UNIVERSITY STUDENTS' PERSPECTIVES ON ONLINE LEARNING VIA THE MICROSOFT TEAMS PLATFORM

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ABSTRACT

Aim. The study aimed to determine students' perspectives on collaboration, the study process and motivation while using the Microsoft Teams (MS Teams) platform for online learning.

Methods. The study involved 124 (*N* = 124) students of 1st-level higher professional education, bachelor's and master's study programmes. The study addressed three research questions: What are students' perspectives on collaboration while learning via MS Teams, and whether their opinions depend on age, study level, study form and course? What are students' perspectives on the study process via MS Teams, and whether their views are influenced by age, study level, study form and course? What are the students' motivations to study on MS Teams, and does it depend on age, study level, study form and course?

Results. Students' perspectives on collaboration are not related to study form, study level, or the course but are connected with the age of the students. The majority of students evaluate the study process on MS Teams positively. Their views are not related to study form, the course or the age but are connected with the level of study. The students' motivation to study on MS Teams is increased by reducing time consumption, the convenience of learning in their environment and the ability to complete tasks.

Conclusion. With increasing age, student satisfaction with mutual collaboration on MS Teams declines. Young students and those who study in the lower-level programme find learning online via MS Teams more exciting than older students and those who study in the higher-level programme.

Keywords: Online learning, student's perspective, Microsoft Teams platform, collaboration, study process, motivation, higher education.

Introduction

Higher education has experienced more changes than we could have imagined in the last three years. These changes were related to the



COVID-19 pandemic as the study process in higher education took place remotely due to the restrictions and self-isolation. Higher education institutions were looking for solutions to provide students with a continuous study process. One of the options was an online learning platform. In Latvia, similar to other countries (Almahasees et al., 2021; Vijayan, 2021; Wea & Kuki, 2020), the most common online platforms were initially Zoom and Microsoft Teams (MS Teams). The COVID-19 pandemic forced higher education institutions to improve their technical infrastructure, and at the same time, students and teachers to foster their digital competence (Zarei & Mohammadi, 2022). These measures had to be implemented because the provision of digital technologies and the improvement of digital competence in these circumstances were the only ways to create a modern educational environment and a necessity to ensure the study process in general.

At the moment, when the COVID-19 pandemic no longer determines that the study process must take place remotely, online learning is still partially preserved in higher education. One of the most common learning platforms used for learning online is MS Teams, as it offers several unique features (creating channels, organising group work, chatting, sharing learning materials, et cetera) that allow the lecturer to create a diverse online learning environment for the students. Janice Poston and colleagues believe that MS Teams is an appropriate tool for virtual meetings (Poston et al., 2020). MS Teams is an effective e-learning platform (Almodaires et al., 2021; Khidir et al., 2022), and students' feedback about it is very positive (Martin & Tapp, 2019). Studies have shown that MS Teams optimally supports the learning environment of students (Rojabi, 2020), the students have a good perception of using MS Teams (Wea & Kuki, 2020), and they manage this platform without effort (Nawi & Hamidaton, 2022). However, it requires a faster internet connection to work well (Laquindanum, 2022), so this is often one of the more common problems affecting students.

The implementation of digital technologies had an enormous impact on the education system during the COVID-19 pandemic. They not only ensured the transfer of knowledge but also acted as a co-creator, a monitor and an evaluator of the information (Haleem et al., 2022). Online education has become technologically, economically and functionally possible as information and communication technologies continue to develop. Online education has been recognised as a form of teaching and learning (Alam et al., 2022). In higher education, the combinations of online and face-to-face classes have become an integral part of education.

The process of teaching and learning remotely is a common topic for many researchers in the context of the COVID-19 pandemic. For example, a study conducted by Ghada Refaat El Said (2021) compared the grades obtained by the students who studied in the same level course face-to-face before the COVID-19 pandemic with those obtained when they studied online and concluded that there were no statistically significant differences between the grades (El Said, 2021). At the same time, the research found that

online education has lower overall effectiveness than face-to-face learning (Tartavulea et al., 2020) and is a great challenge for students and lecturers (Hamdan & Amorri, 2022). Online learning is considered less effective than face-to-face because of the lower learning levels, lack of social competencies and fewer opportunities for active student engagement (Baczek et al., 2021). The effectiveness of the study process online has a significant relationship with the technological provision and infrastructure availability (Gautam & Gautam, 2021) because this process is more dependent on technology than on the lecturer (Ritonga et al., 2020).

