

## The Effectiveness of Online Teaching: A Study in the Romanian Context

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*This article focuses on the effectiveness of online teaching in the academic environment and outlines the research method, data collection, and instrument development used in the study. The survey seeks to explore students' perceptions of online learning usage, frequency, and overall satisfaction at the "Constantin Brancusi" University, the Faculty of Medical and Behavioural Sciences, carefully considering their experience and performance in order to determine whether online teaching is a viable substitute for face-to-face teaching. It was found that students liked the online experience and most viewed the Internet as a rich source of information and authentic materials having offered more resources in the online environment than in face-to-face, but a few things need to be changed such as new investments in course design, instructor support, and course evaluations. Research suggests that teachers were prepared for the online teaching and most students had almost the same outcomes in the online environment as in the face-to-face format.*

**Keywords:** *online teaching, face-to-face teaching, survey, digital tools, higher education*

### Introduction

The success of e-learning depends on appropriate teaching methods, course content, assessment criteria, students' motivation, flexibility, time efficiency, resources and interaction. Curriculum development for online learning courses requires more than simply moving traditional instruction methods into the online environment, it is about transforming them. In synchronous learning teachers use media such as video conferencing, live chatting, podcasts and live-streaming lectures because in this way learners are encouraged to participate rather than feeling isolated.

Telling is not teaching and listening is not learning. Santhi et al. (2017) consider that in such a situation, adopting interactive teaching methodology in the language classroom is the only way to make the learners get motivated and enthusiastic in the learning process. Even if teaching and learning experiences are demanding of both teachers and students, there are tools to support online courses and do almost everything that could be done in face-to-face courses. Boettcher and Conrad (2016) consider that we have social media tools and the "Internet of things" connecting everyone with everything, we have real-time synchronous classrooms, massive open online courses (MOOCs), spontaneous collaboration tools, an almost infinite number of web tools, smart phones, and wearables that support synchronous chat, video messaging, and more than that learners can be

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engaged in extensive collaborative and reflective activities, from anywhere, at any time.

Suresh et al. (2018) believe that e-learning platforms offer many advantages to learners such as control over the content, control over the time spent learning, and thus the process can be adapted according to the learner needs and objectives of learning.

Yusuf and Al-Banawi (2013) consider that when using e-learning platforms there are also some obstacles in students' process of learning, such as decreased motivation in students, delayed feedback or help because teachers are not always available and the feeling of isolation due to lack of physical presence of classmates.

This paper aims to illustrate students' perceptions on the effectiveness of online teaching and learning in a university that used for the first time the e-learning platform Microsoft Teams and the online environment because of the pandemic. It provides conclusive results which show that e-learning was attractive to students but improvements need to be done in course design, instructor support, evaluations and Internet connection.

## **Literature Review**

Distance education is not new, the technology is new. It has evolved from correspondence courses to what we have today. E-learning or online learning is a relatively new phenomenon associated with the development of the Internet in the 1990s and has its origins in distance education both using media to support massive learning without face-to-face interaction. The evolution of the e-learning model has been linked to the evolution of the World Wide Web and there are many definitions of e-learning.

Academic experts in the field of education and Information and Communications Technology gave explicit definitions of the term "e-learning". Rosenberg (2001, p. 48), an independent consultant specializing in knowledge management and e-learning strategy, describes e-learning as "the use of internet technologies to deliver a broad array of solutions that enhance knowledge and performance." In 2003, Stockley defined e-learning as "the delivery of a learning, training or education program by electronic means. E-learning involves the use of a computer or electronic device (e.g., a mobile phone) in some way to provide training, educational or learning material." Horton (2006, p. 1) provides a succinct working definition of e-learning: "E-learning is the use of information and computer technologies to create learning experiences." McVay Lynch and Roecker (2007) elaborate the following definition:

E-learning is facilitated and supported through the use of information and communication technology, e-learning can cover a spectrum of activities from supported learning, to blended learning (the combination of traditional and e-learning practices), to learning that is entirely online. (p. 6)

Garrison (2017, p. 21) describes e-learning as "the utilization of electronically mediated asynchronous and synchronous communication for the purpose of

thinking and learning collaboratively.” Cambridge dictionary gives the following definition: “learning done by studying at home using computers and courses provided on the internet.” Wright (2015) thinks that e-learning transformed education pushing teaching and learning to evolve:

E-learning is pushing teaching and learning design to evolve and reflect a more authentic and accurate representation of how we as humans, actually learn. What appears to be a “new” era of knowledge delivery, actually reflects how humans have traded in knowledge for millions of years. Our individualistic educational culture is beginning to recognize the wisdom of collective principles in learning and knowledge. (p. 20)

As our smartphone became glued to our hands, M-Learning or Mobile Learning has also changed the education being around in one form or the other since the early 2000s. Cambridge dictionary defines M-learning as: “the use of electronic devices such as smart phones, laptop computers, and tablets as teaching devices.” Some of the advantages of M-learning are: providing learning on the go because the content is available in your pockets, supporting all types of media to create a dynamic and engaging experience, enabling students to learn at their own pace and simplifying communication. But as any other type of device, mobiles can distract learners who open the mobile to learn something and end up using social media; a lack of Internet connection or poor connection quality lead to frustration and it is not conducive to recall the material and, more than that, it is more a review of information rather than prolonged learning. Brown and Mbatl (2015, p. 116) consider that it is not simply learning while in motion and that mobile learning can offer “seamless access to learning support.”

Motaghian et al. (2013) carried out a survey in Iran collecting data from 115 universities in order to measure adoption of e-learning systems. Results showed that there is an increase in the adoption of the e-learning system among the instructors.

Distance learning has continued to grow in many different directions, another form that helps students get engaged and supports learning is the virtual reality defined as a computer-generated simulation of a three-dimensional image or environment a person using special electronic equipment such as a headset can interact within a seemingly real or physical way. VR headsets aim to create an immersive language learning environment where users can move, talk, make decisions, and interact with the world around them in a virtual way. This revolutionizes the way that people learn and practice language because users can talk to a passenger on a train, order food in a restaurant, so they can practice their knowledge in real-time conditions.

