

Chapter 3

Digital Well-Being and Satisfaction of University Students with Online Education



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1 Introduction

Digital technologies are becoming more and more involved in our everyday lives. With digital requirements at the workplace, educational institutions have to adapt their curricula and implement the teaching of skills that were not even known just a few years ago. Digital literacy is a must-know for a young graduate that is looking for a job in the modern world. Advantages come together with several disadvantages in terms of omnipresent digital technology.

Even before the pandemic, the online study started to increase in popularity, directly or indirectly. The emergence of the pandemic only strengthened the position of digital technologies in online education. The use of such new digital technologies has raised many questions in relation to the impact of computer technology, software, and technological advancements. Student satisfaction with online education through digital technologies depends on the instructor, course design, ICT orientation, conscientiousness, open-mindedness, and overall agreeableness [1].

The influence on student satisfaction can be also made by external variables. One of these variables is why people generally adopt or reject the use of certain technology. To better illustrate this decision process of individuals, a proposed technology acceptance model (TAM) was developed to explain this phenomenon [2]. This model is used to evaluate whether an information system will be adopted or rejected by the users. The use of IT in teaching is upheld by the ability to encourage innovation and its ease of use. Through IT operations, it is possible to create new

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learning spaces, facilitate the transformation of teaching activities, and provide new learning opportunities [3, 4]. According to the technology acceptance model (TAM), the learning outcomes of students are influenced by the effectiveness of the used technology [5]. Educators have a crucial position in the education process and as well in the use of modern digital technologies for education.

However, the implementation of new technologies in the education is a gradual process and takes time. Some countries progress faster than others, but all had to promptly adapt to the unprecedented situation created by the pandemic COVID-19, which promoted the vast use of online platforms. Many education institutions had no other option than to employ new concepts in their teaching to ensure continuous education even in the time of lockdown. The pandemic forced educational institutions to move toward increased learning of digital literacy not only among their students but also employees-educators. Suddenly, there was a new need for skills that were not a priority before and had to be mastered in a short time often by self-study.

The development of digitalization in education is on the rise in the form of various e-learning programs and the use of artificial intelligence or virtual reality. Some universities have been providing online courses that are accessible from home, work, or the university library. Such vast options also promote the internationalization of education and its accessibility as it is possible to connect to such course from anywhere in the world. The use of virtual reality may help in the practical training for various professions, such as pilots, by making the experience more realistic.

While preparing a course that is to be taught through online tools, attention should be certainly paid to the course design, which has an influence on student satisfaction. There are several parts to the design of an e-learning course, which include the structure, the interface, testing and evaluation methods, and a forum for lecturers and learners to exchange ideas [6]. Many e-learning courses contain chapters of learning materials that can be used as additional materials that will help students gain a deeper understanding of the subject matter [7].

A study performed in 2021 [8] subjected around 400 students to an interview process with a goal to evaluate their online learning outcomes during the COVID-19 pandemic. According to the findings, it was revealed that the following factors have an impact on the students' outcomes in descending order are learner characteristics, perceived utility, course content, course design, convenience of use, and faculty capacity.

In order to assess the satisfaction of university students with online teaching, this article focuses on the concept of digital well-being and its position in the education process. It presents a study addressing the satisfaction of students of the Faculty of Aeronautics at the Technical University of Košice with the progression in teaching procedures during the pandemic. It compares the results from an earlier study with the present study and tracks whether there is a shift to greater satisfaction in terms of the use of online platforms. Analysis of the questionnaires permits the authors to provide recommendations and suggestions for possible improvements that can be made in terms of teaching through online platforms.

2 Digital Well-Being

The progressively advancing technology opens up the issue of the digital well-being of humans, which is understood as living a life that is good for an individual even with the influence of digital technologies in an informational society [9]. The perception of well-being can be viewed as subjective, and it generally focuses on three aspects of a person's life: relationships, work, and health. In terms of digital well-being, the focus is centered on how digital technologies influence the three abovementioned aspects [10]. Nowadays, the well-being of a human is linked to the digital environment with which they come into contact. The questions about the influence of digital technology on the well-being of people became even more pressing with the emergence of the pandemic of COVID-19.

