routine that previously created a certain structure and security, providing predictability (Naidoo & Cartwright, 2020).

At the first COVID-19 wave university lecturers, unable rapidly to adapt to remote learning, imposed much additional independent work on students, which required much more time than face-to-face studies. In the second COVID-19 wave, with the transition to online simultaneous lectures and seminars, this theme no longer appeared.

In a current study, several statements were found to be very positive about remote learning, thus students considered remote learning even

beneficial. Ramlo (2021) calls those students Loners. Loners see remote learning and online classes as convenient and as making their lives easier. This also refers to a study done by Suleri (2021) in the Dutch academic universities where students believe that online learning should be maintained even after social isolation will end, as there are many benefits of it.

Based on the current research the main support system for students to overcome the difficulties during the remote learning in the COVID-19 situation were regular lectures, seminars, qualitative, well-organized digital study process. Digitization of the study process means – synchronic online lectures and seminars, remote exams in the form of tests in front of the computer, re-planned practical tasks (De Boer, 2021), student active involvement in the seminars and lectures (Händel et al., 2021), which helped students to continue with learning successfully. The social support from peers and lecturers was another support system. By promoting communication in the group to feel the unity and cohesion of the group, working in the groups, was possible not only to ensure the achievement of study results but also to provide support to each other – to reduce tension by discussing various situations, stressors (Händel et al., 2021). The professional support for those students who experienced mental health issues was important. However, besides specialists (for example psychologists), there would be a possibility for university staff to be involved professionally in providing support for students (Händel et al., 2021).

This small-scale study has some limitations – the participants of the study were reflecting both on the courses lead by two university teachers. The participants were second-year students with certain experience in higher education.

Conclusions

The pressure for the university, university lecturers, and students to adapt quickly during the COVID-19 to remote learning has meant that several difficulties were experienced by students during the first and second COVID-19 wave, in 2020, spring, and 2020, autumn semester. There were identified 9 themes that were common both in the first and second COVID-19 wave. Two themes were established during the first COVID-19 period but were not present at the second, which can be explained by adjustments there were made both by students and lecturers between first and second remote learning period. The new theme emerged in the second COVID-19 period, which was related to health issues and the spread of the COVID-19 in Latvia. The majority of difficulties in the current study were similar to those experienced by students in other higher education

institutions, programs, and countries elsewhere, which suggests the global impact of the crisis on students and higher education. However, three themes were new in the current research: physical difficulties, insufficient learning skills in front of the computer, difficulties to apply professional knowledge and skills in pedagogical praxis. The last two could be specific for the students, future teachers.

As it was suggested by research, it is important to deliver a high-quality study process in the remote learning situation to students, it helped students to keep up with their studies and encourages participation. Social and professional support was perceived as important by students to overcome the difficulties caused both by COVID-19 and remote learning.

The shift to remote learning for some students was beneficial, which can suggest that remote learning in higher education might remain in the future. Given the impact of COVID-19 on second-year students and the possibility of remote learning being the new reality in the university, some issues need to be addressed, particularly about physical difficulties students experience during long online lecture hours, providing students with social, professional support concerning mental health issues, technical support, and availability of resources would be essential. In the context of future teacher's education, it would be important to perform further studies, to find out the possibilities to acquire the necessary skills for future teachers to perform face-to-face learning while learning in the remote learning process. It would be important to continue research to monitor the further developments of the situation to make necessary adjustments in the study process.

Acknowledgement

The paper was developed during Erasmus+ Project "MyHub – a one-stop-shop on inclusion practices, tools, resources and methods for the pedagogical staff at formal and non-formal educational institutions" project No 604454-EPP-1-2018-1-LV-EPPKA3-IPI-SOC-IN.

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