Hansson (2005) gives the example of Nordplus, a Nordic network of educators and a successful innovation in game design, today called modern massive multiplayer online game (MMOG). The overall idea of the mother-network is to provide a comprehensive ‘edutainment’ design being mediated by a software platform—a virtual 3D-server hosting a platform containing a chat, a world (D-tale) to move about in, and a building-function.

Hodges et al. (2020) distinguish between online education and emergency remote teaching considering that online education presupposes an existing organizational infrastructure, serving the purposes of online teaching and learning.

## **Methodology**

The purpose of this research study is to explore students' perceptions on the effectiveness of online learning usage, frequency, and overall satisfaction at the "Constantin Brancusi" University, the Faculty of Medical and Behavioural Sciences. The target population is represented by students from "Constantin Brancusi" University of Tg-Jiu who share common e-learning courses. 105 respondents of the study described the experiences in the e-learning environment they have used in the higher education setting. They were also selected on the basis of convenience sampling. The students from the first year of study don't know each other outside the e-learning environment and the students from the other years of study have the possibility to attend both face-to-face and online courses. The environment framework is within the Microsoft Teams platform which allows meetings for free with up to 300 students, access persistent chat, organizing classrooms and assignments, collaborating and sharing files, and access class materials. Some of the most important features of the online platform are: assignments, screen sharing, whiteboard, raise your hand, custom background, breakout rooms.

Fowler and Floyd (2008) point out that survey research provides a quantitative or numeric description of trends, attitudes, or opinions of a population by using questionnaires and interviews for data collection. He considers that a survey brings together three methodologies: sampling, designing questions and data collecting.

This quantitative research study used a survey questionnaire to obtain feedback from students on their perceptions of the use and satisfaction with online learning through e-learning platforms. The research consisted of a survey based on a questionnaire of 15 questions. Data were analyzed using SPSS 26 statistics programme. The analyzed sample was 105 students, distributed by 7 specializations as follows: 15 Pharmacy Assistant students in the 1<sup>st</sup> year of study, 15 Pharmacy Assistant students in the 3<sup>rd</sup> year of study, 15 Nursing students in the 1<sup>st</sup> year of study, 15 Physical education and sport students in the 2<sup>nd</sup> year of study, 15 Kinesiotherapy students in the 2<sup>nd</sup> year of study, 15 Midwives students in the 1<sup>st</sup> year of study, 15 Midwives students in the 4<sup>th</sup> year of study within Constantin Brancusi University.

The survey had two goals: (1) to determine how effective the e-learning was, and (2) to gather feedback from students about online learning usage, frequency, and overall satisfaction.

### *Data Collection Method*

Data was collected online by filling a questionnaire that was sent by e-mail and uploaded on the e-platform during the first semester of the 2020–2021

academic year. The participants in the study received information about the purpose of the survey and approved the participation to the study. The e-mail addresses were not collected in order to respect anonymity and confidentiality.

### *The Research Instrument*

The questionnaire included items corresponding to the fifteen research questions. For the first research question, concerning the experience with online education, a 5 point scale was used (5=excellent, 4=good, 3=average, 2=below average, 1-poor). For the second question, participants chose the device they used (laptop, smartphone, tablet, desktop). For the third question concerning the time spent online, they had 5 multiple choices (1-3 hours, 3-5 hours, 5-7 hours, 7-10 hours, 10+ hours). For the fourth question about the effectiveness of remote learning, a 5 point scale was also used (5=extremely effective, 4=very effective, 3=moderately effective, 2=slightly effective, 1=not at all effective). For the fifth, the seventh, the eighth, the ninth, the tenth, the eleventh, the twelfth, the thirteenth, the fourteenth and the fifteenth question, a 4-point scale was used (yes, absolutely; yes, but with someone else's help/yes, but it depended on the course/yes, but I had less interaction/yes, but not sufficient; not really; no, not at all). For the sixth question concerning how helpful teachers have been in the online environment, a 5 point scale was used, where, 5=extremely helpful, 4=very helpful, 3=moderately helpful, 2=slightly helpful, 1=not at all helpful.

Research question 1: How was your experience with the online education?

Research question 2: What device have you used for online learning?

Research question 3: How much time have you spent each day in the online environment?

Research question 4: How effective has remote learning been for you?

Research question 5: Have you enjoyed learning remotely?

Research question 6: How helpful have your teachers been while studying online?

Research question 7: Has online teaching been frustrating because of technical problems?

Research question 8: Have teachers been prepared for online teaching and using online tools?

Research question 9: Have you had more interaction in online learning or in face-to-face learning?

Research question 10: Have the teachers provided you with the necessary learning materials – PowerPoint presentations, course syllabus etc.?

Research question 11: Have teachers assigned you homework/tasks during online teaching?

Research question 12: Have you achieved the same learning outcomes that are at least equivalent to those of in-person courses?

Research question 13: Have you had more resources (PowerPoint presentation, course syllabus, visual and audio material) when teaching online compared to traditional teaching?

Research question 14: Has it been convenient to you that you could access your online courses any time and from any place?

Research question 15: Has it been easy for you to use the remote learning tools: MS Teams, Zoom, UCB platform etc.?

## Results of the Empirical Analysis

The survey developed for the study was designed to collect quantitative data for analysis. The 105 students, distributed by 7 specializations expressed their opinions concerning online learning. This descriptive survey research study sought to answer the 15 research questions through the collection of convenience sampling of students.

The centralized data, in absolute value and in values expressed as a percentage, are presented in Tables 1-8 and Figures 1-7.