Generally, the presence of technology should improve the quality of life of people. There are numerous benefits that modern technology brings in the form of higher productivity or reduced social inequality as more people have access to healthcare or various information [11]. However, positive impacts are opposed to concerns about the mental health of individuals [12], which may be attributed to the excessive use of technologies or the fear of continuing automation in the labor market [13]. Up-to-day education has to reflect the needs of the workplace which requires a new set of skills that were not present before in the form of digital literacy. Therefore, it is inevitable for students to apprehend these skills at their earliest convenience as employees are required to have these skills and continuously adapt to the mastery of similar ones [14].

One of the possibilities of how to cope with the overpresence of digital technology in our lives is to temporarily disconnect from digital media; even though the effectiveness of such disconnect remains uncertain, further research may address the effects of self-determined media habits [10, 15]. However, in certain situations, various duties from work or school may forbid us from disconnecting. Negative impacts of digital use may cause depression, Internet or smartphone addiction, and social comparison. Conscious use of digital technologies for accessing quality information, communication, or entertainment assumes positive effects on individuals' lives.

While digital technology is becoming omnipresent and, in many cases, unavoidable, it is not accessible to the whole population for several reasons. A successful operation of digital technology requires a certain level of digital literacy which may pose problems for example, for elderly people or the ones who are not as skilled in the use of digital technologies. Further, the purchase price of digital technologies is still quite high which influences the low-income population that is not able to keep up with purchasing specific devices [16]. These issues became more apparent during the pandemic of COVID-19 in which special attention was paid to social distancing and thus many basic aspects of life had to be performed without personal contact and through digital technologies.

The emergence of the pandemic was closely related to the integration of digital technologies into daily routines at a rapid rate. Individuals and society as a whole turned to digital technologies for shopping, seeking medical attention, socializing,

attending school, or working. In just a few weeks, society changed its way of behaving, and it is probable that even after the end of the pandemic, the behavior will not go entirely to the way it was previously. The pandemic gave a new dimension to the digitalization process; it also augmented the urgency to address and care for our digital well-being [17]. Nowadays, it is not only about the fact whether an individual has an Internet connection and a device that can connect to it, but it is mostly about how stable and reliable those devices and the Internet connection itself are, as the requirements for videoconferencing, which was a very often used during the pandemic, are much higher than the requirements for simple Internet browsing.

The issue of digital well-being during the COVID-19 pandemic was addressed by the Center for Humane Technology which presented guidelines in the form of rules to mitigate the risks coming from managing many of the aspects of life online [18]. By adopting these rules [17], concluded that there are several strategies to cope with digital overwhelm, but to be effective, these strategies are to be implemented collectively. Strategies include limiting our contact with digital technology by preparing a time management plan, having a skeptical attitude to online products, and adopting a mindful approach to determine how digital technologies affect the well-being of an individual.

3 Education During the Pandemic

During the pandemic, the possibilities for education were severely limited. Schools or universities without previous entirely online teaching systems were trying to cope with the situation of closed gates at their institutions the best way they were able to. Some educational institutions had some form of online communication with students had already established, for example, in the form of school emails. However, for some other institutions mostly dedicated to the education of younger students, it was even harder to transfer to the system of online education.

The transformation to online education due to the pandemic deepened the digital divide that was already present. In reaction to the closing of educational institutions, the educational process continued via online means, which made vulnerable students even more disadvantaged. The response to the pandemic depended on the preparedness of the educational systems of each country. Some countries' education systems had already embedded technology and the Internet so they were able to provide adequate working conditions for teachers; however, the nature of the response was likely to show the inequalities among students and other weaknesses in the education system [19]. According to a study [20] in the United States, students who had issues with the technical maintenance of their devices used for the online education process or had unstable Internet had more trouble with keeping up with the deadlines, assigned work, or following online classes. This study revealed that in order to attain success in their studies, students need to have a good high-speed Internet connection and a functional digital device and also a strong human connection with the instructor of the course.

