

EDUCATIONAL COMMUNICATION DURING THE COVID-19 PANDEMIC. RESULTS OF AN EMPIRICAL STUDY AMONG UNIVERSITY STUDENTS

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Abstract: *Any relationship or situation is maintained by the force of communication. In contemporary society, communication as a form of connection is essential. The importance of communication was highlighted by the changes it underwent during the COVID-19 pandemic period. It is very important to identify the changes that the communication has undergone, the teacher-student and student-student relationship, that has not happened in the classroom environment (face to face) but has passed in the online environment. A whole new world of communication has been opened to all those involved in the educational process. The issue of online school communication has become more than a concern. The real problem has now become what we say, how we say and especially how much we say and how long we need to achieve bilateral communication in the context of educational with a help of a computer, notebook or tablet. Communication is a continuous process of sending and receiving messages that allow teachers and students to share knowledge, attitudes and skills. Effective teaching depends on successful communication. When teachers and students interact, explicit communication takes place. In the context of traditional education, verbal communication is supported by nonverbal communication, they are in a relationship of interdependence, verbal behaviours being used to support or optimize verbal behaviours. In the classroom, the teacher-student, student-student interpersonal relationship is an important element that contributes to the students' learning process. In this study we explore the significance of teachers 'and students' experiences in achieving interpersonal relationships and communication during online education.*

Keywords: *educational communication; online communication; interpersonal relationships, COVID-19; communication networks.*

1. Introduction

The definition of communication leads us to two seemingly contradictory theoretical-methodological directions of action (Pânișoară, 2003: 14): the first perspective, an instrumental one, is a result of the fact that the communication process has been the subject of numerous studies and provides a structured and coherent framework of the use of communication; the second direction concerns the numerous studies intended to communicate in an additive vision, in the sense of cumulating all the openings operated by them and brings to attention a structured and coherent framework of the use of communication.

Educational communication is defined in the *Praxiological Dictionary of Pedagogy*, vol. I (Bocoș, 2016: 237) as an ensemble of interpersonal processes in which educational agents are directly involved in educational endeavors and in which interpersonal exchanges of messages, meanings, decisions are made, value judgments, emotional states and influences related to educational processes, with the help of

components / elements of their own communication repertoires, in order to achieve educational goals.

The difficulty of defining communication is also given by the diversity of perspectives from which it can be analyzed: "the perception, attribution, motivation, as well as the personality of each of the communicators influence the way a person receives the information transmitted to another" (Gordon, 1983 :223).

The multitude of variables identified in the definitions of the concept of communication are found in the multitude of models of communication. We present in summary some models with instrumental value for our study: the Andersch, Staats and Bostrom model offers a circular image of communication in which the roles of sender and receiver are not separated; S.L. Becher's model defines communication as a mosaic of sources of influence, being a complex process defined by several layers, some of them acting contradictory; David K. Berlo created the SMCR model on communication (Source, Message, Channel, Receiver) which emphasizes the expansion of communicators' repertoires in order to achieve as many connections and the possibility of a common repertoire, this being done at the level of values or attitudes of the sender and receiver; George Gebner's comprehensive model in which the relationship between form and content is dynamic and interactive; the model of communication as a reciprocal process of influences, offered by Richard and Patricia Schmuck (1992) presents a different vision of the phenomenon, emphasizing the implicit changes and the interaction that takes place in communication; Torrington Hall's (1991) model provides an instrumental procedural view of the phenomenon of communication. The summary analysis of the previously presented models allows us to make a finding: all models involve an exchange of information between a referent and a recipient, who can alternate their role, as well as an energetic or semantic transformation of their relationships, their messages. Education and learning, as communication processes, in turn involve exchanges of substance, behavior or images or knowledge, all of which have a certain meaning and meaning. Through meaning and meaning, communication becomes authentic and efficient (Neacșu, 2015: 242).

