

# STUDENT SUPPORT AND MOTIVATION IN ONLINE LEARNING: EVIDENCE FROM PILOT ONLINE COURSE IMPLEMENTATION

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**Abstract.** Teaching and learning in a virtual environment bring many changes in the implementation of study content. During online learning, the number of hours of contact learning between the lecturer and students decreases, more attention is paid to students' self-study. Students lose the opportunity to receive informal emotional support from the academic staff and fellow students, and the sense of community and belonging to a higher education institution decreases. The research presented in the article aims to reveal students' opinions about students' support and their motivation during online studies while implementing a pilot online-taught study course. The research was conducted under the Erasmus+ project "Quality of Virtual Studies". Students from four higher education institutions in Lithuania, Spain, Croatia, and Finland participated in implementing the pilot online learning course. Study courses taught remotely were designed based on the quality assurance criteria for virtual studies developed during the project. Students studied the pilot online-taught study course for three months. They completed questionnaires about their online learning experience twice: before and after they started participating in the course. The study results reveal that the most important source of support for students during online studies is communication with the lecturer. It was established that most students' support during remote studies is provided by the following means: personal video or email from the lecturer, clear structure of the course studied remotely, clear procedures of the study course, and pre-announced hours of remote consultations with the lecturer. The study reveals that students are most motivated during online studies by receiving feedback from the lecturer, the interest of the academic staff in students' motivation and motivational tools, a clear study plan of the course studied, the variety of innovative computer technology tools used during online studies, and the contribution of the lecturer, promoting cooperation between learners.

**Keywords:** online learning, student support, learning motivation.

## Introduction

In the last five years, online learning has gained widespread acceptance and importance in learning globally. This was influenced by the rapidly spreading COVID-19 virus. However, online studies were not a complete novelty even before the start of the pandemic. Nevertheless, at that time, all the attention was focused on applying various online education methods in practical activities. However, there was no effective application of virtual tools in the learning process and development of student support (Gustiani, 2020; Chiu, 2022).

Online learning provides an opportunity for all members of society to study in a convenient place and at a convenient time, regardless of age, race, life situation, or social status, without leaving work and place of residence, and thus allows persons to acquire, improve or change their qualifications, attain specialisations or work (Yates et al., 2021; Carter et al., 2020).

Although online studies provide students with greater learning freedom, they require students to have high learning motivation, well-developed self-study skills, personal responsibility, and discipline because the learner has obligations not only to his/her profession and work but also to the children, friends, family, and hobbies (Chiu et al., 2021; Susilawati, Supriyatno, 2020). Demonstrating

students' autonomy is interpreted as a special part of the learning environment, so help and support for the learner are very important (Lee et al., 2019).

Learning in a virtual environment can be easy and challenging simultaneously, as online learning causes many changes while studying and even implementing virtual studies in the curriculum (Kim, Frick, 2011). An increasing number of lecturers and students state that they do not have enough support from each other while they are learning in a virtual environment (Coman et al., 2020). Thus, students increasingly lose their motivation to learn and support and are dissatisfied with the quality of their studies (Barrot et al., 2021).

Usually, students get support at an individual level while learning traditionally. Regarding online studies, students get support just in the curriculum implementation part. It could be challenging for students who need constant support while learning (Elsharnouby, 2015; Que, 2021).

Researchers found that a student's motivation for online learning depends on the methods used during the learning process. Students were motivated by new online learning methods used during lessons, gamification, and "open hours" during the module period (Naseer, Rafique, 2021). Another research showed that students' learning outcomes were three times higher when students had support compared to students who studied individually without additional social support from

the academic staff or online learning support documents (Esra, Sevilen, 2021).

It is mentioned in the scientific literature (Chiu, 2022; Que, 2021) that a smooth student support system and appropriate motivation are a few of the most important factors in successful online learning. Different studies discuss separate student support and motivation methods (Marinho et al., 2021; Hew et al., 2020; Smith et al., 2020), but it is not clear how student support channels, methods and motivational strategies should be combined to ensure the quality of an online learning curriculum.

The following study implemented a three-month pilot online course in four European higher education institutions. The pilot online course was designed and implemented based on the criteria of quality virtual studies developed during the Erasmus+ project “Quality of Virtual Studies”.

*Research problem:* how should students be supported and motivated in online learning?

