A VIEW OF ONLINE TEACHING AND LEARNING DURING THE PANDEMIC

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Abstract

The pandemic caused by SARS-CoV-2 impacted the way in which all the activities of our lives were developed, and the educational system was one of the most affected aspects. The report of the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2020) warns that the pandemic has caused the most serious disorder recorded in education systems in all history, and that higher education would be the sector that could experience the highest dropout rates, as well as a reduction in enrollment of the order of 3.5%, which means a global loss of 7.9 million students. To alleviate this crisis, it recommends formulating comprehensive plans for the reopening of schools, protecting education funding and collaborating to moderate negative impacts, increase the resilience of education systems with a view to fair and sustainable development, rethink education and energize positive change in teaching and learning (UNESCO, 2020). After the declaration of a health emergency, all education levels had to quickly reorganize itself, migrating teaching and learning processes to virtual environment. Although this is increasingly used, there are still a lot of elements that prevent it from working successfully in all contexts.

Key words: online education, technology, pandemic, social and pedagogical transformations

Restrictions experienced lately forced humanity to adapt to a new way of life that gives place to the creation of new scenarios in which the use of new technologies that they are transforming the physical spaces, which were gradually replaced by virtual spaces. Digital applications became a new channel of communication and information that led to teleworking and tele-education. The use of tele-working in the educational field, according to Marti Castro (2003) it is "increasingly broad and diverse, since that can be used by the teacher as a pedagogical support or the student for learning autonomous" (p. 406); However, if in the face-to-face institutions, educational phenomena related to school accompaniment or students with learning problems, in the new context, the following question arises: What about learning in virtual classrooms?

The insertion of new information and communication technologies (ICT) in the educational field, it impacted on the learning process of the learner, in the role of the teacher, in the contents, in the evaluation. The role of the educational subject faces a period of crisis, because on the one hand it generates significant learning; and on the other hand the lack of training in the disciplines gives chances to wide generational gaps, such as "the digital illiterate (teacher) must teach the 21st century technology scholar (student)" (Chamba, 2019). Still, technological innovation in the educational system it has been given gradually and according to the resources that each educational institution owns; however, the current pandemic caused by the COVID19 abruptly forced a change in the teaching and learning process face to face with a virtual scenario without considering the context of the educational communities.

Without face-to-face communication and without possibility to leave home, teachers must adapt and adapt their practices as providers of educational services to home delivery. Lack of physical interactions and absence of a true school setting are major limits. To alleviate these limitations, teachers are invited to consider ways to use effectively existing resources and transform as designers and facilitators of learning having the home as a setting, and which evolves in space and time. While maintaining social interactions with the students, they have to supervise distant students, bridge the physical distance and organize different types of curricular resources.

Telecommunications operators, companies and private organizations reacted adequately, offering, on the one hand, the necessary bandwidth, and on the other, services, programs,

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software, platforms, etc., to facilitate online teaching in the event of a crisis without warning.

Keep in mind that there is a forecast that the global online education market will reach one global investment of $ 350 billion in 2025 (Research and Markets, 2019).

In parallel, governments had to act with reflexes in facilitating programs in some countries distance education through basic classes that could then be supplemented by the teachers, also online, from different centers or from their homes. Thus, students, from their households, could continue their studies by minimizing possible curricular losses. The answers of the different countries, has been unequal but always oriented, obviously, towards non-contact methodologies (World Bank, 2020).

MATERIAL AND METHOD

This paperwork focuses on theoretical research, investigating various actions taken in Europe in the direction of online education. Through these case studies we want to draw recommendations as well as an inventory of the impact and effects recorded during distance / online learning in the pandemic.

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RESULTS AND DISCUSSIONS

Without any doubt, the universities, had it and have it more easy to treat this pandemic situation. In the first place, because many of them already had digital platforms that they had been using in some phases of the development of their teaching, generally face-to-face. And secondly, because age of students makes teaching / learning of this type more viable.

The easiest in these cases, to the less experienced teachers, it has been the live broadcast of a session identical to the face-to-face time above, or the recording of that session for later reception by the students or both situations combined in auditorium class.

Another teacher, more prepared in this type of methodological strategies, he tried to take advantage of the various possibilities of the digital platforms and social networks themselves to develop online tasks in a more creative and efficient way.

