

## IMPACT OF ONLINE EDUCATION ON ECONOMIC STUDENTS' PROFESSIONAL TRAINING IN THE CONTEXT OF THE COVID-19 PANDEMIC

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**Abstract:** Network communication and Internet have expanded the way in which education can be delivered to students. In the context of the Covid-19 pandemic, e-learning represents a more and more important concern of all education providers and an inevitable direction for the current context in Higher Education. This study investigates the impact of online education both on students' professional training and on social relationships, on the professor-student interaction in the context of the Covid-19 pandemic. The empirical investigation was conducted through a questionnaire-based survey administered to students in the European Dimension of the Organization's Management (DEMO) master's program, who were selected to participate in this study. The survey took into account the current context of the Covid-19 pandemic, as well as the influences that this medical crisis had on students' professional training and on the professor-student relationship. The final part of this scientific paper contains the conclusions drawn from the analysis performed, as well as the authors' interpretations and views.

**Keywords:** e-learning, higher economic education, students, Covid-19 pandemic

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## 1. Introduction

The challenges generated by the current medical crisis have imposed major changes in the way educational activities are carried out in higher education through the use of digital technologies (Zimmerman, 2020). Until recently, it was difficult to imagine a world where digital technologies will be, at least for a while, the only way to achieve the process of teaching, learning and assessment in the academic system.

Today, the latest technologies offer a wide range of applications which allow the formation of an interactive learning environment separate from temporal and spatial constraints. This situation is going to lead to a major technology-led remaking of higher education (Krishnamurthy, S., 2020). It is about a new blend of resources, interactivity, performance support and structured learning activities (Masie, E., 2006). At the same time, the accessibility and variety of Web applications greatly simplify the access to learning resources, without the need for a physical presence in a classroom. This system emphasizes learner independence and places the responsibility for learning on the learner.

More than ever, in the current context, the challenge of rethinking the education system is a priority on the public agenda. We are approaching a revolution in education, and professors can become only virtual identities for their students. However, is this a good thing? Opinions are divided. Starting from this issue that generates extensive and controversial public discussions, the following question arises: after overcoming the current medical crisis, will university education and social interaction between professors and students be as we knew them or they will be abandoned in favour of knowledge transfer and training professional skills predominantly on online learning platforms? The results of our investigation do not provide the answer to this question, but they may be a starting point for further in-

depth research on the effects of online education on students' vocational training in the context of social learning.

The purpose of this paper is to analyze the impact of online education on the professional training of students in economics and the impact on social relations, the professor-student interaction in the context of the Covid-19 pandemic. The paper is structured as follows: in the first part we summarized the main theoretical aspects of online education, the benefits and constraints of using this system for students' professional training; section two presents the research methodology; the third section presents the results of the investigation on the opinion of the students enrolled in the master's degree programme called the European Dimension of Organization Management (DEMO) on how to conduct online teaching activities and their impact on group relationships and professor-student interaction. The last section of this paper discusses the results of the study and provides the authors' reflections on the implications of online education for students' professional training.

## **2. Online education: between benefits and constraints**

Today's networking technologies provide a valuable opportunity to the practice of new teaching and learning methods. E-learning represents the content and instructional methods delivered on a computer (on CDROM, Internet or intranet) and designed to build knowledge and skills related to individuals or to organizations (Vasilescu, C., 2008, p.303). The new methods of instruction, the combination of understanding and research in instructional technology can deliver improved outcomes to individuals, institutions and society.

E-learning stimulates the ability to discover new ideas and promotes the construction of new knowledge. Online courses must emphasize the development of strong thinking skills that enable scrutiny of websites and other

data, along with research skills based on constructivist learning methods (Jonassen, D. H. et. al, p. 223). There is a considerable amount of best practices for technology implementation that can be applied to distance learning. There are three elements of learning technology that became the mainstream in the last few years (Brogan, P., 1999):

- Technical infrastructure is more and more incorporated in universities (networks, Internet connections, smart boards, video projectors, etc.);
- Learning management systems (LMSs) have been adopted at an organizational level;
- In the top educational institutions, a number of online programs at a superior level of quality grew rapidly.

The benefits of e-learning systems are extensive. Implementing online teaching and learning systems can provide a rich source of feedback and information for students and instructors. With distributed technologies, learning can take place anytime, anywhere. People anywhere will be able to take the best courses taught by the greatest teachers (Gates, B., 1995, p. 341).