A successful way towards online learning requires thoughtful teaching methods and an active approach (Bączek et al., 2021). In addition, students must have a high level of self-control to focus on the information and avoid diverting attention from the issue (Sonune et al., 2022). The amount and difficulty degree of the course content should be adapted to the student's academic preparation and online learning behaviour (Bao, 2020). However, despite several problems that arise when studying online, Khaled Hamdan & Abid Amorri acknowledge that online learning allows overcoming the limitations of time and space in the study process (Hamdan & Amorri, 2022), it is beneficial for students because it provides accessibility and comfort (Sujarwanto, et al., 2021).

The experience gained during the global pandemic created a situation where students and lecturers are used to implementing technological solutions and tools. Online learning has entered the higher education system. This study was carried out when students were studying both face-to-face and online, and it was not affected by any external circumstances. It was the choice of the students and lecturers themselves. Therefore, it is worth exploring students' opinions about learning on the MS Teams platform when it is not a mandatory form of study organisation.

The aim of the study was to determine students' perspectives on collaboration, the study process and motivation while using the MS Teams platform for online learning.

METHODS

Participants

The study took place in the period from October 2022 to January 2023 and involved 124 (N = 124) respondents (Table 1).

The majority of the respondents who participated in the study are part-time students in 1st level higher professional education study programmes. Students of all courses included in this study, but most of them studied in the 2nd year. The participants were students of different ages learning on full-time and part-time study forms. Few students were older than 51 years (3.2%), but the majority were under the age of 30 (45.2%) or between the ages of 31-40 (38.7%).

Table 1 *Characteristics of the study participants*

Variables	Values	N(124)	f(%)
Study level	1st level higher professional education	67	54.0%
	study programme		
	Bachelor's study programme	43	34.7%
	Master's study programme	14	11.3%
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Study form	Full-time	16	12.9%
	Part-time	108	87.1%
Years of studies	1. year	19	15.3%
	2. year	68	54.8%
	3. year	7	5.6%
	4. year	30	24.2%
Age	Up to 30 years	56	45.2%
	31-40	48	38.7%
	41-50	16	12.9%
	51 and older	4	3.2%

Source. Own research.

Data collection instrument

The study addressed three research questions:

- RQ-1. What are students' perspectives on collaboration while learning online via MS Teams and whether their opinions depend on age, study level, form of study and course?
- RQ-2. What are students' perspectives on the study process via MS Teams, and whether their views are affected by age, study level, study form and course?
- RQ-3. What is the student's motivation to study online on MS Teams, and does it depend on age, study level, the form of the study and course?

A questionnaire was created in Google Drive for data collection. The questionnaire consisted of four parts. The first part contained general information about the respondent: study level, the form of the study, course and age. The second part included statements that described students' perspectives on collaboration while studying via the MS Teams platform. The third part contained statements that characterised the study process on the MS Teams platform. The fourth part included statements that defined students' motivation to study using the MS Teams platform. The statements in the second, third and fourth parts of the questionnaire were made on a six-

-point Likert scale, as follows, 6 points – *fully agree*, 5 points – *agree*, 4 points – *rather agree*, 3 points – *rather disagree*, 2 points – *disagree*, 1 point – *strongly disagree*. The study created three research scales: collaboration, study process and motivation.

Data collection procedure

In total, 11 groups of students were invited to complete the questionnaire by sending it through the MS Teams platform. Respondents were previously informed about the study purpose and the duration of completing the questionnaire, which was about 15 minutes. Participation in the study was anonymous and voluntary, and any student could refuse to continue answering the questions at any time. The respondents were informed that the data obtained would be processed, interpreted and presented in a summary

All procedures performed in studies were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Data analysis

The statistical Package for Social Sciences (SPSS 22.0) was used for quantitative data analysis. Cronbach's Alpha coefficient were used to assess the internal content consistency of the statements on the research scale: Collaboration, study process and motivation. Furthermore, a One-Sample Kolmogorov-Smirnov test was performed to check the relevance of the data on each scale of the study. It was determined that the data of the scales of collaboration (D(124) = .236, p < 0.05), study process (D(124) = .189, p < 0.05) and motivation (D(124) = .243, p < 0.05) do not correspond to a normal distribution, which means that non-parametric tests were applied for further analysis.