In the pedagogical literature (Pânișoară, 2003; Șoitu, 1997; Neacșu, 2010, 2015) it is considered that the essence of the teaching and learning processes is communication

2. The characteristics of educational communication

Until recently, the phrase "teacher-student relationship" was used to reproduce the relationships established between the actors of didactic interaction, in recent years the phrase "educational communication" has been frequently used to emphasize the role of the informational and interpersonal exchange relationship that occurs within the didactic interaction. The relationships that are established are between the same two interlocutors (teacher and pupil / student), but in using the "teacher-student" formula, emphasis was placed on the status of the two partners, one in relation to the other, in the case of the second formula, emphasis falls on the sharing of meanings, on the need to establish an agreement between the interlocutors engaged in a communication relationship (Potolea et al, 2008: 287).

Making a synthesis of the defining psychological, psychosocial and pedagogical determinations for educational communication, we highlight the following aspects:

educational communication is based on an intersubjective relationship, in which each partner participates in the interaction with the whole personality; the school-type communication relationship is specific to the inequality of the partners, in terms of age, experience, background, level of knowledge; messages transmitted in a school context are not reduced to purely cognitive ones, but partners send, in relation to each other, both messages with informational content and messages with interpersonal content (emotions, moods, attitudes); the communication relationship in the school environment in order to be authentic must work according to the principle of circularity, which means creating permanent opportunities for feedback.

The components of the student-teacher relationship continuum interact, often taking the form of mutual exchanges of information or connections in which feedback is absolutely necessary, allowing the calibration and fine-tuning of the relationship through the information obtained (Ceobanu, 2013: 193).

Online educational platforms, streaming platforms, in general, facilitate real-time communication between the teacher and his students. However, communication in this case is very often perceived as somewhat artificial, partly due to the impossibility of obtaining real communicative feedback (which makes communication authentic), and partly due to the awkward context of placement in the virtual space. . The fact that you can be recorded, the fact that you can be heard by anyone (not just your students), not having a real control of the target audience, determines the teachers to build a correct, consistent, fluid discourse. Nonverbal communication and mediated use of paralanguage complete the difficult paradigm of online communication where communication is done through instant chat, and some clues that good nonverbal communication could produce to support verbal communication are now lost through specific interruptions or blockages. these sessions in conditions of limited bandwidth capacity or loaded traffic.

From the range of disruptive factors of educational communication in the online environment we report the frequent occurrence of a physical or mental discomfort, the existence of deficiencies in the auditory analyzer, low motivation of students for training, poor presentation of content, too much fluency or too little speech, poor use of ectosemantic means by the teacher, excessive use of expository methods, ignoring students' expectations, existence of sources of interference (**Frunza**, 2003: 81).

According to some authors (Marcocchia, 2000), computer-mediated communication would be defined by the model of oral communication, from which it borrows certain characteristics and simulates what it cannot reproduce. It is possible to differentiate the channels, according to various criteria relevant in language practices, namely: real-time or synchronous communication, given the parameter with the strongest influence on language use. If we take into account the graphic dimension, it should be noted that the virtual multimedia spaces add the size of the image, in the completeness of the verbal dimension of the speech. Users seek, by all means, to simulate face-to-face interaction, using various procedures provided by the system.

One of the traditionally advanced risks of online communication is that it would place learners in a low social context, where the norms of social identity, self-awareness and a sense of belonging to the group, if not completely absent, are severe anyway. diminished (Kiesler, Siegel and McGuire, 1984).

From a great diversity of discordant results and comments, made especially in the last two decades, we note, in a brief synthesis, two theoretical developments (Nebunu, 2009: 58-59):

□ Absence of socio-emotional indices. The major argument starts from the finding that messages transmitted through computer-mediated communication do not allow the manifestation of physical (gestures, facial expressions, tone of voice, postural expression, etc.) and traditional social interpersonal communication and that, therefore, mediated communication generates evolutions and behaviors. who do not obey socially agreed norms, which is likely to encourage deviant, impulsive or even aggressive behaviors. The positive corollary of the absence of socio-emotional indices would be the release of normative constraints and the escape from social borders, the democratization of relations between individuals, who are no longer prisoners of the same communication norms or no longer have the same status.

Similar effects have been found in education (Hara, Bonk and Angeli, 1998). Starting from the analysis of the content of the messages transmitted between a number of learning subjects, then between them and their trainers, in a situation in which the rhythm and the frame of the means of distance communication, were imposed for a certain duration of the course. cited, they noticed that the messages became progressively less formal and more and more focused on the learning task, to the detriment of the social indices related to the rituals of the interaction (respectively the obligatory completion of some stages of the discourse). At the same time, the interactions focused more on elements of completion or confirmation of already known information and much less on the engagement of an in-depth debate on the issues discussed.

