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Master Students' Perceptions of Online Teaching and Learning during the Pandemic

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Abstract: During the pandemic, the traditional education system shifted to online teaching and learning. In the time that has passed since the beginning of the pandemic, important changes were recorded in the way that education is thought and delivered, at any level of education. Starting with March 2020, when schools were physically closed, online learning became the only way to continue the educational process, although teachers, parents, students, institutions, and officials from the educational system, as well as decision-makers, were not prepared for such a big change. With advantages and limitations, this substitute for traditional education represented a major challenge and opened up multiple opportunities for transforming education, rethinking pedagogical paradigms in line with changes in education-related fields, and transforming the school ethos into a space for inclusion, promoting values, for access to quality education. This research aims to analyze the perceptions of master students as regard online teaching in two East-European countries: Lithuania and Romania. The focus is on the suitability of online teaching, feedback, and support. The provided feedback illustrates that the online teaching/learning process is strongly influenced by a series of variables related to the teachers' competencies, their ability to introduce proper didactic methods and adapt the content, their capacity to motivate students, to raise the students' attention, and to stimulate the students' involvement. More, providing real support, offering fast feedback, and strongly mediating teacher-student communication represent important issues for creating a successful format for online education.

Keywords: *COVID19 pandemic, exploratory study, online teaching, students' support, students' feedback.*

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1. Introduction

The pandemic generated by COVID-19 challenged the education system to find ways to face the emergency. The shift from traditional to online teaching and learning is not easy and requires effort to adapt the teaching methods and materials as well as the communication, feedback, and support provided to students.

The teacher represents the pillar of online teaching. In this respect, the interest in managing online educational demarches and teachers' competencies are important and sensible components of qualitative online education (Priyadarshani & Jesuiya, 2021).

The teacher must respect the students' diversity and individuality (their learning skills and styles), try to motivate them by creating a real-life learning context and avoiding overloading with information, facilitating interactions between students, and encouraging reflection. It is also necessary for teachers to promote students' participation and cooperation, stimulate active learning, and offer prompt and proper feedback, providing time on solving various tasks and stipulating the expectations in a clear manner (Sadiku et al., 2018).

In this new context, the teacher's personality (personal qualities, psycho-pedagogical competencies, pedagogical values, and beliefs), but also macro and institutional factors play an important role in online education, in teacher's perception (McCarthy et al., 2021). Institutional support represents an important factor for higher education teachers, when the transition to *Online Teaching and Learning* (*OTL*) is started (Naylor & Nyanjom, 2020; Scherer et al., 2021).

Several pieces of research conducted during the pandemic period have been focused on identifying the perception of students or teachers regarding online teaching and learning (Martin et al., 2019; Kulal & Nayak, 2020; Priyadarshani & Jesuiya, 2021; Butnaru et al., 2021; Scherer et al., 2021), on measuring the level of satisfaction of online education beneficiaries (Almusharraf et al., 2020; Nasir, 2020; Ranadewa et al., 2021), on identifying the advantages and disadvantages of online education (Butnaru et al., 2021; Coman et al., 2020; Debeş, 2021; Maatuk et al., 2021), having, in general, ascertaining-ameliorating purpose. Teachers have been constantly focused on improving their skills in online teaching and improving teaching strategies, optimizing learning factors, motivating students, advising them, and creating a teacher-student and student-student distance relationship, even improving their well-being, realizing in this way

their importance and role in the educational process which was moved to the online space.

Good teachers always learn (Murray, 2021), and in the pandemic, teachers who have found the motivation to continue, to believe that their mission goes beyond the physical space of the school, have succeeded to keep their students closer and creating an educational community, even (in many cases) in a new format - an online environment.

One of the relevant frames published in that period - "*The experience of the education system during the COVID-19 crisis*" (2020), prepared by the Romanian National Commission for UNESCO, within the Strategic Education Program 2020-2023 - specifies important aspects related to the specifics of online teaching:

- the digital teaching environment involves a more detailed design of the teaching-learning-assessment activities;
- the teacher assumes (in a great measure) the role of mediator and less that of the information holder;
- the need to reorient the teaching and learning process, from transferring information to developing abilities to do something relevant with information, is becoming more and more obvious (in this case, the focus is on skills);
- the social skills transmitted and developed in school are as important as the professional skills;
- the emotional dimension of learning is greatly diminished in the online environment, although emotion represents an important element in education, as it contributes to the mobilization of students' cognitive resources and allows them to cope with special stress: to learn.