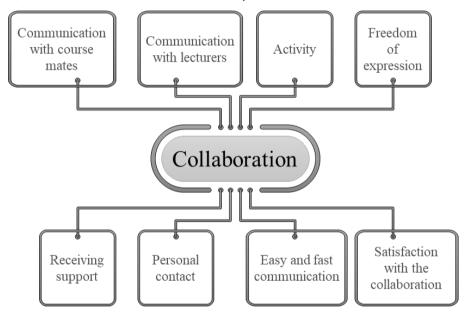
The study also used descriptive statistics. Arithmetic mean (*M*), median (*Mdn*) and Mean Rank were calculated to describe the average value of the feature. In the study, it was essential to determine not only the average indicators of each statement but the dispersion indicators (Standard Deviation (*SD*), Skewness, and Kurtosis) in order to describe the characteristics of the variation of each statement. In addition, a One sample *t*-Test was performed to assess the statistical significance of the differences between the calculated mean values.

The Kruskal-Wallis test was used to determine whether students' views on collaboration, study process and motivation when studying online on the MS Teams platform have statistically significant differences concerning study course, study level and age. Post hoc comparisons were conducted using the Jonckheere-Terpstra test. On the other hand, the Mann-Whitney U test was used to determine whether students' views on collaboration, the study process and motivation when studying online on the MS Teams platform differ statistically significantly in connection with the form of study.

RESEARCH RESULTS

The internal consistency of the collaboration scale is excellent (a = .932). In this research scale, issues related to collaboration were analysed, such as (a) communication with course mates and the lecturer; (b) the opportunity to be active, express yourself freely, receive the necessary support and ensure personal contact; (c) the ability to communicate more easily and quickly; (d) satisfaction with mutual collaboration (Figure 1).

Figure 1 *Questions that describe the research scale of collaboration*



Source: Own research.

Students assess communication with course mates when studying online on the MS Teams platform at a high level. Students believe that they communicate with their course mates easily (M = 5.30, SD = .837, t(124) = 70.522, p = .000). The study determined that there is no statistically significant difference between full-time (Mdn = 6.00) and part-time (Mdn = 6.00) students (U = 704.50, z = -1.304, p = .192). There were no statistically significant differences in the opinions of the students of the 1st level higher professional education study programme (Mean Rank = 65.35), bachelor's study programme (Mean Rank = 63.40) and master's study programme (Mean Rank = 40.64) regarding ease of communication with course mates while studying on the MS Teams platform (H(3) = 5.468, p = .065). Also, the study course in which the students are learning is not decisive for them to

easily communicate with their mates on the MS Teams platform (H(4) = 5.412, p = .144). However, the study found that students who are between the ages of 40 and 50 (Mean Rank = 51.91) and especially those who are over 50 years old (Mean Rank = 20.25) find it much harder to communicate with each other than students who are up to 30 years (Mean Rank = 65.33) or aged between 30 and 40 years (Mean Rank = 66.53). A Kruskal-Wallis Test indicated a significant difference between the four groups (H(4) = 9.562, p = .023). However, the Jonckheere-Terpstra test does not allow claiming that with increasing age, students have more difficulty communicating with each other on the MS Teams platform (TIT = 2098.50, z = -1.733, p = .083).

The study showed that students assess communication with lecturers on the MS Teams platform equally the same (M = 5.04, SD = .882, t(124) = 63.729, p = .000). Students' views do not depend on whether they are full-time (Mdn = 58.66) or part-time (Mdn = 63.07) students (U = 802.50, z = -.488, p = .625). Study level (H(3) = .897, p = .639) and study course (H(4) = 7.561, p = .056) do not determine students' communication opportunities with lecturers while studying online via the MS Teams platform. The study revealed that it was much harder for students over 50 years to communicate with lecturers (Mean Rank = 39.63), but it was easier for students aged 30-40 (Mean Rank = 68.26). However, even in this case, the Jonckheere-Terpstra test does not provide the opportunity to claim that the older students are, the harder it is to communicate with lecturers on the MS Teams platform (TJT = 2134.50, z = -1.503, p = .133).