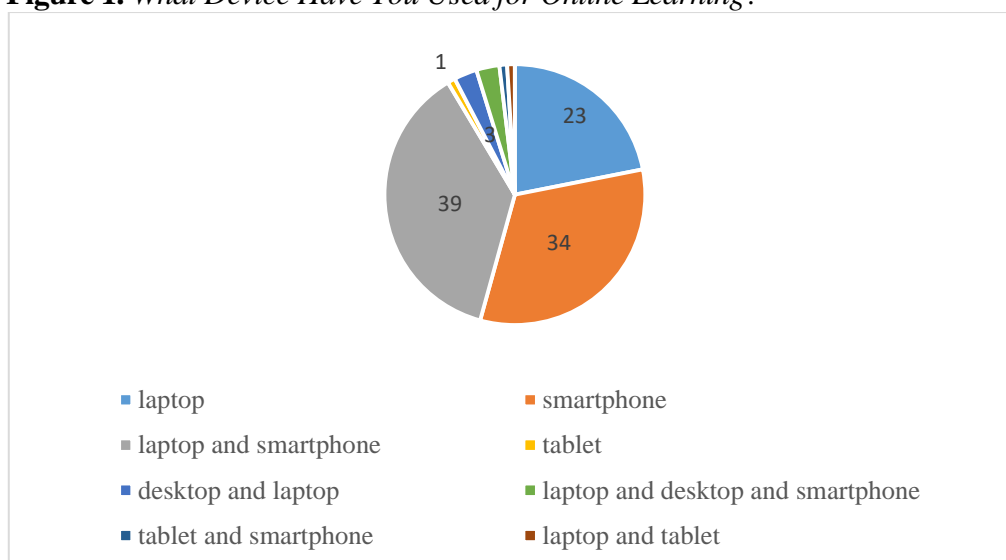
**Table 1.** How Was Your Experience with Online Education?

Academic specialization	Answers										Total
	Poor		Below average		Average		Good		Excellent		
	N	%	N	%	N	%	N	%	N	%	
Pharmacy Assistant I	0	0%	0	0%	2	13.34%	13	86.66%	0	0%	15
Pharmacy Assistant III	0	0%	1	6.67%	3	20%	11	73.33%	0	0%	15
Nursing I	0	0%	0	0%	2	13.33%	10	66.67%	3	20%	15
Physical education and sport II	0	0%	0	0%	3	20%	11	73.33%	1	6.67%	15
Kinesiotherapy II	0	0%	0	0%	3	20%	10	66.67%	2	13.34%	15
Midwives I	0	0%	0	0%	1	6.67%	13	86.66%	1	6.67%	15
Midwives IV	1	6.67%	0	0%	0	0%	14	93.33%	0	0%	15
<b>Total</b>	<b>1</b>	<b>0.95%</b>	<b>1</b>	<b>0.95%</b>	<b>14</b>	<b>13.33%</b>	<b>82</b>	<b>78.10%</b>	<b>7</b>	<b>6.67%</b>	<b>105</b>

\*Data source: data processed by the author based on data collected through questionnaires distributed to students.

\*N- is the number of students who chose that option; % represents the percentage of students who opted for that answer from the total of the sample (15, respectively 105 in the TOTAL column).

We note that 78.10% of the 105 students consider that their experience of online learning was *good*, 6.67% consider that the experience was *excellent*, 13.33% consider it *average*, 0.95% of students rate online learning as *poor* and 0.95% *below average*. Midwives students from the 1<sup>st</sup> year of study are the most enthusiastic about online learning, with 6.67% of them appreciating it as *excellent* and 86.66% of them appreciating it as *good*, followed by Midwives students in the 4<sup>th</sup> year of study, 93.33% of them appreciating the online interaction as *good*. We also notice that 20% of Nursing students from the 1<sup>st</sup> year of study appreciated the online learning as *excellent*. (Here these results would be related to the typology of the courses. Pharmacy students need practice in a laboratory, and those from Physical education and sport need practice in gym or on sport grounds etc.).

**Figure 1.** What Device Have You Used for Online Learning?

\*Data source: data processed by the author based on data collected through questionnaires distributed to students.

Figure 1 presents the distribution of the 105 students analyzed according to the answer to the second question, Q2. We note that 39 of the 105 students used a laptop and smartphone for their online learning, 34 used a smartphone, 23 a laptop, 3 used a desktop and laptop or a laptop/desktop/smartphone and 1 used only a tablet, a tablet and a laptop, a tablet and a smartphone at the same time. Consequently, students preferred smartphones for communication because they have easily access to the Internet. Most students did not have laptops so taking part in courses on a smartphone was not so convenient especially when writing and uploading homework.

**Table 2.** How Much Time Have You Spent Each Day on Online Education?

Academic specialization	Answers										Total N
	1-3 hours		3-5 hours		5-7 hours		7-10 hours		10+ hours		
	N	%	N	%	N	%	N	%	N	%	
Pharmacy Assistant I	1	6.67%	7	46.66%	3	20%	2	13.33%	2	13.34%	15
Pharmacy Assistant III	3	20%	6	40%	5	33.33%	1	6.67%	0	0%	15
Nursing I	6	40%	6	40%	1	6.67%	2	13.33%	0	0%	15
Physical education and sport II	3	20%	11	73.33%	1	6.67%	0	0%	0	0%	15
Kinesiotherapy II	2	13.33%	7	46.66%	6	40%	0	0%	0	0%	15
Midwives I	3	20%	12	80%	0	0%	0	0%	0	0%	15
Midwives IV	0	0%	14	93.33%	1	6.67%	0	0%	0	0%	15
<b>Total</b>	<b>18</b>	<b>17.14%</b>	<b>63</b>	<b>60%</b>	<b>17</b>	<b>16.19%</b>	<b>5</b>	<b>4.76%</b>	<b>2</b>	<b>1.91%</b>	<b>105</b>