The proposed research aims to analyze the master students' perceptions concerning the online activities strongly related to teaching, communication, and support, as well as the degree to which these are associated with the perceptions of the effectiveness and efficiency of online activities. Two samples have been collected - one from Lithuania (N=64) and the second from Romania (N=57).

2. Theoretical Background

The success of online teaching and learning depends on the availability of teachers to adapt to the online format by maximizing the teaching methods and capitalizing on the online learning advantages (Yulia, 2020; Nasr, 2020). This requires more than just a digitalization of teaching materials and presentations. First of all, teachers should find new ways to

make online activities attractive and motivate students to actively participate. Second, they should take into account that students need more communication, feedback, and support (Butnaru et al., 2021; Gaber et al., 2020). Paudel (2021) mentioned that online teaching and learning become effective when teachers and learners are engaged in meaningful interaction.

The physical application support is offered by a series of e-platforms that are designed (mainly) on the same usability principles. For example, Moodle - one of the most used *Course Management System* (*CMS*) -, is seen by students as a standard format, easy to be accessed and used, allowing them to transfer their skills easier to other e-learning solutions oriented on different educational web environments (Gorghiu et al., 2009).

Mahmood (2020) discussed the instructional strategies for online teaching during the pandemic based on a case study of remote education in Pakistani universities. Here, it is mentioned that teachers should pay attention to their voice (speaking slowly), share class materials, and promote flexible teaching and assessment methods.

Gaber et al. (2020) proposed sessions of online-based learning as an easy to make online activities more interactive. Their method is based on providing reading material, testing the individual readiness assurance, and then testing the team readiness assurance in breakout rooms. Teachers are providing immediate feedback to all students, then individual support as needed. The authors reported both a high attendance rate of 96.5% and a high satisfaction rate of 85%. In a similar vein, Yulia (2020) advocated for using a mix of learning tools to enhance students' engagement and providing a supportive learning environment based on a forum of discussion, peer-to-peer support, group mentoring, and ongoing feedback.

Jin et al. (2021) used a Push-Pop-Moring model (Lee, 1966; Moon, 1995) to analyze the migration of the traditional educational system to the online format. The push factors were related to learning convenience, security risks, and service quality, and the pull factors to ease of use, usefulness, instructor attitudes, and the mooring effect of a habit. They found that both push and pull factors had a positive influence on the migration to online education. Although habit had a negative influence - it was a small one, and the moderating effect on push and pull effects was not significant.

A study conducted in India showed that online teaching is feasible, cheap, and must be made a part of postgraduate training (Agarwal & Kaushik, 2020). Meanwhile, a study conducted in Algeria revealed the opposite position, because students have a negative perception of online learning (Blizak et al., 2020). Similar results were obtained in the United

Kingdom. According to Peimani and Kamalipour (2021), most respondents indicated that attending live online lectures was more helpful than watching pre-recorded lectures. A study conducted in Poland in which medical students participated illustrated that e-learning was considered less effective than face-to-face learning in terms of increasing skills and social competencies (Baczek et al., 2021).

On a whole, the pandemic represents a new and unexpected context, with exceptional circumstances in which teachers' concerns have been focused on identifying and using the most appropriate teaching methods; thus, the knowledge of the variables that influence the quality of online education and the understanding of students' perceptions, needs, and difficulties they faced, create important educational implications, with teachers in the first glance: the had to rethink the principles of design and continuous improvement of their work (Stevanović et al., 2021).

3. Method

3.1. Evaluation Instrument

This research is focusing on the quality of online teaching and students' support. The study aims at assessing the perception of master students as regards online teaching and learning during the pandemic. An evaluation instrument that comprises eight items is presented in Table 1.

Table 1. Variables

Item	Statement
QT1	Teaching methods are suitable for online learning
QT2	The content is adapted to online presentation
QT3	Students' assignments received are adapted to online learning
QS1	The feedback provided by teachers in the online activities is useful
QS2	The students' support is sufficient
QS3	The communication with the teacher is good
E1	Online activities enable me to accurately complete my work
E2	Online activities enable me to efficiently complete my work

The first three items refer to the suitability of methods, content, and students' assignments to the online format. The next three items refer to the feedback, students' support, and communication with the teacher. The last items refer to the effectiveness and efficiency of online learning. The definitions of *effectiveness* (completititude and accuracy in achieving task goals)

and *efficiency* (resources needed to achieve the task goals) are borrowed from the ISO standard (ISO/IEC, 2016).

Students have been also asked to answer two open-ended questions: "Please comment on the quality of distant teaching/learning" and "What do you think is most important for the good quality of distance teaching/learning?"

The method is based on the analysis of the correlation of the six items with the effectiveness and efficiency of online learning. The analysis is complemented with excerpts from the answers to open-ended questions.