The pandemic COVID-19 caught educational institutions unprepared as in general, the form of online teaching has not been used at universities before, and even if it was, it certainly has not been used to such an extent as it had to be during the lockdown. The first closing of schools and universities in Slovakia was on 12 March 2020 [21], and in the upcoming months, the method of teaching depended on the actual situation and restrictions posed by the government. After the first shock which everyone experienced, the Student Council for Higher Education provided some recommendations [22], together with the European Union [23] on how to maintain the quality of education as high as possible even in a world intertwined with the pandemic. Despite the recommendations, online teaching has deprived students of opportunities to network and socialize with classmates and teachers, which severely affected their psychological well-being [24].

In the spring of 2020, the first closure of universities was believed to be short and temporary in terms of a few weeks. This belief was reflected in the attitudes of the institutions and educators who did not immediately receive recommendations for online teaching. A national study was concluded in March 2020 to address the issues of online learning at universities and the methods that were used by educators. The report from the Student Council for Higher Education highlighted that universities have to enable students to finish the current summer semester by moving the practical sections into the following semester of the next academic year [22]. However, educational institutions were closed due to the pandemic even in the following winter semester which resulted in replacing some elements of practical work with videos, which unfortunately cannot be considered a sufficient substitute for learning skills through direct experience [25]. The study further focused on the methods used for online teaching. The prevailing methods were of passive nature, in which the student is not in direct interaction with the educator such as studying recommended literature, sharing of the presentation created by the educator, writing essays, and working with e-learning materials. The report recommends higher integration of interactive methods in the forms of videoconferences or at least presentations with audio commentary of the educator. A study revealed that only 37% of students are sufficiently informed in order to successfully manage online learning. In addition to unstable and sometimes missing communication, excessive workload and the use of different digital tools by individual educators constitute significant issues for the students. Most of the students were not satisfied with online teaching in their study program, and at the same time, majority did not agree with the statement that online learning fully replaces face-to-face forms of teaching [22].

Since this study featured only approximately 12% of students from the Technical University of Košice, this institution decided to perform its own study aiming at determining the actual state of online teaching at this university. According to a study published in June 2020 at the Technical University of Košice [26], the majority of methods used in online teaching at that time were of passive nature. The ratio of the most common methods used was comparable to the ones from the previous national study, which featured several Slovak universities. Students in their responses stated that many educators make little or no use of any interactive teaching method. In addition to the above, they also mentioned other problems such as the

absence of communication, long time intervals in e-mail communication, absence of assessment of submitted assignments, a large number of essays due in a short time interval, and difficulties in gathering all necessary information as each educator updates information in a different place.

The study done by the Technical Universities focused on all faculties including the Faculty of Aeronautics. The present study addresses only the Faculty of Aeronautics as it presented only 4,9% of all respondents in the previous study. The aim is to observe and compare the methods of teaching at this particular faculty approximately a year and a half after the two studies mentioned above. After such time, educators had more time to adapt to the requirement of online teaching and to integrate the various recommendations.

4 Online Teaching Platforms Used at the Faculty of Aeronautics

The unexpected pandemic of COVID-19 created an unprecedented situation that revealed the lack of preparedness in terms of digital equipment necessary for online teaching. The beginning of online teaching was missing guidelines and technological preparedness of educational institutions, which the educators had to promptly cope with. Firstly, they employed various passive forms of online teaching while recommendations state that a more interactive approach should be used. One of the interactive forms of online teaching is done through the use of online platforms that provide support for videoconferences, messaging, and other forms of sharing information. There are various types of platforms each offering certain advantages. Our study focused on the use of two online platforms that are used at the Faculty of Aeronautics, which are Webex Meetings and MS Teams. We are going to compare these two platforms while also mentioning Webex Training, which carries some additional features missing in Webex Meetings. These platforms provide the essential features (camera, microphone, sharing of screen, whiteboard) that an educator and student need in order to hold and actively participate in a videoconference.

4.1 *Webex Meetings*

Webex Meetings is an online platform developed by Cisco [27, 28] through which it is possible to hold a videoconference with all features which are indispensable (camera, microphone, screen sharing). Webex Meetings provides two ways how to manage videoconferences with students. The first option which requires less time in the first stage of setting up the videoconference is through the personal link of the educator. The other option is that the teacher can create a space (or team) for each class with the students who are supposed to attend that class. Both these options have their advantages.