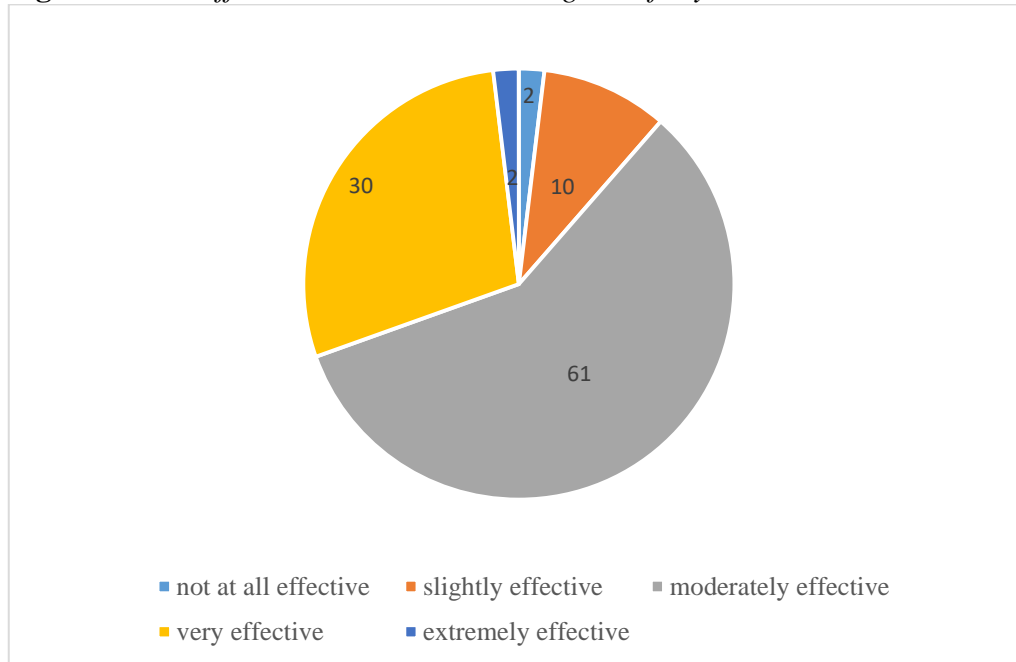
\*Data source: data processed by the author based on data collected through questionnaires distributed to students.

\*N- is the number of students who chose that option; % represents the percentage of students who opted for that answer from the total of the sample (15, respectively 105 in the TOTAL column).

The data in Table 2 show that 60% of respondents spent 3-5 hours on the platform, 17.14% spent 1-3 hours, 16.19% spent 5-7 hours, 4.76% spent 7-10 hours and only 1.91% spent over 10 hours in the online environment.

We are living in ultra-connected times so most of the students spend more time on social media, online games and streaming media instead of revising or studying so they pack around 10-14 hours a day. If they attend 3 courses a day, do some homework, read the teaching material and after that watch a movie, play a game or check Facebook and Instagram, they will spend the whole day online.

**Figure 2.** How Effective has Remote Learning been for you?



\*Data source: data processed by the author based on data collected through questionnaires distributed to students.

Figure 2 shows how effective the remote learning was for the students. For 61% the remote learning was *moderately effective*, for 30% was *very effective* and for 10% *slightly effective*. 2% of respondents do not consider remote learning effective and 1% think that it is *extremely effective*.

In Figure 2, we present the distribution of the 105 students analyzed according to the answer to the fourth question, Q4.



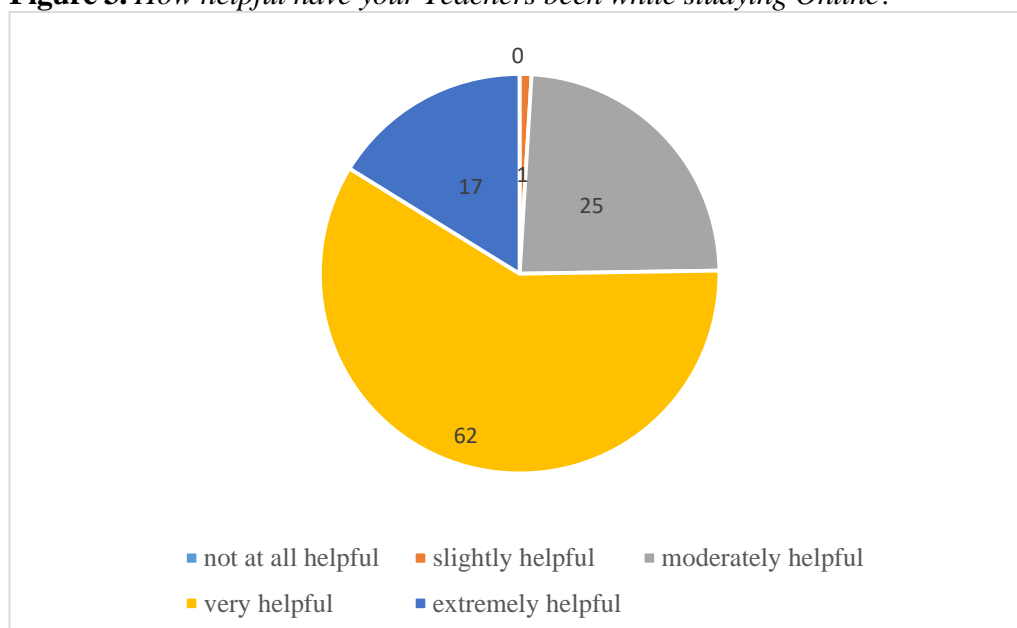
**Table 3.** *Have you Enjoyed Learning Remotely?*

Academic specialization	Answers								Total
	Yes, absolutely		Yes, but I would like to change a few things		Not really		No, not at all		
	N	%	N	%	N	%	N	%	
Pharmacy Assistant I	6	40%	8	53.33%	1	6.67%	0	0%	15
Pharmacy Assistant III	6	40%	3	20%	6	40%	0	0%	15
Nursing I	6	40%	6	40%	3	20%	0	0%	15
Physical education and sport II	9	60%	5	33.33%	1	6.67%	0	0%	15
Kinesiotherapy II	3	20%	8	53.33%	4	26.67%	0	0%	15
Midwives I	4	26.67%	9	60%	2	13.33%	0	0%	15
Midwives IV	1	6.67%	9	60%	5	33.33%	0	0%	15
<b>Total</b>	<b>35</b>	<b>33.33%</b>	<b>48</b>	<b>45.72%</b>	<b>22</b>	<b>20.95%</b>	<b>0</b>	<b>0%</b>	<b>105</b>

\*Data source: data processed by the author based on data collected through questionnaires distributed to students.