Based on the researches that we carried out on the e-learning system in higher education, we have identified some of advantages and disadvantages of e-learning. Research studies show the following advantages of e-learning (Dragomir, C., Pânzaru, S., Ștefănescu, R., 2013, p. 319):

- availability of technology increases pedagogical innovation;
- students benefit from the ability to electronically store lectures;
- an environment for collaborative learning is created;
- the learner is placed at the centre of the learning process;
- rich source of feedback and information for students and instructors;

- it broadens the use of alternative textbooks while maintaining instructional quality;
- very high communication speed;
- video communication;
- real-time interaction;
- better access to multicultural knowledge;
- students can learn at their own pace;
- it fosters interactive participation of the learners via discussions and chats;
- emphasizes cognitive development;
- develops and implements best practices in support of technological solutions;
- consulting services to assist the e-learning community;
- implementation of the Educational Resource Logical Model;
- lower costs for students (no need to be physically present on campus, cost of gas).

On the other hand, regarding the weak points of the e-learning system, the research studies show that using online programmes in education has the following disadvantages:

- a need of familiarity with the online platforms for students;
- new ways of implementation and knowledge need to be discovered and experimented;
- technical requirements to access the online materials;
- technological determinism created by the delivery tool;
- quality of educational resources;
- absence of effective pedagogical strategies for online teaching;

- lack of face-to-face interaction with the teacher;
- lack of human interaction with colleges and teacher;
- lack of practical applications and explanations from the teacher;
- difficulty of concentrating-other online activities can distract the student from the online courses (Palloff, R. M., Pratt, K., 2005, p. 199).

The most important aspect that can be blamed on online education is the diminution of social interaction. Vocational learning is inextricably integrated into social learning. The group, the densest social environment in terms of interpersonal actions, is the space where social learning is most efficiently achieved. As such, the group is the most important factor of socialization, offering the individual security and possibilities to assert himself, to capitalize on his own personality (Andronic, R., 2015, p. 15). Thus, the following question arises: Does the online environment fully ensure professional training and, even more, social networking? Is the cohesion of student groups (study group, year of study) achieved and strengthened? What about the relationship with the professors? Obviously, our investigation – due to its size – will not be able to fully answer the stated questions, but it is important that it launches a topic of interest for future research and debates on changes that are already taking place and will be accentuated in the future, namely on social and, in this context, online professional learning.

### **3. Research methodology**

#### *3.1. Purpose, objectives and hypothesis of the research*

The research aimed the investigation on the opinion of the students enrolled in the master's degree programme called the European Dimension of Organization Management (DEMO) on how to conduct online teaching

activities and their impact on group relationships and professor-student interaction in the context of the Covid-19 pandemic.

*The main objective of the research* was to analyze how the educational activity carried out in the online system was perceived by the interviewed subjects.

*The specific objectives of the research* focused on: knowing the students' perception regarding the advantages and disadvantages of the online teaching activity; the student-professor relationship; students' opinion on how to carry out the teaching activities after overcoming the current medical crisis.

*The general hypothesis* we started from was that online education can and must remain a complementary form of student training, without affecting the direct professor-student relationship.

### 3.2. *Data collection*

The research was carried out between March 30 and May 30, 2020. Data collection was done through a questionnaire. This research tool was used for the easy and efficient recording of the answers and also for the operational mode of analysis and processing of the collected data. For the same reasons, the questionnaire was designed in a concentrated form to allow the collection of information relevant to the issue of interest to us. 10 closed-ended, multiple-choice questions were asked. The questionnaire was sent online to a number of 49 students enrolled in the master's programme called the European Dimension of Organization Management, Faculty of Juridical Sciences and Economic Sciences, Braşov, Spiru Haret University. 45 completed questionnaires were sent back for processing.

#### 4. Analysis of the research results

1. The first question refers to the encouragement and support that students received from their professors during their online educational activities (Fig.1). The answers received show that, for the most part, students were encouraged and supported by their professors to participate in online learning activities (YES - 94.4%; NO - 5.6%).