Upon registration, each account is assigned a unique link, which provides access to a virtual space called a personal room. The educator can share the link to their personal room with their students, who will connect to this link in the time of the class (determined by the university schedule). When connecting through the link of the personal room, there is no need to create spaces, which may seem easier for the teacher in the short run. However, it is not possible to share content such as documents or other files through the personal room. Such sharing of files can be then done through email or another platform. This procedure may be harder to keep track of as students cannot access all information (meaning online classes and documents for classes) in one place. The option of a chat can be a useful feature in times of technological issues, e.g., not properly working microphone. However, the chat that is accessible to the students during the videoconference or files shared during the call is not accessible after the call ends (unless it was saved during the call) [27, 28].

On the other hand, creating spaces for specific classes will take more time at the beginning of the academic year, as adding all students can be time-consuming. However, when sharing documents with students through the created spaces, they have access to it all the time and they can be all found in one place. With the use of spaces, there is no need to send emails with the link to the personal room or additional information about the class as all can be done through the space. The advantage of spaces when compared to a personal room is that when the videoconference is made through the space, files, and chat are accessible at all times [27, 28].

Webex Meetings, whether used in form of spaces or personal rooms, provides a network of students and educators. It is possible to write messages to specific people without the use of an email or schedule a video call with them directly. Such a feature can be useful in group projects where students can communicate in groups or pairs without the use of additional platforms, such as email, Facebook, or WhatsApp. A downside of Webex Meetings is that there is no option to create tests or assignments [27, 28], which is a well-needed feature for educators.

4.2 Webex Training

Even though the feature of testing is not possible in Webex Meeting, it is accessible through Webex Training. To access to the Webex Training is provided from the browser, not from the desktop app Webex. This may seem slightly complicated as not all functions are found at the same place and it may make the creation of tests less accessible. After signing into Webex in the browser, in the menu, we can see the button for Webex Training. After clicking on this a new window will open with Webex Training, which has a different design when compared to the main Webex app, this may seem confusing for some people as they were already accustomed to the design in the app [29, 30].

It is possible to create tests through Test Library. This platform provides several types of questions (essay, multiple choice, fill in the blanks, etc.), and the creation of the test is quite intuitive. Unfortunately, it is not possible to assign the test during a regular videoconference done through a personal room or space. In order to assign the test, there is a need to schedule the meeting through Webex Training. Creating a meeting through Webex Training may seem a little bit complicated; in order to start it, it is necessary to install an extension to the browser. Based on the type of question, e.g., multiple choice, it is possible for the platform to correct the answers itself after setting the correct answers to the questions before the start of the test. The answers to the questions in the form of essays have to be checked by the educator. To evaluate the tests, it is necessary to go back to the Webex Meeting app and find the meeting during which the test was written. Since it is not possible to find all information on one platform but there is the need to switch from one to the other in the browser, it might seem a bit complicated and confusing for people with lower digital literacy [29, 30].

4.3 *MS Teams*

MS Teams has a special option for education purposes, which gives teachers the possibility to create teams for each class, where they can add all students that should attend the class, similar to the spaces that can be created in Webex Meetings. This procedure of creating teams may seem to require a lot of time and effort, but in the long run, it can be very advantageous. It provides the possibility to share files and to write in the chat, before, during, and after the call, while all this information is always accessible. MS Teams permits the users to chat with specific people and call them directly; however, it does not have the feature of a personal room. This means that if the teacher wants to hold a videoconference with their students, they have to create teams based on the classes.

One of the biggest advantages of MS Teams in the education edition is the option of assignments and tests. It is possible to create assignments (e.g., homework), and it is very easy to keep track of which students have already turned in their assignments, which did not, and which turned them in after the deadline. The educator can check the assignments, give written evaluations, or ask the student to add or correct certain parts of their work. After students receive their evaluation, they can correct their work and turn it in again. This feature permits students to get feedback for their work which is crucial in online learning. It also allows the educator to stay on top of the assignments and clearly see whether there is a student who forgot to turn in their work. Without this feature, it is possible to send an assignment to the teacher via email, which may get lost or overlooked among lots of emails from other students.