□ Hyperspersonal" communication or processing of social information. Contrary to the previous perspective, this orientation (Walther, 1996) insists on how a message generated in the computer-mediated communication system can convey true social meanings, given the more relaxed time in choosing a writing style, structuring a relevant content, in relation to the interaction of the type currently. The impersonal aspect of exchanges through computer-mediated communication would be likely to give quality to the production of communication, because it involves a more focused attention from participants on the staging of speech, at the expense of nonverbal cues, considered here as distractors. Consequently, the communication partnership in the computer-mediated communication system would lead to a higher degree of self-awareness and introspective activity, which we do not encounter in presence interactions.

Replacing „face-to-face” communication with virtual communication is a big change in learning. Benefits include improved learning performance, more active and equal participation, flexibility of access and ease of use, very specific interaction, more enjoyable learning, better adaptation, less threatening environment for individuals with special characteristics, improved cultural understanding and reduced costs and time.

3. Methodology

The sociological survey undertaken in this research is an extensive survey, as it is addressed to a large population of 1,077 students of a state higher education institution in South-West of Romania; this type of research is based on special topics, aiming to extract general opinions of individuals). It is also quantitative, as it uses a questionnaire with pre-coded questions, easy to interpret and process; allowed us the extraction of a very large number of statistically representative answers; is direct, because it aims strictly to obtain information on the attitude, behaviour, opinions and opinions of individuals, aspects that refer to their activities) and is aimed at the public opinion of the masses (Cauc et. al., 2007: 47).

Our research tool, the questionnaire, addresses a cumulation of the category of respondents set out above - students of a state higher education institution and includes questions aimed at obtaining data on facts, opinions, attitudes and knowledge, because putting them together creates a complete picture and complex of the educational communication process (both vertically and horizontally) during the COVID-19 pandemic. It contains 23 closed questions, to which were added some identification questions (which concerned the specifics of the faculty and the specialization in which the respondents studied).

It is also important to mention that the research tool was a self-administered one, through the online, Google Forms platform. The questionnaire was sent to the target audience, with the help of social platforms, maintaining a continuous communication between the operator and the subjects. The creation of multiple-choice questions was avoided and the questions were formulated to have a single meaning, and could not be interpreted.

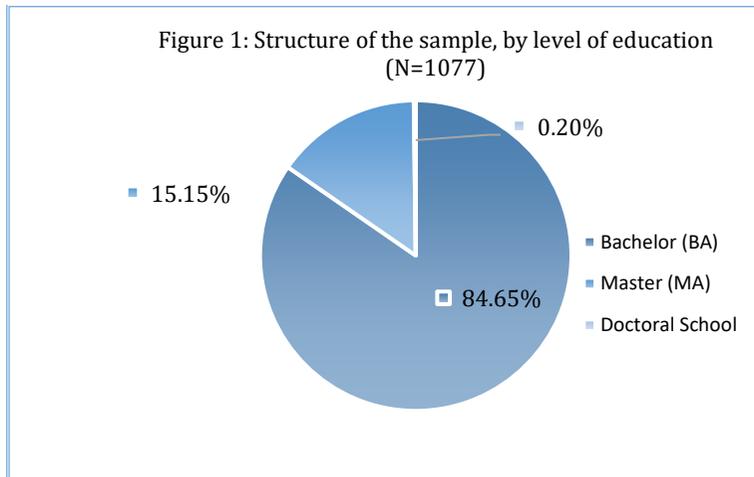
The main objective of our research was to perceive the way in which students of a higher education institution perceived the didactic activity carried out online, with all the aspects that this entailed (from disadvantaged advantages, used platforms, the way of communication with teachers and colleagues, the perception of feelings of isolation and insecurity, generated by quarantine at home).

The first hypothesis (a general one) from which we started in substantiating this research is that the virtual environment includes both risks (reluctance and isolation, in particular) and opportunities (increasing the level of user confidence) and as the level increases education of users, the greater the opportunities they see in using the virtual environment as a means of communication

The second hypothesis of our research was a specific one, focused on educational communication: the greater the openness and involvement of teachers in the use of technology for educational purposes, the more students perceive communication with them in a positive way.