3.2. Samples

The evaluation instrument has been administrated to master students from Lithuania and Romania. Students have been asked to answer several general questions, and then evaluate the statements on a 5-point Likert scale. The respondents' participation in the study was voluntary, they were informed about the main objectives of the study.

The Lithuanian sample consists of 64 master students (3 males - 4.7%, 61 females - 95.3 %); by study year - 36 (56.2%) first study year and 28 (43.8%) second study year. Practically all master students represent the field of social sciences: educology (n = 10, 15.6%), educational management (n = 16, 25.0%), pedagogy (n = 13, 20.3%), social pedagogy (n = 13, 20.3%), pedagogical psychology (n = 3, 4.7%), and social work (n = 9, 14.1%).

The Romanian sample consists of 57 master students (2 males - 3.5%, 55 females - 96.5%) - all of the second study year, being involved in the second level of psycho-pedagogical studies at the Teacher Training Department, Valahia University of Targoviste. The master students represent the following areas of study: education (n = 41, 71.93%), mathematics, science and engineering (n = 9, 15.79%), geography (n = 2, 3.51%), economics (n = 2, 3.51%), journalism (n = 2, 3.51%), and languages (n = 1, 1.75%).

4. Results and Discussion

4.1. Lithuanian Sample

The descriptives (mean and standard deviation) and the Pearson correlation coefficients are presented in Table 2. The mean values are relatively high, in the range of 4.13 to 4.53. The highest mean values have the items related to the suitability of teaching to the online format and the usefulness of feedback provided by the teacher. It is clear that there is a positive evaluation of studies, which is expressed through compliance with

expectations and improving quality. The respondents say that this way of studying is convenient. Convenience is expressed in three main components: study flexibility, time management, and practicality.

Table 2. Descriptives and correlation with effectiveness and efficiency (*N*=64)

Item	QT1	QT2	QT3	QS1	QS2	QS3	E1	E2
Mean	4.44	4.42	4.53	4.52	4.13	4.38	4.44	4.45
SD	0.61	0.61	0.59	0.64	0.83	0.60	0.71	0.62
Corr with E1	0.32	0.52	0.69	0.51	0.34	0.32		
Corr with E2	0.35	0.45	0.68	0.52	0.42	0.35		

The correlation coefficient is varying between .32 and .69, showing a small to high correlation between online teaching and students' support and feedback on the effectiveness and efficiency of online learning. The highest correlated item is the suitability of assignments. The suitability of online presentations and the usefulness of the feedback are moderately correlated with the effectiveness and efficiency of online activities. Respondents also noted that such studies are useful. Usefulness is expressed in two essential components: the fluency of studying ("I like this learning option…", "… a very suitable way to study online for master studies…", "…the information conveyed is clear, informative…", "… it ensures better attendance at lectures…" etc.) and offering a diversity of methods and activities ("… the feedback received is useful…", "… independent learning is encouraged…", "… good conditions are created for consultations…" etc.).

From the point of view of the respondents, the smoothness of study organization is one of the most important things for good distance teaching/learning (studying) quality. This is expressed through the three most significant components: realization of the study process ("… it is important to often involve students in discussions…", "… the most important thing is to interest, involve students, to motivate them…", "… quality presentation of lecture material…"), time planning ("… the possibility to combine work and studies…", "… possibility to plan your time optimally…"), and study flexibility ("… suitable schedule of activities…", "… flexibility of online activities…", "… enough time to complete tasks…").

The professionalism of the lecturers is also quite significant. Two important components stand out here: sufficient digital competence ("… lecturers' ability to manage various online platforms…", "… use of

interactive/innovative tools…", "… lecturers' readiness to work online…") and pedagogical competence ("… lecturers' competence in delivering lectures…", "… attitude to the student as a conscious and responsible person…").

4.2. Romanian Sample

The descriptives (mean and standard deviation) and the Pearson correlation coefficient are presented in Table 3. The mean values for the variables related to online teaching and students' support are high, in the range of 4.25 to 4.49.

Table 3. Descriptives and correlation with effectiveness and efficiency (*N*=57)

Item	QT1	QT2	QT3	QS1	QS2	QS3	E1	E2
Mean	4.25	4.30	4.30	4.49	4.35	4.37	4.21	4.23
SD	0.87	0.94	0.84	0.80	0.81	0.86	0.86	0.89
Corr with E1	0.51	0.52	0.38	0.47	0.58	0.52		
Corr with E2	0.46	0.34	0.31	0.39	0.43	0.43		

These results illustrate that students appreciate the feedback provided by teachers in the online activities as useful, the communication with the teacher as good, and the students' support as sufficient.