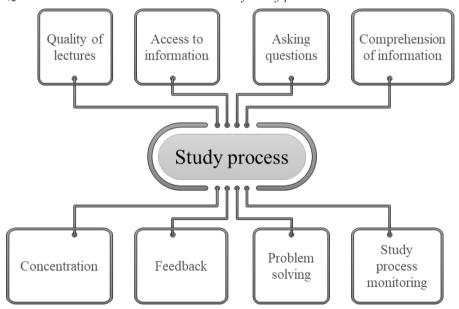
The study determined that whether students study full-time or part--time does not affect their opportunities to be active (U = 819.50, z = -.359, p= .719), express themselves freely (U = 780.50, z = -.661, p = .509) and receive the necessary support (U = 791.50, z = -.573, p = .567) while studying on the MS Teams platform. Also, whether students learning in 1st level professional higher education, bachelor's or master's study programmes does not determine their opportunities actively (H(3) = 1.659, p = .436) and freedom to express (H(3) = 2.385, p = .303). The possibility of receiving the necessary support (H(3) = 1.805, p = .405) and establishing personal contact (H(3) = 1.805, p = .405)2.051, p = .359) is also the same for all students. The study found that it is easier and faster to communicate on the MS Teams for 2nd-year students (Mean Rank = 69.77), but it is more difficult for 3rd-year students (Mean Rank = 43.42). However, the Jonckheere-Terpstra test does not provide the opportunity to claim that the quality of students' communication on the MS Teams platform is related to the study course they are studying (TIT =2091.50, z = -1.220, p = .222).

The study revealed that the age of students does not determine their activity (H(4) = 3.565, p = .312), the opportunity to express themselves freely (H(4) = 4.829, p = .185) and receive the necessary support (H(4) = 3.159, p = .368), however, it determines the students' satisfaction with mutual collaboration (H(4) = 9.287, p = .026). Students under the age of 30 are more satisfied with the collaboration (Mean Rank = 67.46) than those over 50

years (Mean Rank = 33.63). The Jonckheere-Terpstra test makes it possible to claim that with increasing age, students' satisfaction with mutual collaboration on the MS Team platform decreases (TJT = 1969.50, z = -2.343, p = .019).

The internal consistency of the study process scale is excellent (a = .944). This research scale analysed issues related to the study process, such as (a) the quality of the teaching process; (b) the opportunity to ask questions, to receive feedback, to access and use information; (c) the ability to understand information, focus, resolve problems and to monitor the study process (Figure 2).

Figure 2 *Questions that describe the research scale of study process*



Source: Own research.

On this research scale, the students have assessed the quality of the lectures (M = 4.93, SD = 1.201, t(124) = 45.752, p = .000) and the ability to access and use the information at a high level (M = 4.70, SD = 1.072, t(124) = 48.734, p = .000). On the other hand, they rated the possibility to ask questions (M = 4.11, SD = 1.163, t(124) = 39.374, p = .000) and understand the content at a low level (M = 4.23, SD = 1.294, t(124) = 36.411, p = .000). The study determined that there is no statistically significant difference in the opinion of students who study full-time and those who study part-time about the quality of lectures (U = 810.50, z = -.426, p = .670), the ability to access and use information (U = 840.50, z = -.184, p = .854), the opportunity to ask questions (U

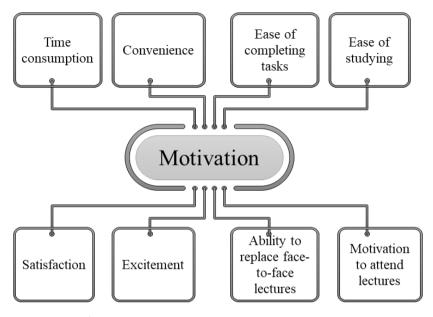
= 750.50, z = -.874, p = .382) and the ability to understand information (U = 756.50, z = -.827, p = .408).

The research showed that the study level significantly determines the students' opinion about the possibility of asking questions (H(3) = 7.145, p = .028) and the ability to understand information (H(3) = 11.292, p = .004). The Jonckheere-Terpstra test revealed that students of the 1st level higher professional education study programme believe that they are more likely to ask questions in the MS Teams (Mean Rank = 70.07) and better understand the information (Mean Rank = 71.71) than students of bachelor's (Mean Rank = 53.37; Mean Rank – 48.82) and master's (Mean Rank = 53.11; Mean Rank = 58.82) study programmes (TJT = 1670.50, z = -2.647, p = .008; TJT = 1625.50, z = -2.858, p = .004).