The option of quiz or test is very intuitive, even though there are fewer types of questions available as in Webex Training; it is in a more familiar environment since the quizzes are done through Microsoft Forms (comparable to Google Forms). As well as in Webex Training, it is possible to pre-set a correct answer in, e.g., multiple

choice type of questions. This allows the platform to correct the quiz automatically, which saves time for the educator and students to receive earlier their evaluation. Naturally, the open-ended questions have to be checked by the educator. If the test combines more types of questions, the platform automatically evaluates some of the questions, and the others are left to be checked by the educator. To grade the test, the educator has to go to the individual team to which the quiz was assigned. In MS Teams, it is possible to access many features in one place, from the desktop app; however, it does not provide the option for personal space [31].

4.4 Comparison of Online Teaching Platforms

In Table 3.1, we can see a comparative analysis of the three platforms and the ways of holding a videoconference they provide. In the left column, different features of these platforms were compared. The feature of a personal room is viewed as very useful, as it is a universal link that can be used repeatedly with numerous participants; therefore, it may seem like a disadvantage that MS Teams and Webex Training do not provide such a function. Creating specific groups of students that attend the same class each week seems practical from the long-term perspective, this feature is accessible on all platforms, but it is not used when conducting videoconferences through the personal room. All ways of conducting videoconferences allow for a chat during the call, and Webex Meetings through spaces and MS Teams provide the access to the history of the chat at all times. This feature can be considered significant for students who can access the information and files that were shared during the class later, for example, when they are going to study for the test.

Storage of documents or other shared files such as presentations or notes seems very useful to the students. Webex Personal link does not accommodate such a function, meaning that the files can be sent during the call into the chat, which does

Table 3.1 Comparative analysis of online teaching platforms [27–31]

	Webex Meetings (personal room)	Webex Meetings (space)	Webex Training	MS Teams
Personal room	✓	✗	✗	✗
Creating teams	✗	✓	✗	✓
Chat during call	✓	✓	✓	✓
Chat before and after the call	✗	✓	✗	✓
Storage of documents and files	✗	✓	✗	✓
Assignments	✗	✗	✗	✓
Tests/quizzes	✗	✗	✓	✓

not have to be accessible after the end of the call or through email or another platform which makes managing classes slightly complicated. Webex Meetings with spaces and MS Teams provide the possibility of always accessible sharing of files.

The feature of assignments is accessible only through MS Teams in the educational version of the platform. It allows the educator to give feedback to students and to keep track of the turned in assignments. Testing in online teaching is crucial; however, it is provided only by two platforms, MS Teams and Webex Training. The advantage of Webex Training is the possibility to form tests, but at the same time, it does not have the functionalities which are featured by spaces in Webex Meetings or teams in MS Teams; however, it gives the possibility to create recurring training sessions.

For educational purposes, MS Teams might be viewed as the best option thanks to the test, assignment, and grade system, whereas Webex Meetings might seem as a great tool for bigger conferences or meetings, which could be done through Webex Meetings' Personal room. When the host does not know the specific number and e-mail addresses of participants, it would be very advantageous to provide the participants only with the link to the host's personal room. When teaching a class with the same set of students every week in Webex Meetings, it would be more convenient to create a space with them, while conducting of test could be done either by Webex Training or on some other platform such as Moodle.

5 Methodology

The aim of the performed survey was to access the situation of online teaching at the Faculty of Aeronautics and to find out to which extent are the students satisfied with such teaching and compare the results with the study conducted in March 2020 by the Technical University of Košice. We focused on the platforms which are used for online teaching since several platforms are used simultaneously. The goal is to determine whether the students are content with the platform that is used the most in their classes and whether they would prefer if all their classes were done through the same platform. Additionally, the results from the present study are compared to the findings gathered in 2020 by the Technical University of Košice. The authors believe that improvement is to be observed regarding the accessibility of information to the students and their satisfaction with online teaching. It is expected that there will be also an increase in the percentage of students who view online teaching as fully equivalent to face-to-face teaching since the methods of teaching improved over time and are better suited for adequate learning.