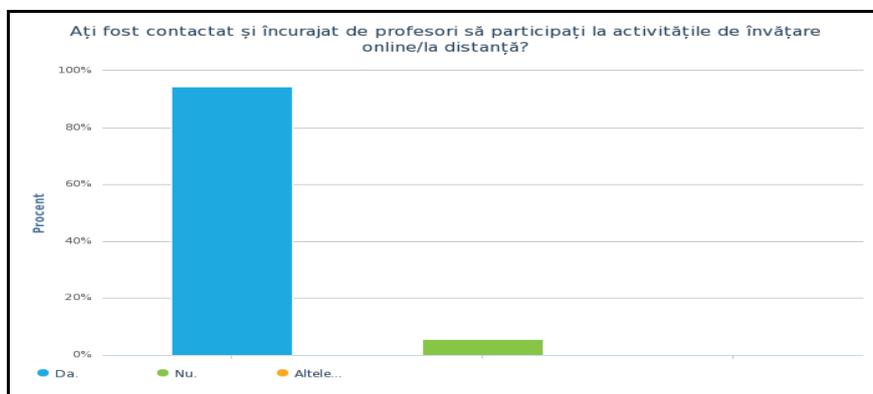


Figure 1. How students were encouraged to participate in online educational activities

2. To the question: *During this period did you manage to communicate effectively with: course coordinators; seminar coordinators; group colleagues?* the answers were distributed as follows:

- course coordinators – 32.5 %;
- seminar coordinators – 13.1 %;
- group colleagues – 54.4 %;

The answers show, as expected, the preponderance of those who indicated having had communication with their group colleagues, to the detriment of communication with teachers.

3. Regarding the type of applications used in online communication for educational activities, most respondents indicated the Google Meet platform (Fig. 2).

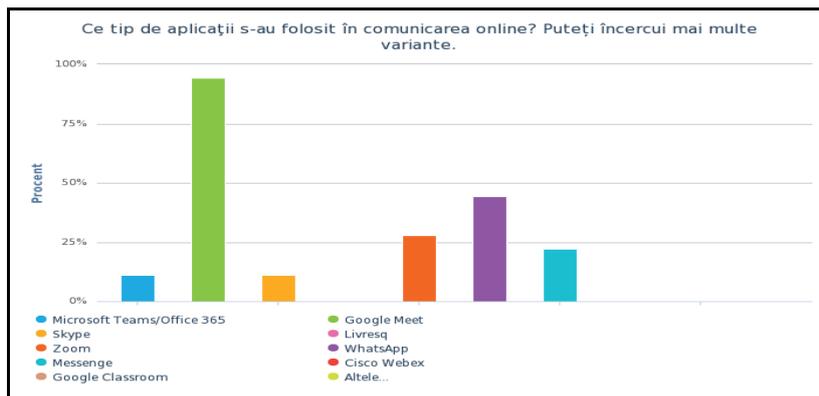


Figure 2. Computer applications used for conducting online education and professor-student communication

4. In connection with the aspects that pleasantly surprised the students while carrying out their online activities, they especially appreciated: accessibility (platforms, materials, resources); flexibility; wide range of working tools; ease of use of online tools (Fig. 3).

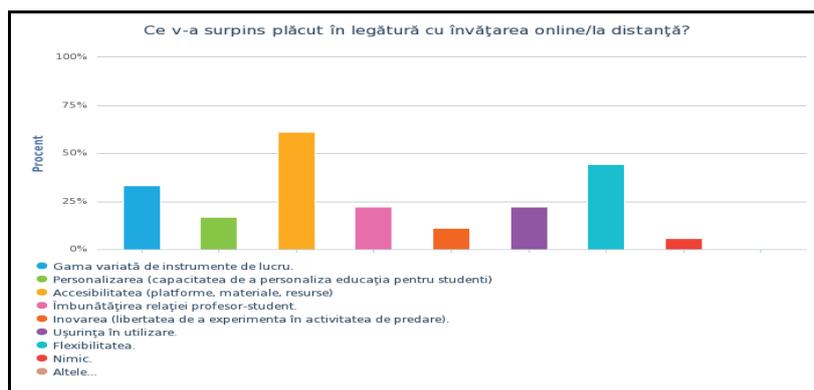


Figure 3. Students' opinions regarding the novelty, what pleasantly surprised them in the development of online education

5. The students' opinions regarding the quality and difficulty of the tasks received during the online activities (Fig. 4) are the following: attractive, useful, appropriate – 88.9 %; unattractive, inappropriate – 5.8 %; did not formulate a conclusive answer – 5.3 %.