It is essential that students, when learning online on the MS Teams platform, can concentrate, receive quick feedback and can solve any problems encountered. The majority of students agree that they can focus (M = 4.33, SD = 1.458, t(124) = 33.118, p = .000) and can receive feedback quickly (M = 4.41, SD = 1.294, t(124) = 43.953, p = .000) and solve problems (M = 4.27, SD = 1.398, t(124) = 34.025, p = .000) as good as they study online on the MS Teams platform or face-to-face. The study determined that the ability to concentrate and solve problems is not related either to the course of study (H(4) = 5.441, p = .142; H(4) = .597, p = .897) or to the study level (H(3) = .597)5.953, p = .051; H(3) = 3.037, p = .219) or the age of students (H(4) = .353, p = .219) or the age of students (H(4) = .353, p = .219) or the age of students (H(4) = .353). = .950; H(4) = 4.406, p = .221). However, there are statistically significant differences in the opinions of students of the 1st level higher professional education study programme (Mean Rank = 71.07), bachelor's (Mean Rank = 52.69) and master's study programmes (Mean Rank = 50.32) regarding the possibility of receiving feedback quickly while studying on the MS Teams platform (H(3) = 9.243, p = .010). The Jonckheere-Terpstra test concluded that students of the 1st level higher professional education study programme believe they receive quick feedback when studying online on the MS Tea platform more than students of other study programmes (TIT =1599.50, z = -3.012, p = .003).

The internal consistency of the motivation scale is good (a = .880). This research scale analysed such motivation-related questions as (a) time consumption and convenience of studying in a self-created environment; (b) ease of tasks completion; (c) excitement and satisfaction when studying on the MS Teams platform; (d) ability to fully replace face-to-face lectures and motivation to attend lectures (Figure 3).

Figure 3 *Questions that describe the research scale of motivation*



Source: Own research.

Students admit that they are most motivated to study on the MS Teams platform by less time consumption (M = 5.29, SD = 1.034, t(124) = 56.964, p= .000), the convenience of learning in a self-created environment (M = 5.22, SD = 0501, t(124) = 55.407, p = .000) the ability to perform tasks without effort (M = 5.19, SD = .925, t(124) = 62.489, p = .000). On the other hand, students are less motivated to study on the MS Teams platform because it is not exciting (M = 4.22, SD = 1.366, t(124) = 34.436, p = .000), it cannot fully replace studying face-to-face (M = 4.57, SD = 1.2409, t(124) = 36.126, p = .000) and does not cause satisfaction (M = 4.74, SD = 1.342, t(124) = 39.327, p = .000). The Mann-Whitney *U* test determined that there is no statistically significant difference in the opinions of students who study full-time and those who study part-time about time consumption (U = 728.50, z = -1.140, p = .254), the convenience while studying (U = 740.50, z = -1.017, p = .309), completing the tasks comfortably (U = 656.50, z = -1.668, p = .095), the fact that learning online is more exciting (U = 822.50, z = -.321, p = .748), online learning can fully replace face-to-face learning (U = 776.50, z = -.675, p = .500) and the satisfaction with learning online (U = 800.50, z = -.499, p = .618).

The study found that first (Mean Rank = 69.61), second (Mean Rank = 68.28) and third (Mean Rank = 69.17) year students believe that studying online is exciting, but the fourth year (Mean Rank = 42.37) students do not

have the same opinion (H(4) = 11.827, p = .008). The Jonckheere-Terpstra test indicated that studying online on the MS Teams platform is more exciting to students who just started at the university than the final-year students (TJT = 1753.50, z = -2.841, p = .004).

Students' opinions about satisfaction with online studying on the MS Teams platform (H(4) = 7.869, p = .049) and the possibility that online learning can fully replace face-to-face learning (H(4) = 8.221, p = .042) are statistically significantly related to their age. However, in this case, the Jonckheere-Terpstra test does not allow us to claim that with increasing age, students' opinions about satisfaction with studying on the MS Teams platform (TJT = 2254.50, z = -.531, p = .595) or that online learning can fully replace face-to-face learning (TJT = 2087.50, z = -1.345, p = .179) become more positive.

The study determined that there is a statistically significant difference in students' opinions about their motivation to participate in online lectures on the MS Teams platform (H(3) = 7.268, p = .026) and whether they are studying at 1st-level higher professional education (Mdn = 64.50), bachelor's (Mdn = 65.83) or master's study programmes (Mdn = 36.86). Although students of 1st-level higher professional education and bachelor's study programmes are more motivated to study online on the MS Teams platform than students of a master's study programme, the Jonckheere-Terpstra test does not provide the opportunity to claim that the higher the level of the study programme, the more motivated students are to study on the MS Teams platform (TJT = 1865.50, z = -1.319, p = .187).