*Research aim:* to reveal students’ opinions about students’ support and motivation in online learning while implementing pilot online courses.

*Research objectives:*

- to reveal students’ opinions about student support channels in online learning before and after implementing the pilot online learning course (POLC);
- to reveal students’ opinions about student-lecturer, peer-to-peer, and student-higher education institution (HEI) support methods in online learning before and after POLC implementation;
- to reveal students’ opinions about the motivational factors in online learning before and after implementing the POLC.

## Research methodology

The research was implemented in the framework of the Erasmus+ project “Quality of Virtual Studies”. The project aim was pursued through three objectives: 1) creating the methodology for teaching/learning in VLE; 2) improving competencies of the academic staff; 3) pilot testing of the teaching/learning methodology developed.

First, the methodology for teaching/learning in VLE was created. Afterwards, the selected academic staff were introduced to the methodology; they took part in a 3-day training course and designed online learning courses based on the criteria of quality online learning created during the first phase of the project (Guidelines for Teaching in Virtual Learning Environments, 2023). 80 students took part in a pilot three-month online learning course. For the pilot online course, four academic courses (“Career Design and Well-

being”, implemented at Kauno kolegija Higher Education Institution; “Integrated Marketing Communication and Digital Media”, implemented at Zagreb School of Business; “Intercultural Management”, implemented at Francisco de Vitoria University; and “Entrepreneurship”, implemented at Savonia University of Applied Sciences) were developed or adapted for online learning. In every course, 20 students (five students from each institution) participated. All four academic courses were adapted following the same criteria for ensuring quality in online learning (detailed criteria can be found in Guidelines for Teaching in Virtual Learning Environments, 2023). Students were asked to participate in the online survey twice: before and after POLC.

*Research methods.* An Internet survey was used for data collection. Descriptive statistical analysis was applied for data analysis. The questionnaire was created according to the theoretical criteria developed in the Guidelines for Teaching in Virtual Learning Environments (2023) while implementing the Erasmus+ project “Quality of Virtual Studies”. The questionnaire was composed of five sets of questions: students’ support and motivation, learning design, learning dynamics and tools, academic ethics, and contextual questions (age, study year, study area, education institution, etc.). Due to the large volume of data, only the data on students’ support and motivation is presented in this article. The section is comprised of 21 questions, of which four are aimed at identifying the effectiveness of student support channels in online learning, nine at identifying the effectiveness of student support methods in online learning, and eight at motivational factors.

*Research participants.* 38 students in total took part in the pre-survey (response rate 47.5 per cent), and 21 students in the post-survey (response rate 26.25 per cent) (Table 1). The majority of the students were female (73.7 per cent), traditionally aged (81.6 per cent) in their third (36.8 per cent) and fourth (34.2 per cent) year of study and studying in the area of social sciences. 23.7 per cent of students were from Kauno kolegija Higher Education Institution (Lithuania), 36.8 per cent from Francisco de Vitoria University (Spain), 28.9 per cent from Savonia University of Applied Sciences (Finland) and 10.5 per cent from Zagreb School of Business (Croatia) (Table 1).

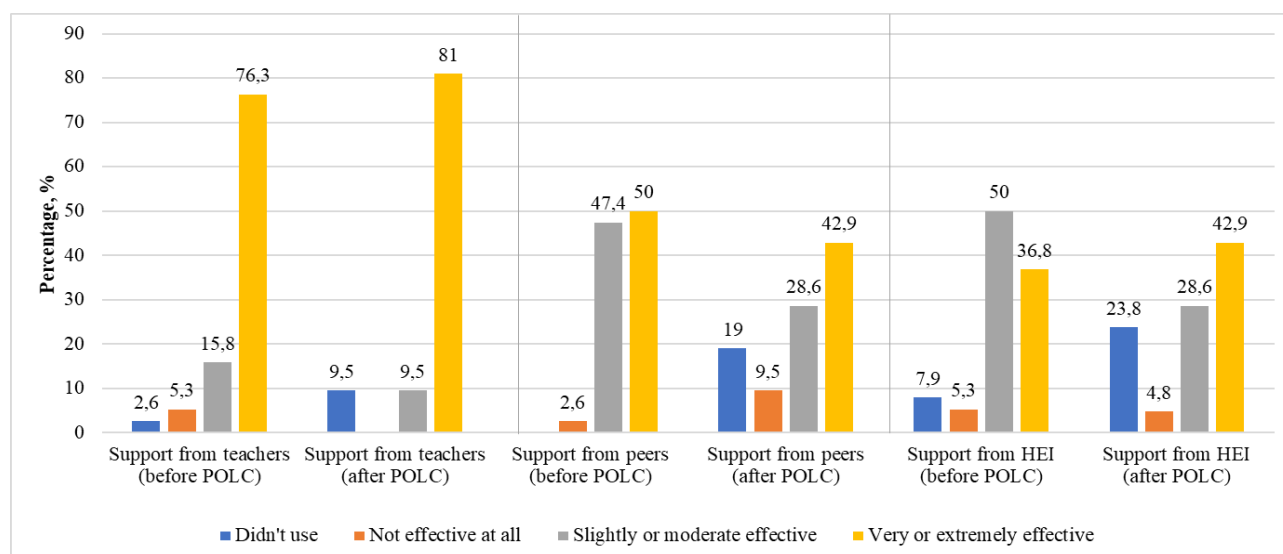
**Table 1.** Participants' (students') demographic statistical data (N=59)