It is true that in these times it has happened that, in the face of the forced abrupt change in the ways of teaching, learning and evaluating, which could not continue to be face-to-face, a distance education put very in question in pre-COVID times, it had to be implemented urgently, on a massive scale and with large pedagogical limitations in times of COVID, and it is intended to take advantage of hybrid formats, combined or from blended learning in later times, postCOVID.

In this paperwork we prioritize the concept of “digital distance education” as encompassing a model of non-face-to-face education, fully supported by digital systems. You would be talking about an education virtual, a teaching, an online learning, supported by technologies, on the net, on the Internet, on the web, e-learning, distributed learning, etc. All these denominations, as emerging at the time and successors of the original distance education, tend towards openness, non-dependence on physical location, to the flexibility of time, space and rhythm of learning, to active learning, to interaction (synchronous and asynchronous), etc., as substantial elements in any definition of these concepts (Singh and Thurman, 2019).

It seems that a bigger value is given to the placement of teacher and student in a material place and temporary time so that a relational, collaborative, collective work, etc. can take place. Probably by those who claim that have not worked with collaborative groups in digital distance education. What's more that it can be worked synchronously, and at any time, it can be done asynchronously. And the results they seem unquestionable.

All this without stopping in what is coming, linked to artificial intelligence and virtual reality. Advance that will allow, for example, that a group of students learn together, bringing all the advantages of classroom to the virtual environment, even though they are actually thousands of kilometers from each other. The teachers may or may not enter that virtual classroom, observe the behaviors of their students, intervene to orient, etc. These advances in virtual reality may be joined in the near future by facial recognition of the participants in the group. Facial expressions, such as those seen in face-to-face settings, can show us the degree of interest, their state of mind, in different instances of their participation in the group and thus enable appropriate reactions on the part of educators.

Also these technologies will be able to recognize and analyze the voices. Ways of speaking matter for the better understand what is being said and how it is said. The possibilities of offering biometric data while learning will also come, such as heart rate, body temperature, blood pressure, brain activity, etc. know how a student faces stress, the levels of effort required before certain tasks, etc. (Lush, Cooper and Soto, 2020).

According to the United Nations document (UN, 2020a) in times of pandemic restrictions, in the countries developed digital distance education covered between 80 and 85% of the student

population, while that, in low-income countries, the coverage of virtual education systems would not reach 50%. According UNESCO data (2020a), half of the total number of students, about 826 million, which remained outside the classroom due to the COVID-19 pandemic, did not have access to a home computer and 43% (706 million) did not have the Internet at home, at a time when digital-based distance learning was used to guarantee educational continuity in the vast majority of countries. For this and other reasons, the digital gap and other gaps, have possibly become more acute (Dreesen et al., 2020), hence the UN bet for a widespread shift in the world of work towards more inclusive and people-centered digitization people (UN, 2020b). Perhaps this serious problem supposes a knock on the socio-educational policies implemented by different governments.

Although complementary efforts are increasing in this regard, the commitment to connectivity and access universal Internet should be a goal close in time as governments' response to this crisis.

It is about the inalienable and universal right to education that it should entail in digital times, such as, the right to connectivity, accessibility, and the minimum endowment of technological device for make it come true. This would be the case of sectors of the population that do not have connectivity or devices adequate, or sufficient in families with several children, for the reception of the contents and the interaction with the teachers. Television in these cases can reduce this problem, and even more so radio. These means of communication are much more widespread, accessible to the population and proven to be effective in configure quality educational actions. In any case, the global challenge must be to leave no one behind, in accordance with the provisions of the Sustainable Development Goals (SDG) of the 2030 Agenda of United Nations.

As far as universities are concerned, beyond what many of them had in their strategic plans with forecasts for the future of online teaching, the reality is that very few of them really were prepared to urgently implement a fully digitized educational model (u-Multirank,2020). In hasty readings and knowledge of reality and the implementation of irreplaceable and, in many cases, little deliberate online systems, especially in European and American universities and also with the pioneering COVID experience of Chinese universities (Bao, 2020), could to point out some clues regarding the most relevant drawbacks found in these educational practices emergency and remote, which could serve to consider them, in case of new total closures or partial of educational facilities:

- Difficulty of reaching students who do not have connectivity or appropriate devices.
- Network saturation and low bandwidth, especially in institutions with large masses of students.
- Dropout or discouragement situations of students who show low concentration and persistence in online learning, offering very high density modules or units for long-term, or poorly motivating learning activities.
- Lack of student support and tutoring systems that motivate participation, permanence, support for the resolution of academic and psychological problems (Lozano-Díaz et al., 2020).
- Problems moving from the face-to-face image of the teacher, his gestures and his voice, live, to one remote situation, in which sometimes everything was left in the cold text.
- Cautions, resistance and even aversion of certain teaching groups to the use of technologies.
- Lack of technical support for face-to-face teachers unfamiliar with handling these technologies interactive.
- Synchronous or asynchronous presentation session instances were not properly combined.
- A more consolidated model of formative and continuous evaluation was lacking reduced the great difficulties of a massive final evaluation online, especially in institutions with large numbers of students.
- The different online evaluation models that met the criteria of reliable identification, quality, equality, equity, respect for privacy, data protection, strength of the technological infrastructures, etc

In many cases, it was about over-turning what was being done in the classroom, it was considered an emergency teaching (Hodges et al., 2020) or, better, remote emergency education, this would include concepts such as teaching, instruction, learning. This had nothing to do with what would have been an education well-designed and implemented in a format of digital distance (Hodges et al., 2020). Besides that was not taken into account the tiredness factor referred to the synchronous replica, through the screen, of a face-to-face class, "*Zoom fatigue"* (Wiederhold, 2020).

Naturally there will be those who will draw conclusions from this situation regarding the weaknesses of the distance education, without stopping to think:

• that there was no planning,

• that there were connectivity and equipment problems for many affected,

• that there was no teacher training plan,

• nor of preparation of the students with respect to the self-discipline and self-regulation of their work, more necessary in these environments.

Also, for Romania case central and local authorities have thus been faced with new challenges, unprecedented in the last hundred years, to manage the educational process that traditionally involves communities of children and young people in the best possible physical distance, basic premise to limit the spread of the new virus (Qiu et al., 2020). To this is added the fact that the current school network in Romania inherits for the most part the one before 1990, characterized by overcrowded classes, especially in urban areas, where an average of between 30 and 40 students study. Also, functional illiteracy places Romania on the penultimate place in the European Union because 42% of 15-years-old Romanian students fail to use the information acquired in school to solve their daily problems (Săgeată, 2021).

Although the last thirty years have made significant progress in terms of children's rights, 40% of Romania's children still live in poverty or are at risk of social exclusion, one of the highest levels in the European Union. Major disparities persist between the national average and the lives of poor children in rural areas, Roma minority children and children with disabilities.

About 400,000 children are still out of the education system. More Romanian children and young people leave school earlier than the European average, although in 2019 their number was at an all-time low of 15.7%. Moreover, 44% of 15-year-olds scored below the minimum literacy level on the OECD PISA test.

If we think about the close link between lack of education and lack of opportunities, the main objective becomes to make sure that all children go to school as much as possible, learn as well as they can and thus have a better chance of success in life.

A large part of the solution is to give the vulnerable access to quality inclusive education, access until recently, that was situated on a downward trend.

Although Romania has a wide range of internet connectivity, steps are still needed to ensure all resources and an integrated framework for access to quality education in digital era.

Against the background of the public consultation, 3 levels of digitalization in education were identified:

- management and administration, automation and anonymisation (records, electronic catalog, reports, checklists, record of attendance / absences, communication, track record, data anonymization/protection)

- teaching activity: teaching-learning processes and assessment activities (both training, as well as the summative ones); counseling and guidance activities, psychological and socio-emotional support; extracurricular activities (clubs, non-formal activities); remediation and recovery; activities of promoting excellence and high performance;

- and a cross-cutting level: communication and collaboration efficiency (at school / chancellery level, school-family relationship, relationships and partnerships: school - local government - NGO – environment business).

An extensive study carried out at the beginning of the state of emergency, coordinated by a consortium formed from the University of Bucharest, „Alexandru Ioan Cuza" University of Iași, Western University rom Timișoara and the Institute of Educational Sciences offers some important findings. Participants in the study, both teachers and students complained that the use of new technologies shows significant difficulties. Both students and teachers said they were not used to use these tools in the teaching / learning process. Most students and teachers

teachers acknowledged that they do not have sufficiently developed digital skills to could use online learning tools, or to be able to design and make enough of attractive to students. Organizational actors from whom students and teachers expect support as well as the resources these groups need are fundamental elements of any public policy analysis.