The study revealed that students of 1st-level higher professional education (Mdn = 65.39) and bachelor's study programmes (Mdn = 65.45) are more satisfied with online learning on the MS Teams platform than the students of master's study (Mdn = 32.59) programme (H(3) = 9.138, p = .010). Likewise, the students of the 1st-level higher professional education study programme (Mdn = 63.26) and bachelor's study programme (Mdn = 68.86) believe that they spend less time studying on the MS Teams platform than those of the master's study (Mdn = 33.32) programme (H(3) = 10.960, p = .004). Also, in this case, the Jonckheere-Terpstra test does not prove that the higher the level of the study programme, the more satisfied students are with the study on the MS Teams platform (TJT = 1785.50, z = -1.686, p = .092), and also that they spend less time studying (TJT = 1929.50, z = 286, p = .309).

Students of the 1st-level higher professional education study programme (Mdn = 67.49) believe that studying online on the MS Teams platform is more exciting than those of bachelor's (Mdn = 62.83) or master's (Mdn = 29.05) study programmes (H(3) = 11.473, p = .003). The Jonckheere-Terpstra test concluded that the higher the study programme level, the fewer students think that studying online on the MS Team platform is exciting (TJT = 1628.50, z = -2.447, p = .014).

DISCUSSION

This study revealed that it is easy for students to communicate with course mates and lecturers on the MS Teams platform. This finding is consistent with research, which states that by using technology, student learning through collaboration has significantly improved (Kumaran & Periakaruppan, 2023). MS Teams is considered a good platform for collaboration (Poston et al., 2020). However, several studies have found that during the learning online, students feel that they have lost contact with the lecturer (Nasution, 2021). Moreover, direct face-to-face communication and interaction with the lecturer are not possible (Hamdan & Amorri, 2022), and there is a lack of mutual emotional connection (Sonune et al., 2022), which is essential for acquiring knowledge (Velázquez-Rojas et al., 2022) and ensuring the quality of online learning (Hasan & Khan, 2020).

This study found that students rated the quality of lectures on the MS Teams platform and the possibility of accessing information more highly. The results are in accordance with studies showing that online learning provides continuous access to information (Baczek et al., 2021) and that e-learning could improve learning efficiency (Dadhich et al., 2022). The students who participated in this study rated the opportunity to ask questions online at a low level. Also is confirmed in other research that students indicate difficulties in asking questions during online learning (Dagman & Wärmefjord, 2022).

The study determined that students are more motivated to study online on the MS Teams platform because it reduces time consumption and is a more convenient way to learn in a self-created environment. These findings have been approved by studies revealing that online learning allows students to be more flexible with time (Hu, 2022) and enables them to learn in an environment which is more convenient (Baczek et al., 2021; Rojabi, 2020). This study found that fewer students are motivated to study online on the MS Teams platform because, from their point of view, it is not as exciting as learning face-to-face. Excitement may be lost if students find it complicated to learn, and according to previous research, this could be due to technical problems (Sujarwanto, et al., 2021) and overly theoretical and monotonous lectures (Božović & Božović, 2021).

CONCLUSION

The first research question aimed to explore students' perspectives on collaboration while studying online on the MS Teams platform and determine whether their opinions depend on age, study level, form of study and course. Students believe it is easy to communicate with course mates and lecturers on the MS Team platform. The study determined that students' views on communication with course mates and lecturers are not related to the study form, study level and the course studied. However, it was found

that students over the age of 40 have more difficulties connecting with their course mates than students under the age of 40. On the other hand, students who are over 50 years of age believe that it is more difficult for them to communicate with lecturers on the MS Teams platform than students between the age of 30 and 40. It must be acknowledged that the results do not allow us to conclude that with increasing age, it is more difficult for students to communicate with lecturers and course mates while studying online on the MS Teams platform. Students' opinions about the opportunity to be active, express themselves freely and receive the necessary assistance are not related to the form of study, the level of study, the course and the age. The study determined that the most satisfied with mutual collaboration are students under the age of 30 years, and the most dissatisfied are students over the age of 50 years. The statistical analysis of the data makes it possible to conclude that with increasing age, the students' satisfaction with mutual collaboration on the MS Teams platform decreases.

The second research question intended to explore the students' perspectives on the study process using the MS Teams platform, and define whether their opinions depend on age, study level, study form and course. The study revealed that students mostly have a positive attitude towards the online study process on the MS Teams platform, and their opinions are not connected with the form of study, course and age but are related to the level of study. The students of lower-level study programmes believe they had more opportunities to ask questions, understand information, and receive feedback more quickly than the students of the higher-level study programme. These findings require further research to explore, in more detail, the reasons why students have such beliefs.