Variables	Categories	Per cent (pre-survey)	Per cent (post-survey)
Gender	Male	23.7	38.1
	<b>Female</b>	<b>73.7</b>	<b>61.9</b>
Study year	First	13.2	9.5
	Second	15.8	19
	<b>Third</b>	<b>36.8</b>	<b>57.1</b>
	<b>Fourth</b>	<b>34.2</b>	14.3
Study area	Humanities	18.4	4.8
	<b>Social Sciences</b>	<b>47.4</b>	<b>52.4</b>
	Medicine and Healthcare	5.3	9.5
	Science	21.1	23.8
	Arts	7.9	9.5
Educational institution	Kauno kolegija Higher Education Institution (Lithuania)	23.7	33.3
	Francisco de Vitoria University (Spain)	36.8	19
	Savonia University of Applied Sciences (Finland)	28.9	28.6
	Zagreb School of Business (Croatia)	10.5	19
Age	<b>Traditional (&lt;25 years)</b>	<b>81.6</b>	<b>71.4</b>
	Non-traditional (>25 years)	18.4	28.6
<b>N (total)</b>		<b>38</b>	<b>21</b>

## Results

Based on the Guidelines for Teaching in Virtual Learning Environments (2023), there are three main student support interactions in online learning: lecturer-student, peer-to-peer, and student-higher education institution (HEI)/administrative staff. The study results revealed that the most important student support interaction in online learning is support from the academic staff. 76.30 per cent of students before the pilot online course and 81 per cent of students after the course stated that lecturer-student support interaction is very or extremely effective in online learning (Fig. 1). About half of the students (50 per cent before the POLC and 42.9 per cent after the POLC) think that support from peers is very or extremely effective during online