\*N- is the number of students who chose that option; % represents the percentage of students who opted for that answer from the total of the sample (15, respectively 105 in the TOTAL column).

Clearly, the transition to online learning is not without its challenges. Table 3 shows us that 45.72% of the students liked the experience but they would like to change a few things, 33.33% absolutely liked to learn online while 20.95% did not really like it. Now that we know how students feel about this new learning environment, however, better remote learning solutions could be built.

**Figure 3.** *How helpful have your Teachers been while studying Online?*

\*Data source: data processed by the author based on data collected through questionnaires distributed to students.

Online teachers need to be tech-savvy and comfortable with the latest online tools and technology. Using technology regularly in their day-to-day life can help teachers stay up to date with the latest innovations. Teachers need to help students

to use education technology platforms for uploading homework, accessing teaching materials, doing tasks etc. As Figure 3 shows us, 62 of respondents considered that teachers were *very helpful* while 25 considered teachers were *moderately helpful*. For 17 students, teachers were *extremely helpful* and for 2 students, they were *slightly helpful* in the online environment.

**Table 4.** *Has Online Teaching been Frustrating because of Technical Problems?*

Academic specialization	Answers								Total
	Yes, absolutely		Sometimes		Not really		No, not at all		
	N	%	N	%	N	%	N	%	
Pharmacy Assistant I	1	6.67%	12	80%	0	0%	2	13.33%	15
Pharmacy Assistant III	1	6.67%	12	80%	0	0%	2	13.33%	15
Nursing I	2	13.33%	10	66.67%	2	13.33%	1	6.67%	15
Physical education and sport II	0	0%	4	26.67%	9	60%	2	13.33%	15
Kinesiotherapy II	0	0%	13	86.67%	2	13.33%	0	0%	15
Midwives I	1	6.67%	11	73.33%	1	6.67%	2	13.33%	15
Midwives IV	1	6.67%	13	86.67%	0	0%	1	6.67%	15
<b>Total</b>	<b>6</b>	<b>5.71%</b>	<b>75</b>	<b>71.43%</b>	<b>14</b>	<b>13.34%</b>	<b>10</b>	<b>9.52%</b>	<b>105</b>

\*Data source: data processed by the author based on data collected through questionnaires distributed to students.

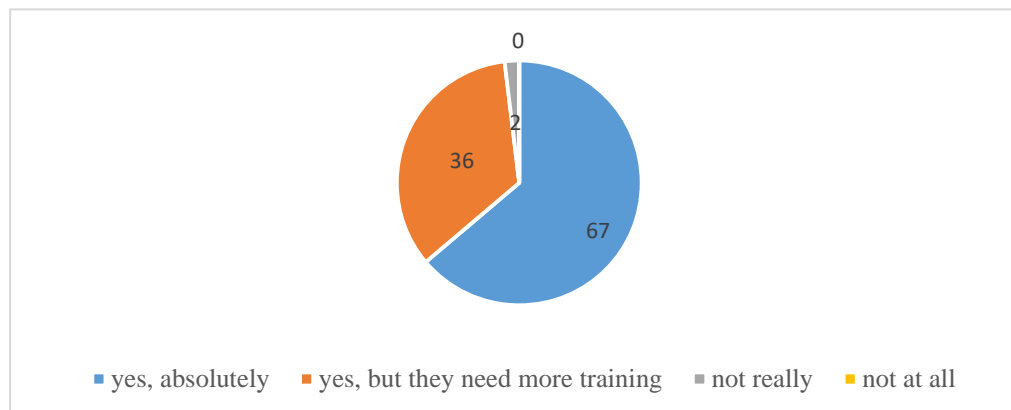
\*N- is the number of students who chose that option; % represents the percentage of students who opted for that answer from the total of the sample (15, respectively 105 in the TOTAL column).

E-Learning, as a fairly new way of learning, provides a multitude of new opportunities but also presents difficulties for online students because of bad Internet connection, unclear instructions, lack of communication, course quality and presentation etc.

As we can see from the above data, 71.43% of the respondents sometimes had technical problems, 13.34% did not really have such problems, 9.52% did not have problems at all and 5.71% really had technical problems.

In Table 4, we presented the distribution of the 105 students analyzed according to the answer to the seventh question, Q7.

**Figure 4.** *Have Teachers been prepared for Online Teaching and using Online Tools?*



\*Data source: data processed by the author based on data collected through questionnaires distributed to students.

Many teachers received a guide for using the platform and little support for using all the features of the platform. From my point of view, older teachers who are not accustomed to the new technology had a big problem of using the online platform.

67 of the respondents answered that teachers were *absolutely* prepared for online teaching, 36 considered that *they needed more training*, and 2 thought they are *not really prepared*.

In Figure 4, we presented the distribution of the 105 students analyzed according to the answer to the eighth question, Q8.