The third research question was to clarify the students' motivation to study online on the MS Teams platform and to determine whether it is affected by age, level of study, study form and course. The study found that students are more motivated to learn online on the MS Teams platform because of less time consumption, the convenience of studying in their environment and the ability to perform tasks without effort. However, unmotivated students think that learning online is not so exciting because it cannot fully replace face-to-face and does not bring satisfaction. The statistical analysis of the data concluded that students in the first years of study and students of lower-level study programmes consider online learning on the MS Teams platform more exciting than students in final years and higher-level study programmes. These findings also need further research to determine the factors that determine whether lectures on the MS Teams platform are exciting or not.

REFERENCES

- [1] Alam, A. S., Ma, L., Watson, A., Wijeratne, V., & Chai, M. (2022). Transnational education and e-learning during a pandemic: Challenges, opportunities, and future. In M. M. C. Shohel (Ed.), *E-learning and digital Education in the twenty-first century* (pp. 1-26). IntechOpen.
- [2] Almahasees, Z., Mohsen, K., & Amin M. O. (2021). Faculty's and students' perceptions of online learning during COVID-19. Frontiers in Education, 6, Article 638470. https://doi. org/10.3389/feduc.2021.638470.
- [3] Almodaires, A. A., Almutairi, F. M., & Almsaud, T. E. A. (2021). Pre-Service teachers' perceptions of the effectiveness of Microsoft Teams for remote learning. *International Education Studies*, 14(9), 108-121. https://doi.org/10.5539/ies.v14n9p108.
- [4] Baczek, M., Zagańczyk- Baczek, M., Szpringer, M., Jaroszyński, A., & Wożakowska-Kapłon. B. (2021). Students' perception of online learning during the COVID-19 pandemic: A survey study of Polish medical students. *Medicine*, 100(7), Article e24821. https://doi.org/10.1097/MD.000000000024821.
- [5] Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. Human Behavior and Emerging Technologies, 2, 113–115. https://doi.org/10.1002/ hbe2.191.
- [6] Božović, I., & Božović, J. (2021). Challenges of teaching and learning in higher education institutions in the conditions of the COVID-19 pandemic. KNOWLEDGE International Journal, 48(2), 267–273. https://ikm.mk/ojs/index.php/kij/article/view/4738.
- [7] Dadhich, M., Hiran, K. K., Rao, S. S., & Sharma, R. (2022). Impact of COVID-19 on teaching-learning perception of faculties and students of higher education in Indian purview. *Journal of Mobile Multimedia*, 18(4), 957-980. https://doi.org/10.13052/jmm1550-4646.1841.
- [8] Dagman, A., & Wärmefjord, K. (2022). An evidence-based study on teaching computer aided design in higher education during the COVID-19 pandemic. *Education Sciences*, 12(1), Article 29. https://doi.org/10.3390/educsci12010029.
- [9] El Said, G. R. (2021). How did the COVID-19 pandemic affect higher education learning experience? An empirical investigation of learners' academic performance at a university in a developing country. Advances in Human-Computer Interaction, 2021, 1-10. https://doi. org/10.1155/2021/6649524.
- [10] Gautam, D. K., & Gautam, P. K. (2021). Transition to online higher education during COVID-19 pandemic: Turmoil and way forward to developing country of South Asia-Nepal. *Jour-nal of Research in Innovative Teaching & Learning*, 14(1), 93-111. https://doi.org/10.1108/ JRIT-10-2020-0051.
- [11] Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable Operations and Computers*, *3*, 275-285. https://doi.org/10.1016/j.susoc.2022.05.004.
- [12] Hamdan, K., & Amorri, A. (2022). The impact of online learning strategies on students' academic performance. In M. M. C. Shohel (Ed.), E-learning and digital Education in the twenty-first century (pp. 1-20). IntechOpen.
- [13] Hasan, N., & Khan, N. H. (2020). Online teaching-learning during COVID-19 pandemic: students' perspective. The Online Journal of Distance Education and e-Learning, 8(4), 202-213.
- [14] Hu, Y-H. (2022). Effects of the COVID19 pandemic on the online learning behaviors of university students in Taiwan. Education and Information Technologies, 27, 469-491. https://doi.org/10.1007/s10639-021-10677-y.
- [15] Khidir, M. L. B. M., Sa'ari, S. N. B., & Mohammad, A. S. B. (2022). Effectiveness of online learning with Microsoft Team applications in Polimas. EPRA International Journal of Environmental Economics, Commerce and Educational Management, 9(5), 29-33. https://doi.org/10.36713/epra10260.
- [16] Kumaran, V. S., & Periakaruppan, R. M. (2023). COVID-19 pandemic is an eye-opener for academicians to use the technology in the teaching–learning process. *International Journal of Educational Reform*, 32(1), 3-18. https://doi.org/10.1177/10567879221076079.
- [17] Laquindanum, E. M. (2022). Effectiveness of Microsoft Teams: A study of perception among tertiary learners. *International Journal of Recent Research in Social Sciences and Humanities*, 9(2), 88-95. https://doi.org/10.5281/zenodo.6477320.