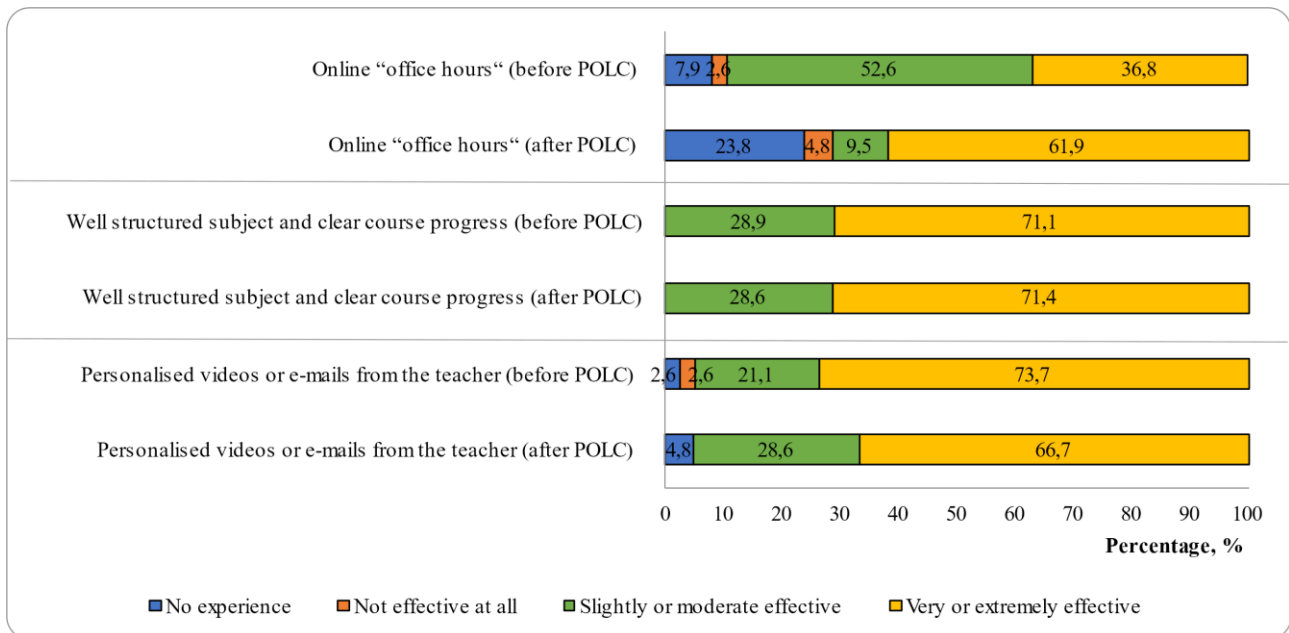
learning. The number of students who thought that peer support was slightly or moderately effective decreased from 47.40 per cent before the course to 28.60 per cent after the course. 19 per cent of students state that they did not use peer support during online learning course implementation (Fig. 1). Based on the study results, the importance of support from higher education institutions increased after implementing the POLC. Before the POLC, 50 per cent of students stated that support from HEI was slightly or moderately effective, and only 28.6 per cent of students stated the same after the course. It should be noted that 23.8 per cent of students did not use support from HEI during the online course (Fig. 1). This result shows that well-organised lecturer-student support can decrease the need for support from peers and HEI during online learning.



**Fig. 1.** Students' opinion about student support channels before and after POLC (before N=38, after N=21)

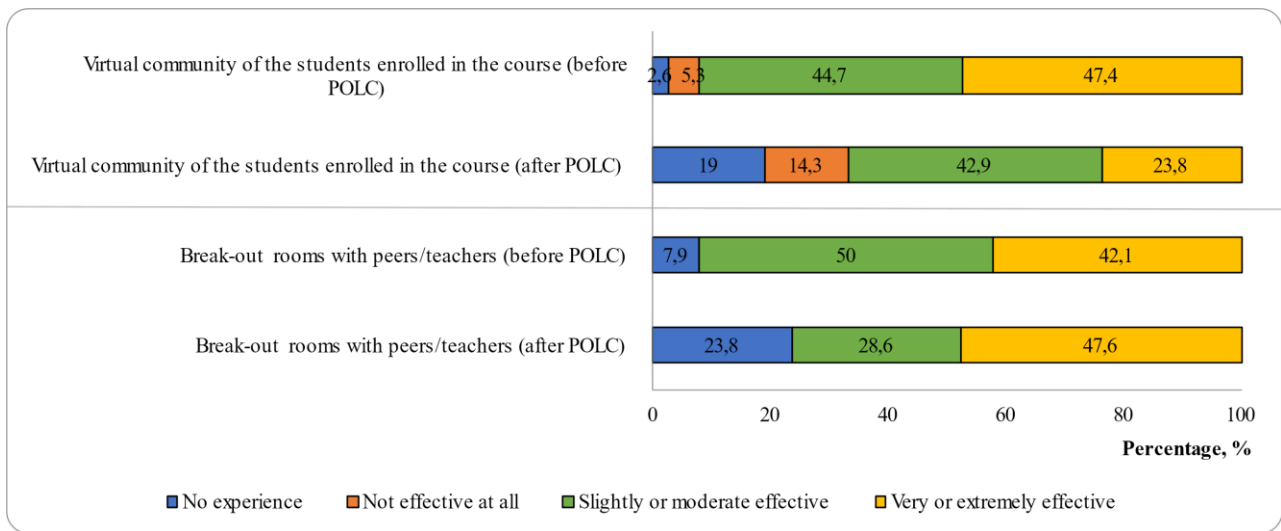
The importance of lecturer-student interaction has been evaluated through three student support methods: “personalised videos or emails from the lecturer”, “well-structured subject”, “clear course progress”, and online “office hours”. Most students (73.70 per cent before POLC, 66.70 after POLC) stated that “personalised videos or emails” are a very or extremely effective student support method in online learning (Fig. 2). The results of the study show that students’ opinions about the effectiveness of “well-structured course” and “clear course

progress” in online learning did not change after the online learning course. 71.10 per cent of students before POLC and 71.40 per cent of students after the POLC stated that “well-structured course” and “clear course progress” are very or extremely effective in online learning. After the implementation of the POLC, the number of students (from 36.80 per cent to 61.90) who stated that “online office hours” are a very or extremely effective student support method in online learning increased (Fig. 2).