**Table 5.** Have you had more Interaction in Online Learning or in Face-to-Face Learning?

Academic specialization	Answers								Total
	Yes, absolutely		Yes, but it depended on the course		Not really		No, not at all		
	N	%	N	%	N	%	N	%	
Pharmacy Assistant I	5	33.33%	9	60%	1	6.67%	0	0%	15
Pharmacy Assistant III	0	0%	10	66.67%	4	26.67%	1	6.66%	15
Nursing I	4	26.67%	8	53.33%	3	20%	0	0%	15
Physical education and sport II	3	20%	5	33.33%	7	46.67%	0	0%	15
Kinesiotherapy II	0	0%	9	60%	6	40%	0	0%	15
Midwives I	1	6.67%	13	86.67%	1	6.66%	0	0%	15
Midwives IV	0	0%	14	93.33%	1	6.67%	0	0%	15
<b>Total</b>	<b>13</b>	<b>12.38%</b>	<b>68</b>	<b>64.76%</b>	<b>23</b>	<b>21.91%</b>	<b>1</b>	<b>0.95%</b>	<b>105</b>

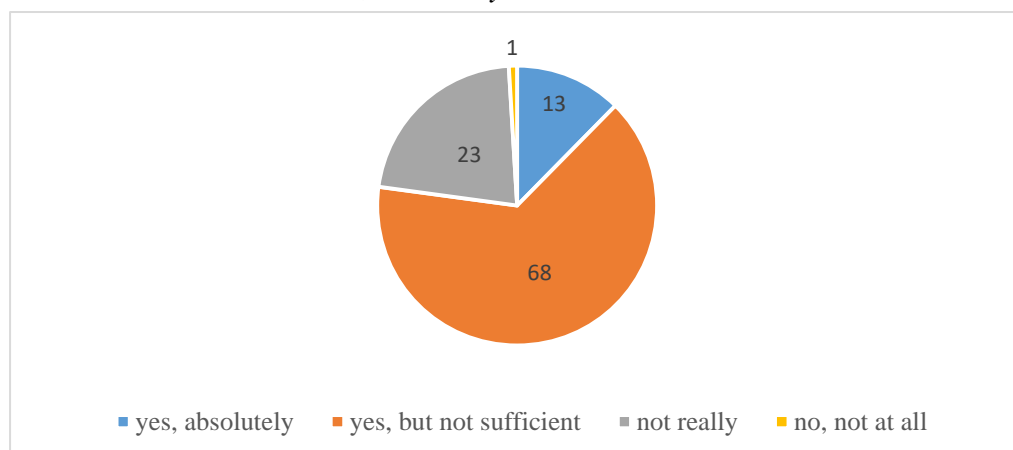
\*Data source: data processed by the author based on data collected through questionnaires distributed to students.

\*N- is the number of students who chose that option; % represents the percentage of students who opted for that answer from the total of the sample (15, respectively 105 in the TOTAL column).

For 64.76% of the students, interaction depended on the course while 21.91% did not really have interaction. 12.38% absolutely had interaction and 0.95% did not have at all.

Traditional learning is real-time or synchronous learning, while e-Learning can be both synchronous and asynchronous so one of the biggest challenges of online learning is, unfortunately, the common lack of guidance, communication, and support from teachers. That's why teachers have to make themselves available via email and even direct messaging apps to answer all of the questions and concerns in real-time. Engaging and motivating students in the process of teaching is a difficult but necessary aspect. Some disciplines provide the opportunity to engage and motivate students, but when a discipline like skiing is taught online without practicing on the slope, this make students believe that their effort will lead to learning only in theory not in practice.

**Figure 5.** Have the Teachers provided you with the Necessary Learning Materials – Power Point Presentations, Course Syllabus etc.?



\*Data source: data processed by the author based on data collected through questionnaires distributed to students.

Because learners have different learning styles or a combination of styles, online teachers should design course materials in a way to answer all the students' needs.

The responses, illustrated in Figure 5, show a desire to have increased access to class/lecture notes and slides. 68 of students expressed the idea of not having sufficient learning material, 23 answered they were not really provided with learning materials, 13 absolutely had sufficient learning material and 1 did not get any materials at all.

In Figure 5, we presented the distribution of the 105 students analyzed according to the answer to the tenth question, Q10.

**Table 6.** Have Teachers assigned you Homework/Tasks during Online Teaching?

Academic specialization	Answers								Total
	Yes, absolutely		Yes, but not sufficient		Not really		No, not at all		
	N	%	N	%	N	%	N	%	
Pharmacy Assistant I	15	100%	0	0%	0	0%	0	0%	15
Pharmacy Assistant III	15	100%	0	0%	0	0%	0	0%	15
Nursing I	15	100%	0	0%	0	0%	0	0%	15
Physical education and sport II	15	100%	0	0%	0	0%	0	0%	15
Kinesiotherapy II	12	80%	2	13.33%	1	6.67%	0	0%	15
Midwives I	15	100%	0	0%	0	0%	0	0%	15
Midwives IV	15	100%	0	0%	0	0%	0	0%	15
<b>Total</b>	<b>102</b>	<b>97.14%</b>	<b>2</b>	<b>1.91%</b>	<b>1</b>	<b>0.95%</b>	<b>0</b>	<b>0%</b>	<b>105</b>

\*Data source: data processed by the author based on data collected through questionnaires distributed to students.

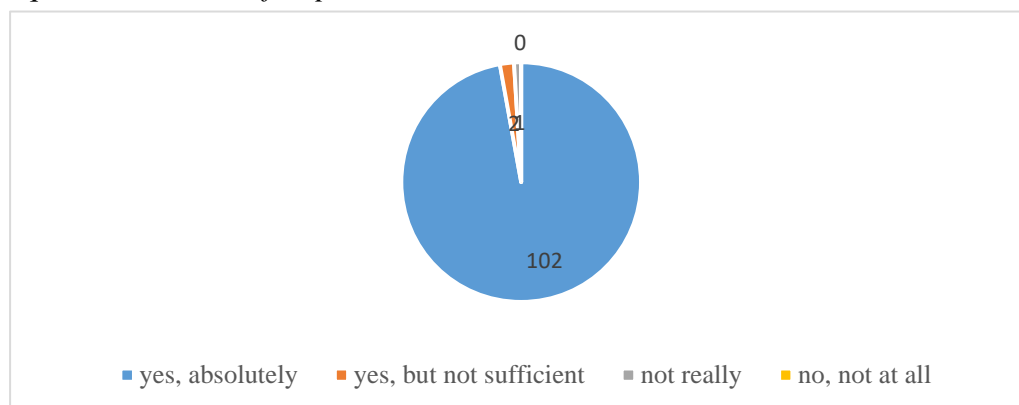
\*N- is the number of students who chose that option; % represents the percentage of students who opted for that answer from the total of the sample (15, respectively 105 in the TOTAL column).