The limit of the research undertaken by us is that of using the online questionnaire, in which the questionnaire operator no longer has absolute control of the study: often, it may happen that the questionnaire circulates and respondents may have difficulty completing it, which can lead to the extraction of erroneous or false data.

From the point of view of the structure of the sample according to sex, it was relatively balanced, in accordance with the gender structure of the students of the higher education institution: 66.2% of females and 33.8% of males. The respondents came from 3 levels of studies (bachelor, master, doctorate/Doctoral School), as shown in the figure below:



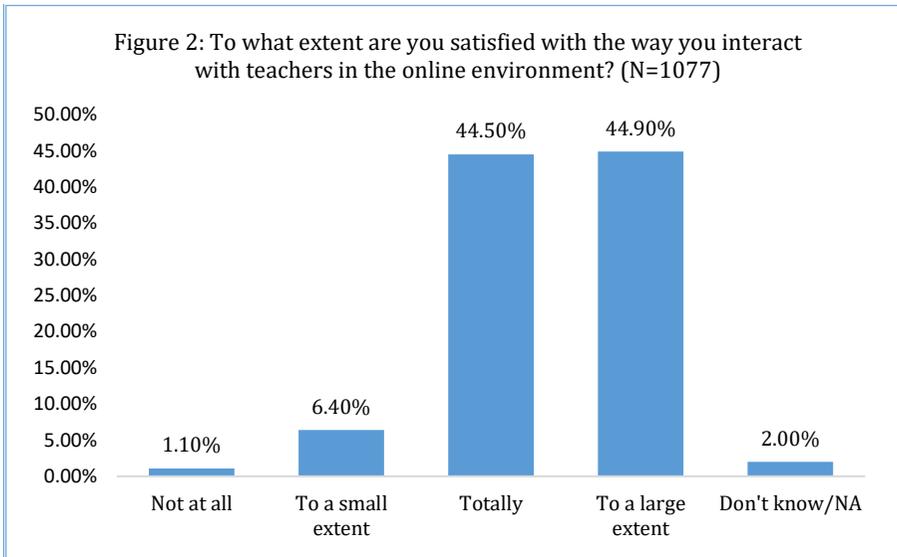
4. Discussion and results

The COVID-19 pandemic greatly influenced the communication process at the level of organizations. Of course, communication in the educational environment (with its two aspects: vertically - teacher-student and horizontally - student-student) was not an exception.

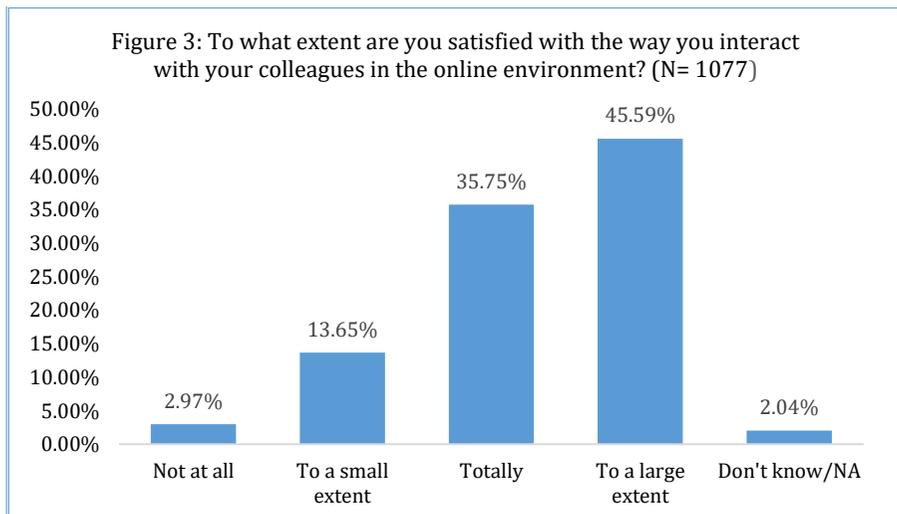
Educational institutions and their actors (teachers, students, research staff, administrative staff, management structures), have felt the negative impact of this crisis, through significant alterations at all levels of operation. The communication process, efficient for the functionality of all organizations (not only the educational ones). In addition, in terms of the education system, the COVID-19 pandemic has affected this system (although in different weights) at all levels, not only at the pre-university level, but also at the university level which is par excellence, "a communication environment, both in external relations with the society as a whole and in internal relations, especially between teaching staff and students (Otovescu, 2012: 243).