**Fig. 2.** Students’ opinion about student-lecturer support before and after POLC (before N=38, after N=21)

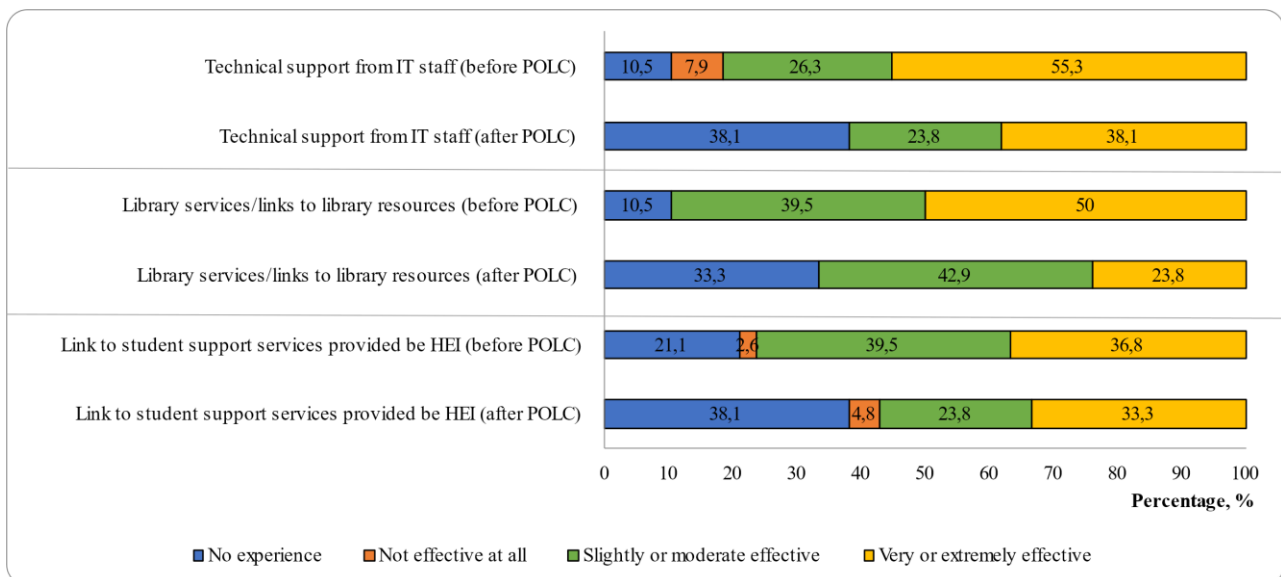
The effectiveness of student-student interaction has been evaluated through two student support methods: break-out rooms with peers/lecturers and a virtual community of the students enrolled in the course. The results of the study show that 50 per cent of students before POLC stated that “break-out rooms with peers/lecturers” are slightly or moderately effective, while after POLC, only 28.60 per cent of students had the same opinion (Fig. 3). Furthermore, the result shows that guidelines and training for the academic staff helped improve the effectiveness of the application of break-out rooms during online learning. Before POLC, 47.40 per cent of students stated that “virtual community” is an effective student support method in online learning, while after POLC, only 23.80 per cent of them had the same opinion. The results show that “virtual community” as a student support method can be effective only for a small number of students during an online course (Fig. 3).