The survey was targeted at students at the Faculty of Aeronautics that were participating in online teaching in the winter semester of the academic year 2021/2022. The reason was to determine to which extent are these university students satisfied with their online classes, to see how many online platforms are being used in their study program and to give opportunity for them to express their ideas for improvement.

The questionnaire was administered online through Google Forms. It was distributed to the students through email addresses. The online questionnaire was composed of 18 questions, and it was estimated that it would take around 10 minutes to fill it out. The questionnaire features various types of questions such as multiple choice, matrix, and closed and open-ended questions. The questionnaire was composed of three parts, the first was dedicated to the gathering of demographical information, the second to the type of online teaching and the use of the most common platform, and the last section was addressing the satisfaction of students with the type of online teaching. At the end of the questionnaire, there was a space for their ideas and recommendations for improvement. The gathered data from the online questionnaires were evaluated by the means of descriptive statistics.

We received responses from 53 students during the period from 30 November to 2 December 2021. The survey was anonymous in order to keep the answers as sincere as possible. Of the total 53 students who participated in the survey, 17% of students were female and 83% were male. Most of the students were in their first year of study (55%), while the least represented was the fourth year of study with only 4%.

6 Results and Discussion

According to Fig. 3.1., we can see that 83% of students responded that videoconferencing is the most common method of online teaching, and it is used in more than 75% of classes. This is a considerable increase in comparison to the 2020 survey done by the Technical University of Košice, where the option that videoconferences are used in more than 75% of classes was chosen only by 7% of students. According to our study, the types of online teaching shifted from passive methods to active methods that are more interactive and feature interaction between the educator and the students.

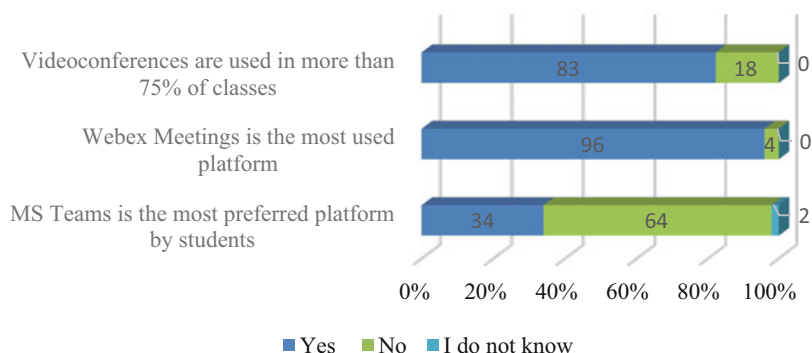


Fig. 3.1 Types of online teaching platforms

About the use of specific platforms, the results showed that the most used platform was Webex Meetings. The videoconferences conducted through a link to the personal room of the educator are used 88% of the time and videoconferences through spaces only in 9%. Videoconferences through personal room may save time for the educator, but at the same time, some students mentioned that this method is not very convenient for them as they have to search for the link in the emails. Only one student responded that Webex Training or MS Teams is the most common platform for videoconferences in their study program. Even though MS Teams was marked as the most used platform only by 2% of the students, it is the preferred platform for 34% of the students which showed a quite remarkable disproportion. Among the advantages of this platform, students mentioned that it operates more reliably, is multifunctional, is easy to navigate between the shared files and the ongoing videoconference, and provides notifications about the upcoming meeting and there is no need to search for the link for the meeting. The advantages of Webex Meetings through personal room were that it is easy to use and fast and it is the platform that is used for most of their classes. Features that were appreciated by students and are accessible on both platforms are the function of a whiteboard, access through browser and smartphone, and scheduling of meetings in the calendar. Some students mentioned that their preference was based on which platform they used as the first one; some students were first introduced to MS Teams and some to Webex Meetings either at their high school or university.