The teachers declared, at the time of conducting the "Home School" study, that the school principal (35% of the recorded responses) is the main source of "guidance", the Ministry (along with all other subordinate organizations, such as the School Inspectorates, Institute of Educational Sciences, Resource Centers and Educational Assistance, etc.) was nominated as a source of "guidance" by 25% of teachers surveyed, while "Colleagues" were a source of support for about 23% of teachers.

The resources that teachers accessed were: their own previous experience in use of online learning tools, cited by 82% of respondents. The personal experience is followed, in descending order of importance by: "various tutorials found online (78%), peer support groups such as Facebook teacher groups (77%), training programs in the field of ICT carried out through CCDs (60%), the portal opened by Ministry of Education on http://digital.educred.ro (60%), ideas for activities with digital support from

http://digitaledu.ro (59%), CRED workshops conducted by videoconference (57%), resources open educational programs collected by school inspectorates in the last three years (56%), programs training in the field of ICT carried out by NGOs / companies (50%), and eTwinning platform (47%)."

Introduction in the initial psycho-pedagogical training programs of the disciplines for the integration of technology in the teaching-learning-assessment process is also mentioned. A little a bit late (Order of the Ministry of Education no. 4135 / 21.04.2020), however, given that since 2014 the European Council has also concluded Recommends to the Member States of the European Union: The rapid spread of the instruments of digital learning and open educational resources also create the need for teachers to acquire a sufficient understanding of them in order to be able to develop digital skills and use them effectively and appropriately in teaching. These new tools can it also helps to ensure equal access to high-quality education for all.

All this data suggests that it is not very realistic to start from the assumption that switching to teaching exclusively online can be done easily. Beyond the fact that it exists households that do not have internet access or a telephone signal, or do not have one computer / laptop / tablet / mobile phone, as well as a fairly high level of digital skills low, self-isolation at home and moving the educational process exclusively to the domestic space some generated and other complicated situations.

CONCLUSIONS

Certainly, during restrictions, solutions were provided at non-university levels very provisional that, although they will leave elements for reflection to adopt certain innovations, a large part of them will end once the crisis is over. However, at universitary level it will probably be different. The remote, digital, online and flexible modalities will be used in a very widespread once the pandemic is over.

That there are institutions and teachers who are willing to return to the traditional face-to-face model, for course. But can it be doubted that, even among those who yearn for 100% presence, in the future their educational practices will be modulated and much more enriched, mediated or complemented, by the digital technologies?

The impact of this pandemic and the concomitant economic crisis have generated a change in how, when and where student learning occurs (Fox, et al., 2020). Pedagogical renewal and innovation always recommended and, generally, postponed, we now have the great opportunity to become reality and gain in educational quality and equity. Systems are needed for the immediate future resilient educational institutions, with the capacity to respond to emergency situations and with safeguards for reduce inequalities that were aggravated as never before. In reality, COVID-19 can occur as an accelerator of the transformation of higher education that will mean that online and flexible learning are guests they came to stay (Naffi, 2020).

It is well known that an essential curricular variable of any educational process is evaluation. About her a great debate was established during the restrictions that still survives, on more suitable formulas to carry out evaluation strategies and techniques, taking into account current problems to implement a universal face-to-face assessment.

Romania ranks 26th out of the 28 EU member states in the Economic Index and the Digital Society (EIDS) for 2020. Based on data prior to the pandemic, Romania's performance was identical in four of the five measured EIDS dimensions. Romania has a poor performance in terms of digital public services and digital skills.

During this period, "teaching-learning" has moved mainly in the online environment, and the challenges that schools in Romania faced were related to:

- Lack of predictability;
- Heterogeneous school network, with a strong digital gap between schools;
- Insufficiently developed digital skills for the efficient organization of the teaching process in the online environment;
- Reduced access to technology and reduced internet connectivity;
- The reduced possibilities of families in providing support to the beneficiaries of education, children, for participation in online lessons.

At present, the integrated approach to all aspects of the digitization of public services, including in the field of education is ensured by the provisions of the National Strategy for the Digital Agenda Romania 2020. Although Romania has a wide range of internet connectivity, steps are still needed to ensure all resources and an integrated framework for access to quality education in digital era.

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