Homework remains as important as in traditional teaching because it helps students to retain information taught by the teacher, develops study habits and

independent learning and bridges the gap between university and home. According to our survey, 97.14% of respondents were given homework, 1.91% were given homework but not sufficient and 0.95% did not really have homework to do.

In Table 6, we presented the distribution of the 105 students analyzed according to the answer to the eleventh question, Q11.

**Figure 6.** *Have you achieved the Same Learning Outcomes that are at Least Equivalent to those of In-person Courses?*



\*Data source: data processed by the author based on data collected through questionnaires distributed to students

The analysis of data from Figure 6 shows that 102 of respondents considered that they had the same learning outcomes, 2 thought they had outcomes, but not sufficient and 1 considered he did not really have the same outcomes. In Figure 6, we presented the distribution of the 105 students analyzed according to the answer to the twelfth question, Q12.

**Table 7.** *Have you had more Resources (Power Point Presentation, Course Syllabus, Visual and Audio Material) when teaching Online compared to Traditional Teaching?*

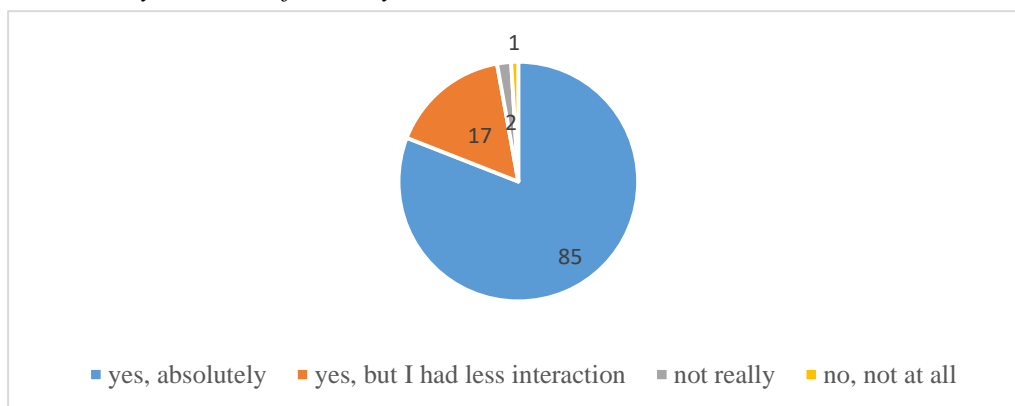
Academic specialization	Answers								Total
	Yes, absolutely		Yes, but it depended on the course		Not really		No, not at all		
	N	%	N	%	N	%	N	%	
Pharmacy Assistant I	8	53.33%	6	40%	1	6.67%	0	0%	15
Pharmacy Assistant III	4	26.67%	7	46.67%	4	26.66%	0	0%	15
Nursing I	6	40%	8	53.33%	1	6.67%	0	0%	15
Physical education and sport II	4	26.67%	4	26.66%	7	46.67%	0	0%	15
Kinesiotherapy II	6	40%	7	46.67%	2	13.33%	0	0%	15
Midwives I	5	33.33%	9	60%	1	6.67%	0	0%	15
Midwives IV	0	0%	15	100%	0	0%	0	0%	15
<b>Total</b>	<b>33</b>	<b>31.43%</b>	<b>56</b>	<b>53.33%</b>	<b>16</b>	<b>15.24%</b>	<b>0</b>	<b>0%</b>	<b>105</b>

\*Data source: data processed by the author based on data collected through questionnaires distributed to students.

\*N- is the number of students who chose that option; % represents the percentage of students who opted for that answer from the total of the sample (15, respectively 105 in the TOTAL column).

Table 7 shows that 31.43% of students had more resources in the online environment than in face-to-face, 53.33% answered that it depended on the course and 15.24% did not really have access to more resources. 53.33% of Pharmacy Assistant students absolutely had more resources and 46.67% of Physical education and sport students did not really have. 100% of Midwives students had absolutely more resources in the online environment but it depended on the course.

**Figure 7.** Has it been Convenient to you that you could Access your Online Courses any Time and from any Place?



\*Data source: data processed by the author based on data collected through questionnaires distributed to students.

Figure 7 shows that for 85 of respondents it was convenient to access the online courses any time and from any place while 17 students considered the same but with less interaction than face-to-face. For 2 students, it was not really convenient to access the online courses any time and from anywhere and for 1 student is was not at all convenient. Nursing students from the 1<sup>st</sup> year of study are the most enthusiastic about accessing courses from anywhere followed by Midwives and Pharmacy Assistants students in the 1<sup>st</sup> year of study.

**Table 8.** Has it been easy for you to use the Remote Learning Tools: MS Teams, Zoom, UCB platform etc.?

Academic specialization	Answers								Total
	Yes, absolutely		Yes, but with someone else's help		Not really		No, not at all		
	N	%	N	%	N	%	N	%	
Pharmacy Assistant I	10	66.67%	3	20%	2	13.33%	0	0%	15
Pharmacy Assistant III	15	100%	0	0%	0	0%	0	0%	15
Nursing I	5	33.33%	10	66.67%	0	0%	0	0%	15
Physical education and sport II	9	60%	6	40%	0	0%	0	0%	15
Kinesiotherapy II	9	60%	3	20%	3	20%	0	0%	15
Midwives I	13	86.67%	2	13.33%	0	0%	0	0%	15
Midwives IV	14	93.33%	0	0%	0	0%	1	6.67%	15
<b>Total</b>	<b>75</b>	<b>71.43%</b>	<b>24</b>	<b>22.86%</b>	<b>5</b>	<b>4.76%</b>	<b>1</b>	<b>0.95%</b>	<b>105</b>

\*Data source: data processed by the author based on data collected through questionnaires distributed to students.