Figure 3.2 demonstrates inconsistency in the use of online teaching platforms by educators; it reveals that online education is performed on two and more platforms in 77% of cases, while only 23% of students have all their classes on one platform, which is Webex Meetings. Even though most of the students have to operate on more than one platform in attending their classes, the majority of them (42%) do not seem to mind this inconsistency, which may be caused by insufficient guidelines from the university.

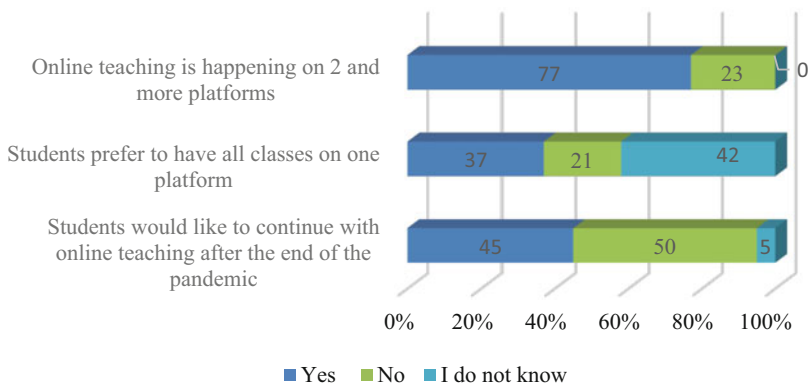


Fig. 3.2 Students' attitude to online teaching platforms

However, 37% would prefer to have classes on one platform and 21% of students do not want to have all their classes on just one platform. For students, it may be impractical to have classes on more than one platform, but on the other hand, this way each educator can choose their preferred method of teaching which they find the most convenient and with which they can work the best.

Considering the attitude of students toward keeping the online teaching methods employed even after the end of the pandemic was ambiguous, approximately half of the respondents (45%) would like to continue with some form of online learning and approximately half (50%) would not. Only 5% of students did not incline toward either possibility. According to these results, we can conclude that some aspects of online teaching could be preserved in the future for example in the case of external study. During this type of studying, students usually have a stable job, and they are studying along with going to work. In such cases, it could be very beneficial for these working students to have to opportunity to study online. In the open-ended question, some students in favor of face-to-face teaching stated that practical lessons cannot be sufficiently replaced by online teaching. However, with the current developments in digital technology, we may approach the level of sufficient online practical lessons that would comply with all students' needs.

In order to assess whether students at the Faculty of Aeronautics were more satisfied with online teaching in 2021 than students from all faculties in 2020, we have to compare Figs. 3.3 and 3.4. Figure 3.3 features the 2020 survey done by Technical University of Košice, and the Fig. 3.4 demonstrates the results from the current survey. Considering the first part of the figures on the left regarding the overall provision of information by the university is better, now 34% agree that they have enough information compared to only 18% in 2020. Less students marked the middle option of neither agree nor disagree meaning that they could have more time to evaluate all accessible options of gaining information.

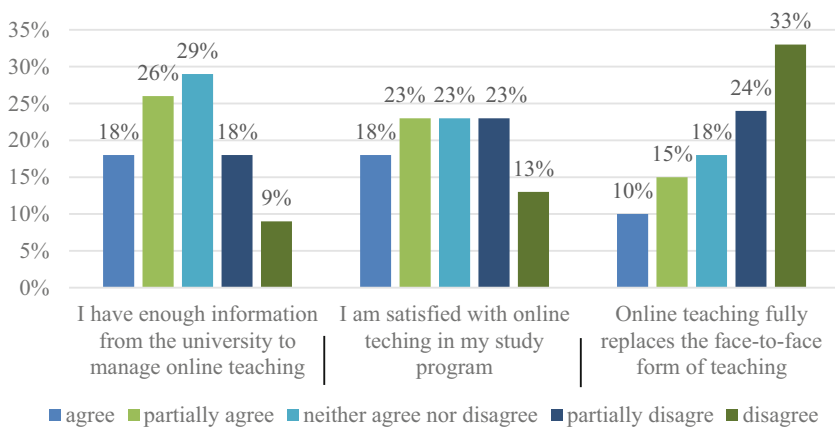


Fig. 3.3 Assessment of online teaching by students in 2020 at the Technical University of Košice