The correlation coefficient is varying between .31 and .58, showing a small to moderate association with the effectiveness and efficiency of online learning. For all items, the correlation with the effectiveness of online activities is higher than the correlation with the efficiency of online activities.

The analysis of the answers to the open-ended questions sheds light on the quality of online activities as perceived by students. Among the competencies of the teacher who contributed to the quality of the online education, the students mentioned: the open and receptive attitude of the teacher, the educational climate, adaptation of course materials - especially the contents to the specifics of online teaching, appropriate methods used in teaching, teachers' digital skills, teacher's personality, and charisma, relevant explanations and clear examples, support and prompt feedback provided.

Students underlined the importance of the teaching quality: "… during the period when we experienced this type of distance teaching/learning, its quality was of a high level..."; "… it was an interesting experience, I witnessed the way teachers gradually adapted/improved the activities for online teaching…"; "… many applications and educational resources have been exploited like they have not been used before, and are

very effective..."; "… distance learning has successfully replaced face-to-face teaching, the resources provided by teachers have been adequate and sufficient in completing homework and preparing for exams; the proposed platforms (Teams and Moodle) are accessible and easy to use…"

Students appreciated the support and feedback from teachers: "… the most important aspect that ensures a good quality of distance learning is the teacher's attitude towards students..."; "… the quality of teaching/learning depends on the involvement and motivation of teachers, but also of students..."; "… distance teaching/learning has lived up to expectations, we have benefited from good teachers, interesting courses and clear explanations..."

Some responses argued that online education was effective in the pandemic context, with some limitations compared to traditional teaching/learning: "… this period was very interesting for me; I felt like the teachers tried to adapt all the activities for online development, and the results were very good. However, it is something that complements the traditional system, which cannot fully replace it..."; "… it was a good measure in a pandemic context, but not effective at a whole..."; "… the instructive-educational process carried out at distance facilitates the participation of a larger number of students; however, from the qualitative point of view, I consider that in distance learning, the educational act suffers…".

4.3. Comparison

The comparison between the two samples is presented in Figure 1. Lithuanian master students have a higher perception of online teaching than Romanian master students. As regards students' support, Lithuanian students have a lower perception of the students' support. The usefulness of feedback and the communication with the teacher have been scored similarly in both samples. As regards the effectiveness and efficiency of online learning, the Lithuanian students scored higher.

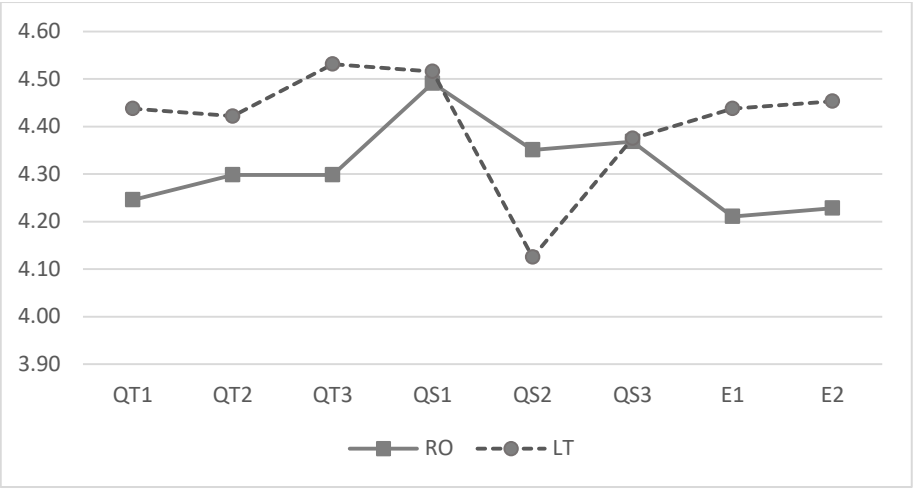


Figure 1. Mean values comparison

Although except for two items (QS1 - usefulness of feedback and QS3 - communication with the teachers) the mean values are different, a one-way ANOVA (1, 119, 120) shows that only for the item QT3 (students' assignments adapted to online learning) the difference has a marginal statistical significance ($F = 3.148$, $p = .079$).

4.4. Discussion

This exploratory study contributes to a better understanding of the perception of master students regarding the efficiency and effectiveness of online activities.