**Fig. 3.** Students' opinion about peer-to-peer student support in online learning before and after POLC (before N=38, after N=21)

The importance of student-HEI interaction has been evaluated through three student support methods: the link to students' support services provided by HEI, links to library resources and technical support from IT staff. According to the students, the effectiveness of all student-HEI interaction methods decreased after the implementation of the pilot online course: "library services" (before the course, 50 per cent of students stated that it is very or extremely effective in online learning, and 23.80 per cent after), "technical support from IT staff" (before the course, 55.30 per cent of students stated that it is very or extremely effective in online learning, and 38.10 per cent

after), "link to students' support services provided by HEI" (before the course, 36.80 per cent of students stated that it is very or extremely effective in online learning, 33.30 per cent after) (Fig. 4). The study results reveal that a large number of students have not used these students' support services: 38.10 per cent of students did not use "technical support from IT staff" and "link to students' support services provided by HEI", while 33.30 per cent of students did not use "links to library resources" (Fig. 4). The result allow assuming that student-HEI interaction is less effective in online learning when compared to student-lecturer and peer to peer interactions.



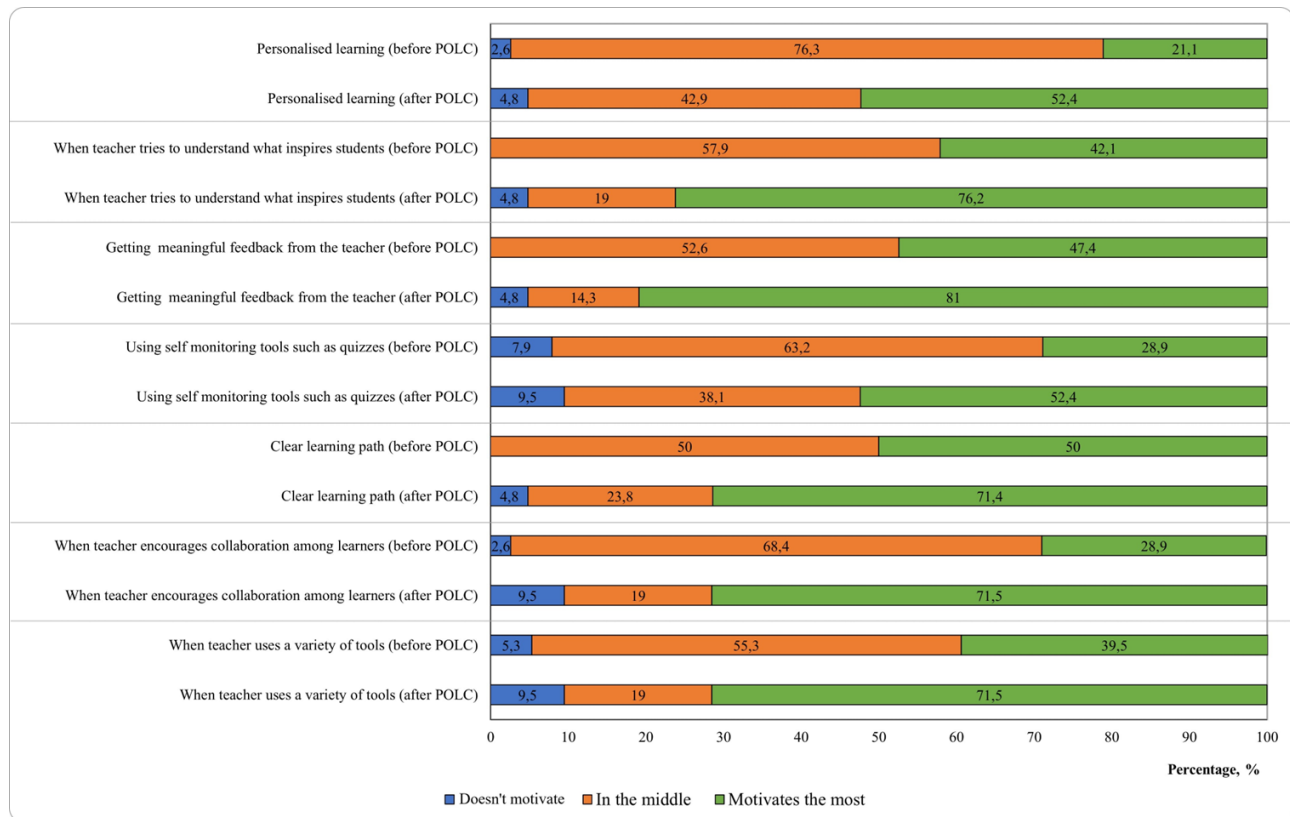
**Fig. 4.** Students' opinion about student-HEI support before and after POLC (before N=38, after N=21)

Before implementing the POLC, students stated that during online learning, they are most motivated by such factors as personalised learning (76.30 per cent), using self-monitoring tools such as quizzes

(63.20 per cent) and "when lecturers encourage collaboration among learners" (68.40 per cent) (Fig. 5). After implementing POLC, students stated that during online learning, they were motivated the

most by such learning elements as “getting meaningful feedback from the lecturer” (81 per cent), “when lecturers try to understand what inspires students” (76.20 per cent), “when lecturers

use a variety of tools” (71.50 per cent), “when lecturers encourage collaboration among learners” (71.50 per cent) and “clear learning path” (71.40 per cent) (Fig. 5).