However, what we can certainly say, and the data in the graphs below (Figure 1 and Figure 2) confirm this, is that in the university environment, communication relationships have not been so impacted, being an educational environment who had access to technology even before the COVID-19 pandemic broke out. Although the communication process was disrupted (as in all organizations), the impact was low, compared to the pre-university education system (especially in rural areas, where the effects of the pandemic were strongly felt). Moreover, the university education system can be described as characterized by a much faster ability to adapt and a greater "resilience" to disruptive factors, such as restrictions imposed by the COVID-19 pandemic.

Following the questionnaire applied, to the question regarding the evaluation of the communication with the teachers in the online environment, an overwhelming majority of the respondents positively appreciated this communication process. The level of satisfaction was positively assessed ("to a large extent" and "totally") by 89.4%.



What can also be noticed from the figure above, is the fact that 7.5% of the respondents were not satisfied with the interaction with their teachers in the online environment. Of these, only 1.1% expressed total disagreement (by indicating the answer variant "not at all"), 6.4% saying that they are satisfied with the process of communicating with their teachers to a small extent. Without having the possibility (the data) to make statistical correlations, we could not identify the reasons why the level of satisfaction is low for this category of respondents. Most of the times, the deficient educational communication with the teachers came on the background of a non-adaptation of the latter to the new educational context (imposed on the COVID-19 pandemic) and as a result of a lack of openness to change or, better said, , adapting teaching strategies to this new social context.



Regarding the way in which our respondents perceived the communication relationship with colleagues, during the online teaching activities, starting from the answers obtained (indicated in Figure 2) we can build the same picture of the level of satisfaction and a positive appreciation; with small differences, which we will try to explain in the lines below.

As can be seen from Figure 2, the level of satisfaction with the interaction with colleagues is extremely high (81.34% said they were satisfied "completely" and "largely"). What we notice as the difference from the answers to the previous question is the fact that the percentage of those who said they were dissatisfied (2.97%) or satisfied "to a small extent" (13.65%) is much higher. This result can have two possible explanations (P.E.):

- P.E. 1: The level of stress induced by (self) isolation / quarantine was felt differently by different age groups, and social distancing measures were perceived as much more difficult by the younger generations. Numerous studies have shown that the COVID-19 pandemic and the containment measures imposed after its onset stimulated „the build-up of resilience and adapting mechanisms for the new contexts, but for others increased the feeling of alienation” (Pârnu and Niță, 2021: 143).

This also had an impact on the communication relations between them; paradoxically, although familiar with online communication, during the period of isolation at home (March-June 2020) the interaction with colleagues (especially for educational purposes) was deficient.

- P.E. 2: To a large extent, the online interaction of students for educational purposes has been reduced. In the university environment, the main communication relationship of the students takes place in connection with the teachers, meeting daily with them at classes and seminars / practical works. Most of the time, teachers encountered difficulties in finding the best strategies to make students work collaboratively on application projects for seminars / laboratories or semester projects. Moreover, this practice was not so developed in the pre-pandemic period, which created many difficulties for students to collaborate and interact with colleagues for educational purposes.

Table 1: The level of use of some platforms / software / applications for educational purposes and for educational communication (N= 1077)

	Totally	To a large extent	To a small extent	Not at all	Don't know/NA	Total
Email	27,02%	50,14%	14,11%	5,85%	2,88%	100,00%
Google Classroom	42,34%	47,35%	6,69%	0,84%	2,78%	100,00%
Zoom Video Communications	24,03%	45,85%	17,06%	9,73%	3,33%	100,00%
Skype	3,44%	7,61%	12,86%	72,83%	3,26%	100,00%
Facebook	7,48%	13,75%	18,58%	57,07%	3,12%	100,00%
Phone (Audio calls)	11,19%	23,26%	33,21%	33,30%	3,04%	100,00%
Whatsapp	16,76%	29,92%	32,31%	21,41%	3,6%	100,00%
Cisco Webex	1,49%	3,90%	7,24%	84,07%	3,3%	100,00%