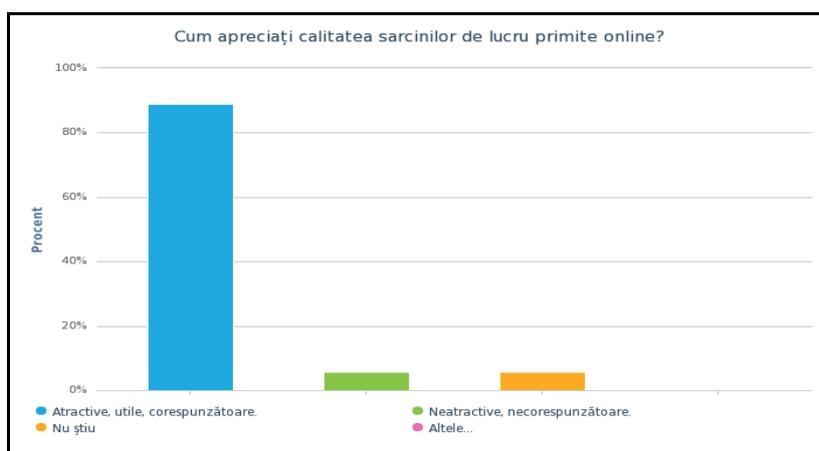


Figure 4. How the students appreciated the quality of the tasks received during the online educational activities

6. Regarding the disadvantages of carrying out online educational activities, the respondents indicated: increased workload and stress level, associated with housework; difficulties in maintaining motivation / involvement in learning; access to technology; time management and organization, etc. (Fig. 5). It should be noted that a fairly high percentage (approximately 25%) of the surveyed students mentioned that they did not encounter difficulties in the online learning process.

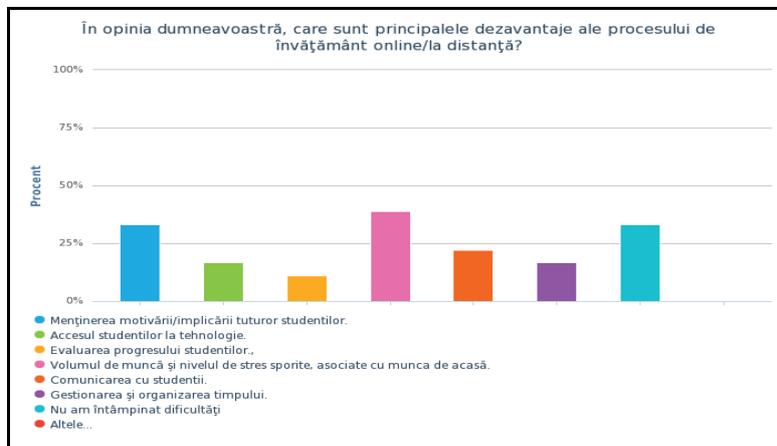


Figure 5. Disadvantages of having online educational activities

7. To the question ‘Do you think that, after overcoming the medical crisis, it would be useful for online education to remain part of our university practice?’, the vast majority of the respondents answered affirmatively (77.8%). A percentage of 16.7% of the surveyed subjects did not consider that this way of working would be beneficial (16.7%), while 5.6% were undecided (Fig. 6).

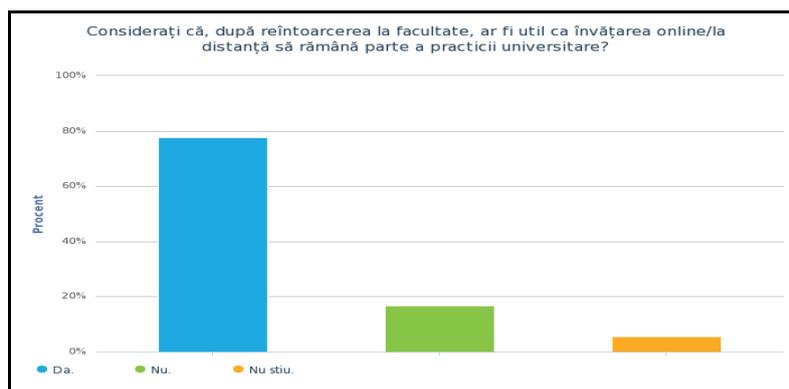


Figure 6. Opinions on how to conduct education after the return of professors and master students to the face-to-face education

8. To the question "How do you think it would be good to carry out educational activities during a university year?", the answers are as follows (Fig.7):

- only online educational activities: - 16.7 %;
- being present in the classrooms for courses and seminars – 11.1 %;
- combined application of online and classical education – 55.6 %;
- at the course coordinator's choice, depending on the specifics of the course – 16.6 %