**Fig. 5.** Students’ opinion about motivational factors in online learning before and after POLC

The results of implementing the pilot online course show that the effectiveness of all motivational factors increased after implementing the course.

## Conclusions

1. The study results revealed that student-lecturer support was the most effective student-support interaction before and after the pilot online course implementation. Peer-to-peer interaction tends to be more effective than student-HEI interaction in online learning.

- The implementation of the pilot online course has shown that the most effective student support methods in online learning are “personalised video or emails from the lecturer”, “well-structured course”, “clear course progress”, and “online office hours”.
- The study results showed that students are the most motivated during online learning by the following factors: “getting meaningful feedback from the lecturer”, “when the lecturer tries to understand what inspires students”, “when the lecturer uses a variety of tools”, “when the lecturer encourages cooperation among learners” and “clear learning path”.

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## PARAMA STUDENTAMS IR JŲ MOTYVAVIMAS VYKDANT NUOTOLINES STUDIJAS: ĮRODYMAI IŠ PILOTINIO NUOTOLINIŲ BŪDŲ STUDIJUOTO STUDIJŲ DALYKO

### Santrauka

Mokymas ir mokymasis virtualioje studijų aplinkoje kelia daug pokyčių įgyvendinant studijų turinį. Mokantis nuotoliniu būdu, sumažėja dėstytojo ir studentų kontaktinio mokymosi valandų, didesnis dėmesys skiriamas savarankiškam studentų mokymuisi, studentai praranda galimybę gauti neformalią emocinę paramą iš dėstytojų bei bendrakursių, mažėja bendruomeniškumo, priklausymo aukštojo mokslo institucijai jausmas. Straipsnyje pristatomo tyrimo tikslas yra atskleisti studentų nuomonę apie paramą studentams ir jų motyvavimą vykdant nuotolines studijas, įgyvendinant pilotinį nuotoliniu būdu dėstomą studijų dalyką. Tyrimas buvo atliktas įgyvendinant Erasmus+ projektą „Virtualių studijų kokybė“. Keturių aukštųjų mokyklų studentai Lietuvoje, Ispanijoje, Kroatijoje ir Suomijoje dalyvavo studijuojant pilotinį nuotolinį studijų dalyką. Nuotoliniu būdu dėstomi studijų dalykai buvo parengti pagal vykdant projektą parengtus virtualių studijų kokybės užtikrinimo kriterijus. Pilotinį nuotoliniu būdu dėstomą studijų dalyką studentai mokėsi tris mėnesius. Klausimynus apie savo nuotolinio mokymosi patirtį studentai pildė du kartus: prieš pradėdami dalyvauti kurse ir jam pasibaigus. Tyrimo rezultatai atskleidė, kad studijuojant nuotoliniu būdu studentams svarbiausias paramos šaltinis yra bendravimas su dėstytoju. Nustatyta, kad daugiausiai paramos per nuotolines studijas studentams suteikia tokios priemonės kaip dėstytojo asmeninis video ar el. laiškas, aiški nuotoliniu būdu studijuojamo dalyko struktūra, aiški dalyko studijų eiga, iš anksto skelbiamos nuotolinių konsultacijų su dėstytoju valandos. Tyrimas atskleidė, kad studentus studijuojant nuotoliu labiausiai motyvuoja grįžtamasis ryšys iš dėstytojo, jo domėjimasis studentų motyvacija ir motyvavimo priemonėmis, aiškus studijuojamo dalyko studijų planas, studijuojant nuotoliu naudojamų inovatyvių kompiuterinių technologijų įrankių įvairovė, dėstytojo indėlis, skatinant bendradarbiavimą tarp besimokančiųjų.

**Reikšminiai žodžiai:** nuotolinis mokymas, parama studentams, studijavimo motyvacija.

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