[18] Martin, L., & Tapp, D. (2019). Teaching with Teams: An introduction to teaching an undergraduate law module using Microsoft Teams. *Innovative Practice in Higher Education*, 3(3), 58-66.

- [19] Nasution. A. K. P. (2021). Higher education in the COVID-19 era: Challenges and assessment. *Jurnal Riset Intervensi Pendidikan*, 3(1), 29-35.
- [20] Nawi, A., & Hamidaton, U. (2022). Exploring student's readiness and behavioural towards virtual learning via Microsoft Teams. *Malaysian Journal of Social Sciences and Humanities*, 7(2), Article e001273. https://doi.org/10.47405/mjssh.v7i2.1273.
- [21] Poston, J., Apostel, S., & Richardson, K. (2020). Using Microsoft Teams to enhance engagement and learning with any class: It's fun and easy. *Transparency in Teaching and Learning: Proceedings of the 2019 Pedagogion Connference Proceedings*, 6, 1-7. https://encompass.eku.edu/pedagogicon/2019/guidinggrading/6.
- [22] Ritonga, A. W., Ritonga, M., Nurdianto, T., Kustati, M., Rehani, R., Lahmi, A., Yasmadi, Y., & Pahri, P. (2020). E-Learning process of Maharah Qira'ah in higher education during the COVID-19 pandemic. *International Journal of Higher Education*, 9(6), 227-235. https://doi.org/10.5430/ijhe.v9n6p227.
- [23] Rojabi, A. R. (2020). Exploring EFL students' perception of online learning via Microsoft Teams: University level in Indonesia. *English Language Teaching Educational Journal*, 3(2), 163-173. https://doi.org/10.12928/eltej.v3i2.2349.
- [24] Sonune, S. J., Gupta, T., Barad, K., Chinoy, D. D., Dcosta, J., & AlAnsaru, M. S. (2022). Changes and challenges in teaching learning process due to COVID -19. *Journal of Positive School Psychology*, 6(3), 7669-7676.
- [25] Sujarwanto, Sheehy, K., Rofiah, K., & Budiyanto (2021). Online higher education: The importance of students' epistemological beliefs, well-being, and fun. *IAFOR Journal of Education*, 9(6), 9-30. https://doi.org/10.22492/ije.9.6.01.
- [26] Tartavulea, C. V., Albu, C. N., Albu, N., Dieaconescu, R. I., & Petre, S. (2020). Online teaching practices and the effectiveness of the educational process in the wake of the COVID-19 pandemic. *Amfiteatru Economic*, 22(55), 920-936. https://doi.org/10.24818/EA/2020/55/920.
- [27] Velásquez-Rojas, F., Fajardo, J. E., Zacharías, D., & Laguna, M. F. (2022). Effects of the COVID-19 pandemic in higher education: A data driven analysis for the knowledge acquisition process. *PLos ONE*, 17(9), Article e0274039. https://doi.org/10.1371/journal.pone.0274039.
- [28] Vijayan, R. (2021). Teaching and learning during the COVID-19 pandemic: A topic modeling study. Education Sciences, 11(7), Article 347. https://doi.org/10.3390/educsci11070347.
- [29] Wea, K. N., & Kuki, A. D. (2020). Students' perceptions of using Microsoft Teams application in online learning during the COVID-19 pandemic. *Journal of Physics: Conference Series*, 1842, Article 012016. https://doi.org/10.1088/1742-6596/1842/1/012016.
- [30] Zarei, S., & Mohammadi, S. (2022). Challenges of higher education related to e-learning in developing countries during COVID-19 spread: A review of the perspectives of students, instructors, policymakers, and ICT experts. Environmental Science and Pollution Research, 29(57), 85562–85568. https://doi.org/10.1007/s11356-021-14647-2.