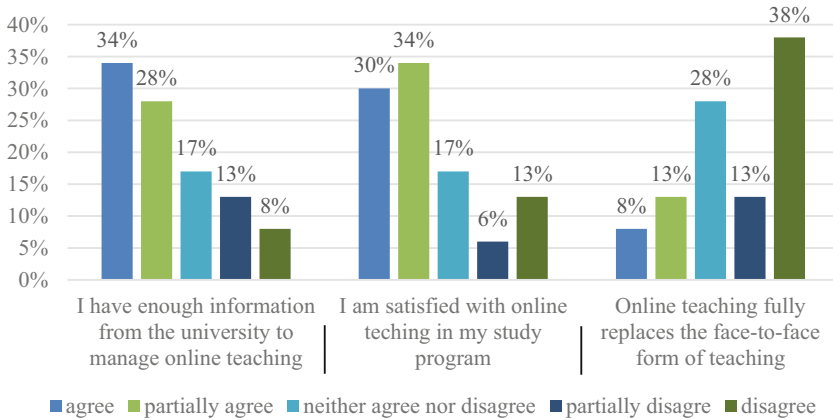


Fig. 3.4 Assessment of online teaching by students in 2021 at the Faculty of Aeronautics

Looking on the center part of the figures related to the satisfaction of the students with online teaching, the numbers are also better. In the present survey, 30% of students agree and 34% partially agree that they are satisfied with the way how online teaching is performed in their study program as opposed to the 2020 survey where only 18% of students agreed and 23% partially agreed with the statement. We can also observe a decline in the percentage of students who partially disagree with the statement while the percentage of dissatisfied students is kept intact. It is possible to attribute this improvement to the extended use of interactive online teaching methods such as videoconferences. Over time, the communication between students and educators could have also improved; however, students in the current survey mentioned that the communication should improve even more.

Lastly, the right part of the figures shows whether students think that face-to-face teaching is replaceable by online teaching; here, the answers are similar. However, Fig. 3.4 demonstrates that there is a higher percentage of students who disagree with the statements, probably because after spending almost year and a half using mostly online teaching, they can better understand which parts of face-to-face teaching are missing in online teaching. There is also an increase in the percentage expressing the option of neither agree nor disagree which can signify that some of the issues occurring in online teaching before were limited with further use or on the hand some other issues rose that forbid them from deciding. To conclude, the majority of the students would not want to continue with online teaching after the end of the COVID-19 pandemic.

7 Conclusion

Nowadays, digital technology is surrounding us everywhere even in the educational process. The modern developments in technology are about to change education as we knew it for decades; even now, the curricula have to adapt and copy the requirements for digital literacy that are posed by the job market. The balance between living life with and without digital technology, known as digital well-being, is a concept that is gaining importance. With the arrival of the pandemic COVID-19, the digital well-being of many people was threatened as the restrictions promoted social distancing causing many institutions including educational institutions to close their gates and switched to communication online.

The present study shows the views of students of the Faculty of Aeronautics on the quality of online teaching in their study program. For greater reliability, it would be beneficial to conclude such a study on a greater sample and possibly with the same students that gave their responses in the study from 2020. This study concludes that students at the Faculty of Aeronautics were more satisfied with online teaching in 2021 than students of the Technical University of Košice had been in 2020.

This could be promoted by the increased use of interactive methods of online teaching such as videoconferences, which are the most used in almost 90% of classes. The platforms used for such way of teaching were compared, and it seems that MS Teams is more adapted to the needs of online teaching, due to the assignment, test, and grading system it provides as opposed to Webex Meetings, which is more used at the Faculty of Aeronautics. Most students and educators prefer this platform; however, we would recommend paying more attention to the creation of spaces in Webex Meetings as it provides the benefits which can be found in MS Teams. The majority of the students do not agree that online teaching can fully replace face-to-face classes; however, some forms of online practices could be used further even after the end of the pandemic. Further studies could focus on progressive ways of maintaining the digital well-being of students and educators during the online teaching process, which will likely become one of the offered methods of studying at universities.

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