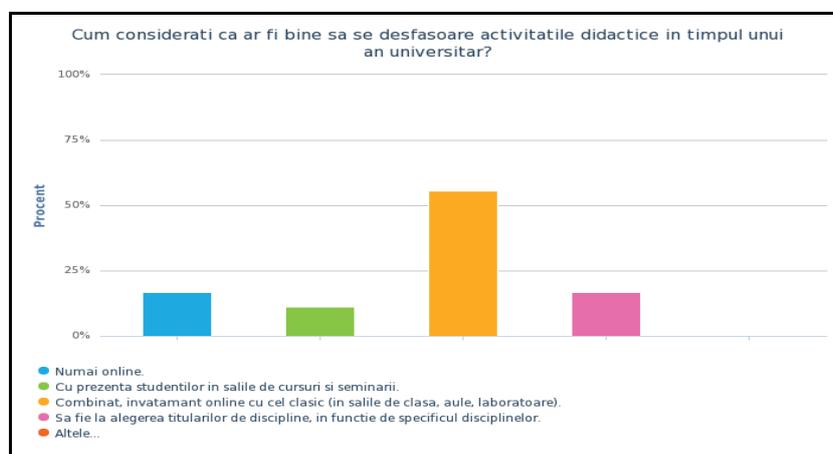


Figure 7. Considerations on future academic education: online, face-to-face or combined

9. To the question "Do you think that online learning can replace face-to-face activity in the classroom / laboratory?" most of the respondents (60.5%) answered that the online learning activity can be carried out in addition to the activities done in the classrooms. A percentage of 24.3% answered negatively, while 15.2% considered that the online learning activity could completely replace the "face-to-face" activity in the classroom / laboratory (Fig.8).

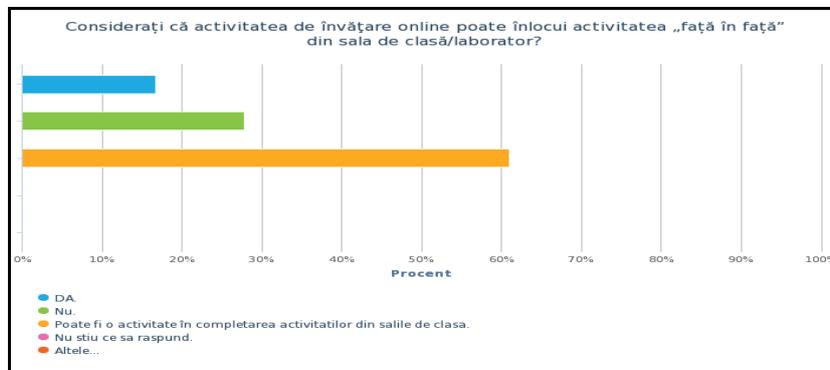


Figure 8. Interviewees' opinion on the possibility of replacing the 'face-to-face' teaching activity in the classroom / laboratory with the online one

10. In order to establish the age groups in which the interviewed subjects fall, the last question concerned this aspect (Tab.1).

Table 1. Distribution by age groups of the participants in the opinion poll

Age category (years)	Result (%)
22-30	34%
30-40	52%
40-50	14%

The analysis of the answers provided by the master students who participated in this survey confirms the working hypothesis. Online education can and must remain a complementary form of student training, without affecting the direct professor-student relationship. At the same time, online education cannot be applied to all disciplines, especially to those with a pronounced practical character – laboratory works, practical applications, etc., where knowledge is accumulated, but, moreover, practical skills needed to practice different professions are formed. The results of the questionnaire highlighted the fact that, for the most part, the professors demonstrated openness and adaptability to the new situation, encouraging and guiding

students in carrying out online activities. In addition, although students have correctly identified the disadvantages, they want to use the online educational activities to a greater extent in the future.

## **5. Conclusions**

The medical crisis generated by the Covid-19 pandemic has determined an important change in the conception of the development of teaching/learning activities in academic education. In recent months, the online teaching and learning system has been mainly used in Romanian universities, offering opportunities to create new interactive learning environments in safe conditions for teachers and students. Unfortunately, this situation continues and most universities began the new academic year exclusively online or hybrid. In this context, universities are required to initiate changes in the re-evaluation of the online education programmes and the improvement of their quality. Teachers will need to demonstrate a high degree of flexibility and adaptability in relation to the real needs of students regarding their professional training. In terms of learning technologies, we can expect to see more innovations in this area, high-performance distance learning platforms and state-of-the-art digital technologies in campuses and classrooms. From our perspective, online education should not be seen as a substitute for traditional teaching and learning methods, as it can be used together with them to achieve the best results of learning and students' professional training. The methods used for online education can add value to traditional face-to-face methods. The most important factors for success will be the quality and talent of the instructors and the excellence of the educational process. In any case, the interpersonal professor-student relationship, achieved and consolidated, to a large extent, through physical presence and direct communication, face to face, must remain an essential component in the education of the future.

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