The success of online teaching and learning depends on the availability and ability of teachers to adapt the content and teaching methods to online teaching, capitalizing on its benefits. This requires the rethinking of activities, careful design, and attention to the needs of students. Also, teachers need to find ways to make online activities attractive and motivate students to actively participate, communicate, provide feedback and offer support to students (Butnaru et al., 2021; Gaber et al., 2020).

Analyzing the Romanian students' answers, it can be observed a positive perception of the teaching/learning online process. The proposed teaching methods were suitable for online learning, the content was adapted to online presentation, the received students' assignments were adapted to online learning, the feedback provided by teachers in the online activities was useful, the students' support was sufficient and the communication with

teachers was considered as good. Online activities enabled students to accurately complete their work and efficiently completed their work.

Corroborating the results summarized above with the answers obtained to the open-ended questions, the students' perceptions of online teaching/learning are positive. The findings of the study (both qualitative and quantitative) are important milestones in conducting a quality educational process in the online format. Post-pandemic education has to include elements that proved their effectiveness during this period and teachers should build educational experiences by integrating technology, capitalizing on creativity, and new pedagogical strategies.

Coming back to the analysis of both samples, the scores are relatively high showing a strong positive perception of the teaching quality, students' support and feedback, and the online learning effectiveness and efficiency. At first sight, this may seem surprising, given a series of disadvantages of online education (Butnaru et al., 2021; Coman et al., 2020; Debeş, 2021; Lamanauskas & Makarskaite-Petkeviciene, 2021). Nevertheless, as several studies showed, there are clear benefits of online education (Butnaru et al., 2021; Coman et al., 2020; Debeş, 2021; Maatuk et al., 2021; Manea et al., 2021). Apart from the reduced security risks during the pandemic, learning from home is comfortable, saves money, and is convenient for master students that already have a job. After more than two years of the pandemic, it seems that habits are changing and students are not so enthusiastic to return to the traditional system.

Switching to distance learning and mastering a new form of communication is not so difficult, but creating a new relationship, trust, and a new way of independence is not easy. There are various challenges that need to be overcome, such as being able to use all the open resources. On the other hand, some reasonable doubts about the quality of distance learning remain (Buzatu et al., 2020). The conducted comparative study between Lithuanian and Romanian master students generally showed a positive evaluation of online studies. This general position is also expressed by other studies (Binshehab & Ingle, 2021; Maheshwari, 2021).

The pandemic taught both students and lecturers to quickly adapt to any conditions and allowed them to communicate and cooperate more closely. On the other hand, it is understood that distance studies are one of the methods/formats of university studies, when teaching and learning take place at different times in different places, and the use of ICT creates an appropriate learning environment and ensures the progress of teaching/learning processes. It is also clear that not all study programs can

be conducted remotely. It is likely that there are differences in distance learning for different degrees/levels and study programs.

This study has some limitations: both samples are small and gender unbalanced. Despite the commonalities, the context of postgraduate university studies differs in both countries, which possibly influences the respondents' positions. On the other hand, online studies were conditioned not only by the Covid-19 pandemic but also by the rapid development of information technologies and the modernization trends in this field. Due to the extreme, quarantine conditions, problems have arisen in the organization of the distance studies process, these problems are related to the performance of laboratory and practical work, knowledge assessment, and the application of technologies for conducting distance studies. Further and more detailed research could be focused on analyzing these issues.

5. Conclusions and Implications

This research aims to analyze the perceptions of master students as regard online teaching in Lithuania and Romania. The focus is on the suitability of online teaching, feedback, and support.

The results of the research show that in the perception of master students, a quality online teaching/learning process is dependent on several factors related to the teacher's competencies, his/her ability to adapt methods and rethink the contents, motivate students, to capture attention and facilitate students' involvement. Also, the provided support, prompt feedback, and teacher-student communication are elements that can create a favorable context for online education. The analyzed answers show that students appreciate the effort made by teachers in this context, but the online environment does not capitalize on all the formative-educational values of traditional education.

The results of the study have educational implications. Some useful recommendations for teachers can be identified to increase the quality of the educational process in the online environment. As mentioned also by Priyadarshani & Jesuiya (2021), teachers need to be constantly concerned with their development, to participate in training and learning projects for the development of different categories of skills. The study also showed that online learning can play a more important role in future education.

During the pandemic, more than one study was conducted on how higher education is organized during pandemic conditions, but there is still a lack of analysis of how students of various fields of the study feel about distance learning, and little attention has been paid to the quality of students'

academic achievements and practicum performance. Due to the COVID-19 pandemic, there is a rapid digital transformation of studies and workplaces, resulting in organizations and higher education institutions being forced to change their work and learning culture. More detailed research should focus on revealing the social and technical implications of the digital transformation of studies and workplaces.

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