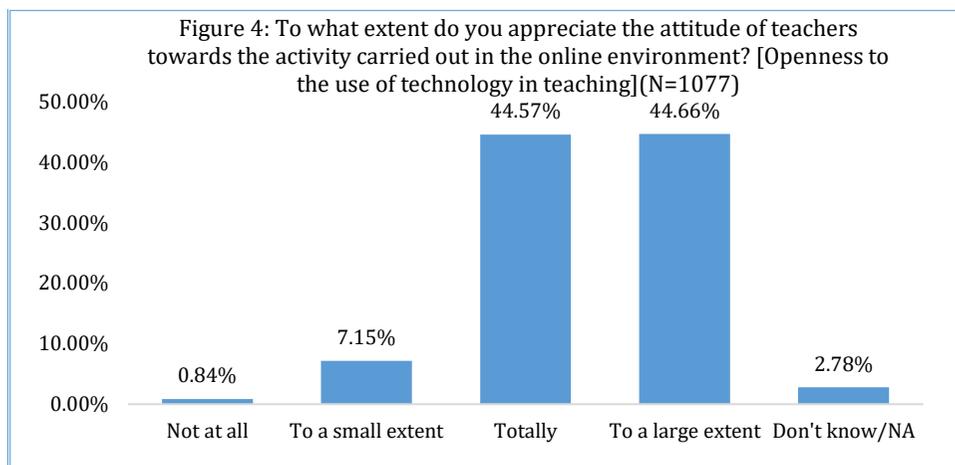
The COVID-19 pandemic determined the awareness of the gaps and deficiencies that the Romanian education system had in terms of connectivity, digital skills and the use of technology for educational purposes. However, as mentioned above, the university education system has been able to adapt more easily to this new context, especially since there were already platforms that were used for teaching purposes (for example, the Moodle platform).

The importance of the educational communication process and the acute need not to lose touch between educational actors (teachers and students) have generated a continuous concern to find the best and most varied ways of communication. This variety of communication methods used during the COVID-19 pandemic is also illustrated by the data in the table above (Table 1), which allow us to identify the most commonly used communication methods for educational purposes; as you can see, they range from software that was previously used by private sector professional organizations (such as Cisco Webex, Skype, or Zoom Communications) to email or regular communication applications such as Whatsapp.), social networks (Facebook) and even software used exclusively for educational purposes (such as Google Classroom).

In fact, as can be seen from the table above, Google Classroom is the most commonly used communication platform for educational purposes, being indicated by 89.69% of respondents as being used "in full" and "largely". In fact, the use of Google Classroom at the level of the higher education institution where the questionnaires were applied came together with the use of the institutional email, both by the teachers and by the students and the administrative staff. This fact explains the percentage of 77.16% of respondents who indicated that they used email as a means of communication ("totally" and "to a large extent").

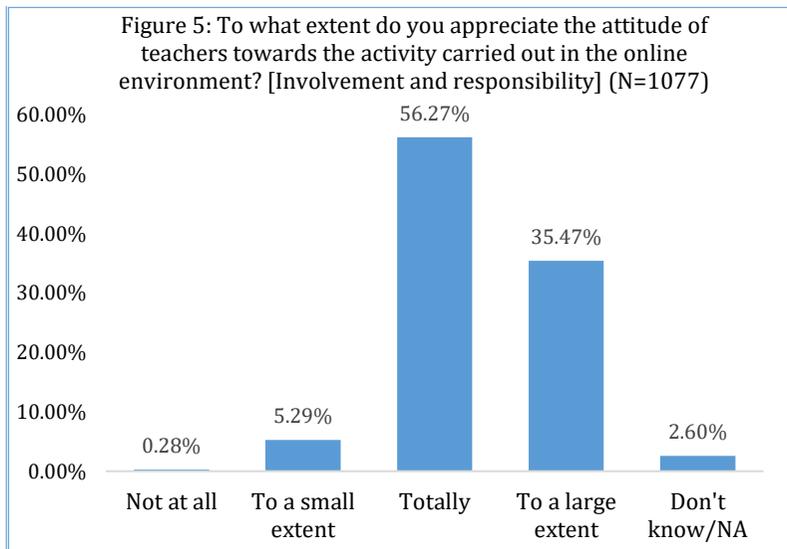
A "novelty" in the field of applications used in the educational environment was the Zoom Video Communications platform: in just four months (December 2019 - March 2020), the number of its users increased 20 times. Therefore, with the onset of the pandemic, Zoom enjoyed increasing success in the educational environment, especially due to the fact that it also offered a free version, which allowed users to use it with great ease for educational purposes. Of the responses provided by our respondents, 69.88% indicated that they used the Zoom application for online interaction for educational purposes ("totally" and "to a large extent").