\*N- is the number of students who chose that option; % represents the percentage of students who opted for that answer from the total of the sample (15, respectively 105 in the TOTAL column).

The analysis of data from Table 8 shows that 71.43% of respondents easily used the remote learning tools, 22.86% could use them with someone else's help while for 4.76% it was not really easy to use followed by 0.95% for whom it wasn't easy at all. Pharmacy Assistant students from the 3<sup>rd</sup> year of study did not have any problems using the remote learning tools, followed by the 4<sup>th</sup> year Midwives students with 93.33%. Most of the population of the world in general, and the learner community in particular, access the internet many times a day to look for information, establish communication or simply for entertainment. Since almost all of this content is available in English, some degree of facility with technology and language is already prevalent amongst students (Manssour 2021).

Garrison talks about three types of presence: social presence, cognitive presence and teaching presence. He defines social presence as "largely responsible for setting the academic climate and is defined by three overlapping components—interpersonal/affective communication, open communication, and sustained group cohesion." (Garrison 2017, p. 38).

Cognitive presence means "facilitating the analysis, construction and confirmation of meaning and understanding within a community of learners through sustained reflection and discourse." (Garrison 2017, p. 50).

Teaching presence is defined as performing "an essential role in identifying relevant societal knowledge, creating learning experiences that facilitate reflection and discourse, and diagnosing learning outcomes". (Garrison 2017, p. 70).

## Discussion

As the results of our survey showed, this transition from paper to paperless environment suggests that most of the students enjoyed online learning and, in general, they have access to modern resources such as laptops, smartphones, Wi-Fi routers. Consequently, students preferred smartphones for communication because in this way they had easily access to the Internet. Most students did not have laptops so taking part in courses on a smartphone was not so convenient especially when writing and uploading homework. Reddy et al. (2022), who did a research on Pacific students' readiness and perception to use mobile phones for learning in higher education, proved that a significantly high percentage of the Pacific students perceived that mobile devices are a good learning and communication tool, make learning more engaging, and facilitate self-paced and self-directed learning and they viewed m-learning as an effective innovative tool for education. So, online learning, as a fairly new way of learning, provides a multitude of new opportunities but sometimes presents difficulties because of poor Internet connection, unclear instructions, lack of communication, course quality and presentation etc.

Thus, this remains the burden of the Romanian universities to provide updated online platforms for successful e-learning because 71.43% of the respondents sometimes had technical problems. Consequently, the findings indicate that the online platform Microsoft Teams needs to be supplemented by other online software and social media sites. The results of the study are consistent with the

findings of Rana et al. (2014) who analyzed students' challenges to access Mukuba University website. Twenty-six out of thirty students claimed that the Mukuba website was usually down on weekend and fifteen out of thirty lecturers had the similar challenge.

We also found that the relative effects of online learning varied across academic subject areas. 68 of students expressed the idea of not having sufficient learning material, 23 answered they were not really provided with learning materials, 13 absolutely had sufficient learning material and 1 did not get any materials at all. Our results show that there is a need to improve the quality of all online courses to ensure that their learning outcomes are equal to those of face-to-face courses, regardless of the academic course. Such an improvement strategy would require substantial new investments in course design, instructor support, and course evaluations.

Overall, our findings indicate that 78.10% of the 105 students consider their experience with online learning as a good one and are in line with Neema and Alfred (2014) who concluded that e-learning impacted positively on students' academic performance. 102 of respondents considered that they had the same learning outcomes in the online environment.

Our survey shows that 71.43% of respondents easily used the remote learning tools, 22.86% could use them with someone else's help, for 4.76% it was not really easy and for 0.95% it was not easy at all. Pharmacy Assistant students from the 3<sup>rd</sup> year of study did not have any problems using the remote learning tools, followed by the 4<sup>th</sup> year Midwives students with 93.33%.

The study led us to note that online teaching was effective for most students from "Constantin Brancusi" University of Tg-Jiu and their experience with the online teaching was good.

## **Conclusion**

Focusing on students' experiences, the study investigated the effectiveness of online learning using e-learning platforms. It was found that students liked the online experience but they would like to change a few things, however, most participants agreed that online classes were generally of benefit to students, and most viewed the Internet as a rich source of information and authentic materials having offered more resources in the online environment than in face-to-face.

Online learning in the 21st century does offer learners a better way and allows both teachers and students to achieve learning outcomes more effectively and efficiently, but new paths, solutions and innovations need to be found by universities in order to better support online learning and teaching. The effectiveness of e-learning is determined, according to Tham and Werner (2005, p. 15), by three elements: "institution—which refers to teachers knowing how to use the tools in order to enhance learning, how to interact with students and create a comfortable learning environment and how to creatively bring students closer and capture their attention, students—that may feel isolated because of the absence of



physical colleagues, a case in which teachers should know how to establish connections and relationships with them, and technology”.

The paper offers a perspective regarding students’ perceptions on the educational process in a period of sudden changes in the Romanian universities. Their perception regarding online learning was a positive one despite the fact that 71.43% of the respondents sometimes had technical problems.

We must understand that by creating a high performance digital educational environment and by taking technology seriously this could be a solution for how educational institutions will support learning in the future.

Furthermore, this survey can also be done taking into account the student perspective for each course taught online comparing the theoretical ones to the practical ones because the latter require a higher degree of hands-on demonstration, practice and immediate feedback.

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