The least used ways of online interaction, for educational purposes, were Cisco Webex (84.07% indicated that they did not use it at all), Skype (72.83% indicated that they did not use it at all) and Facebook (57.07% indicated that they did not use it at all)



During the COVID-19 pandemic, especially in the early part (March-June 2020), "everyone adapted to the online school as best they could". The context in which this pandemic occurred was not one for which the education system was prepared. The students did not benefit from media education programs in the school, and many of the teachers did not take introductory courses in new technologies, nor did anyone prepare them to use the necessary tools during a pandemic. The adoption of technology and its use for educational purposes is an extremely complex process and is determined by several factors. First of all, we can say that there must be a context that favors their use. A decision to make the use of technology compulsory, unaccompanied by access to an adequate infrastructure, can lead to an increase in the level of frustration of the teacher and to the refusal to use the technology for educational purposes. In addition, there are teachers who have minimal digital skills and who refuse to use technology for digital purposes for fear of making a mistake.

From the answers to the question aimed at assessing the level of openness of teachers to the use of technology for educational purposes, it was observed that in the university environment (at least at the level of the educational institution where the questionnaires were applied) the level of openness to use digital technology is high: 44.57% of students said that their teachers were "fully" open to the use of technology for educational purposes; for 44.66% of the students, their teachers were "largely open" to the use of technology for educational purposes. There was also a percentage of 7.15% of respondents for whom the level of openness of teachers to the use of technology is very low, probably being part of one of the two categories listed above.



When it comes to using digital technology, we need to differentiate between inefficient use and efficient use of technology. There is no doubt that an efficient use of digital technology for educational purposes is that in which the objectives of education are achieved, the content is transmitted effectively, the feedback obtained from students is positive and, most importantly, the evaluation of the content taught and mastered by students is a positive. Secondly, an efficient use of technology for educational purposes can only be achieved through the involvement and responsibility of the teacher, which was the basis for building a question in our questionnaire, which should focus on this dimension. The involvement and responsibility of teachers in the use of technology was positively appreciated by students: 91.74% appreciated that their teachers were involved "fully" and "to a large extent" responsibly in the use of technology for educational purposes. In case of a deficient teacher-student communication, the involvement and responsibility were perceived by the respondents at a minimum level (5.29% appreciated that their teachers were involved to a small extent in the use of technology for educational purposes and in the activity carried out on -line). The total lack of involvement and responsibility was indicated by 0.28% of the respondents.

5. Conclusions

Our research has highlighted the importance of communication in the university environment and the fact that any barrier in educational communication should not be neglected. Secondly, he emphasized that a greater openness of teachers to the use of technologies in education can contribute to improving their communication relationship with students. Last but not least, the COVID-19 pandemic highlighted the resilience of the university education system, which adapted quickly and easily to this new social context, by using various communication software that does not affect the communication relationship. of educational actors, more than the period of isolation did and the restrictions imposed at national level to limit the spread of the COVID virus.

Face-to-face and online communication will coexist in the educational process. For now, the only way to communicate with students is online, we do not have another way in the context of the pandemic. We consider that the problem of virtual communication represents rather the effect of the contemporary socio-communicative context, and at the same time it is the cause of the necessary determinations and analyzes on the communicative and educational space. The Romanian school must find its own system of educational strategies and policies to respond to the pressures and challenges of contemporary society. The teacher's online communication competence can be found as one of these answers that meet the concerns of parents, students, school. It is mandatory for the evolution of the educational space in the virtual society, to identify the optimal methods and means to avoid excess and efficient use of virtual space.

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