



Advantages and Disadvantages of Distance Learning During Pandemic in the Digital Era

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Abstract

The purpose of this paper is to describe the ability of students to absorb information (including scientific) during a pandemic in the online environment. The article discusses the differences and similarities between online learning and traditional education. The aim is to define the most successful approaches to education in the 21st century. The research tries to define, consider, and analyze all the factors that affect the learning process, both direct and indirect nowadays. The main point is to analyze the disadvantages of online learning, what causes them and how to make the education process better in the digital era. The paper reveals some possible options for an upgrade of the education process. The approach is based on psychology and sociology, both theoretical and empirical. The participants in the research are 100 bachelor's students' in humanitarian specialties. The study methodology is based on observation and interview and systematic analyzes. The conclusion of the study is that modern education must be a hybrid between upgraded traditional education and online learning including the using of digital resources but with wide usage of learning by doing method.

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Introduction

Education is effective when it is based on knowledge and approach. In general, it could be said that without the necessary knowledge you cannot educate other people. If you misinform them, then you do more harm than not giving them knowledge. But even if you have excellent knowledge, it is very important to have an effective approach to the audience. The approach is critical. It leads to focusing the audience on the material taught and leads to activation not only of memory but also of active thinking. It is very important to generate interest that builds a desire to gain new knowledge and stimulate a higher degree of discipline that leads to systematic learning, because learning is a very long process; learning is not something you can complete. This is an ongoing process.

The students should be respected by the speaker and an approach should always be winning the hearts and minds, both their attention and interest and their respect. When a student is respecting his teacher, he will study and perform better. Boring lectures do not hold attention, even many experts in communication and teaching provide, as a fundamental rule in presentations to approach in an alternative way, not as a lecturer.

Modern Approach

The traditional teaching approach is not considered to be very interesting. Students lose attention quickly. The disciplines must be adapted to the modern age. Mussman reminds us that the lecture descends from the Latin word to read. And lecturing must be something different, something more. He is pointing out alternative ways to give knowledge – “Peer Instruction, Flipped Classroom, Project-Based Learning, Competency-Based Learning” (2021). Peer instructions are a way to divide students into small groups and each group is responsible for a certain part of the study. When they are finished they are teaching their part to others. Mazur and Crouch are using this method since 1991 and they are taking great results (2001). The flipped classroom method is when the lector is giving materials and tasks to the students for homework and in class, the teacher is checking the results of their studies which they did out of the classroom. Project-based learning is when the lecture is giving just the direction of the task and students are doing their own research and solving problems on their own. Competency-based learning is similar the project-based learning but a bit different, more flexible, and basically aimed at gaining competency. At the same time, competency-based learning is supposed to have a specific approach for each student. That is why is so flexible and the outcome is to develop different competencies in each individual. These methods are really working. They work with different success based on the different types of students. They must be used as a mixed approach and combined with standard lecturing. In this way, the lecture is activating the students better and makes lectures more interesting. Besides learning process must contain the method develop by the philosopher John Dewey - learning by doing. It is proven that people “understand and remember material better when they have been asked to generate it themselves rather than reviewing an account generated by someone else” (Bwalya, 2020).

Nelson Mandela stated that times change, and people need to change as well. The traditional lecturing needs to be updated according to the present day. Society is changing so we must adapt the teaching according to society. But this is a very gentle matter. And that doesn't mean that people must take away everything from the past. They need just to adapt it a little. This transformation is ongoing. Because of the COVID pandemic, we had to switch immediately from traditional lecturing to online remote learning. That was a new challenge and before people fully archives the previous one – updating the traditional learning process. In a certain way, the COVID situation might help us to update lecturing faster and better and, in the end, this will be a benefit for the education process. A

mixture of traditional lecturing with the new approaches and the experience from the COVID remote learning will bring to the surface the modern and most appropriate learning process for the present society. Life is becoming more complex that's why we are often talking about the need for more interdisciplinary studies. So, we must make teaching more interdisciplinary as well. This means using new approaches and computer and information technologies too.

Newell said that the frequent pairing of complexity and interdisciplinary is no coincidence... He writes that everything that is produced by a complex system - interdisciplinary is required. "The phenomena modeled by most complex systems are multi-faceted. Seen from one angle, they appear different than they do from another angle because the viewers see facets (represented as sub-systems) where different components and relationships dominate" (2001). The complexity of life and the ongoing globalization needs a more interdisciplinary approach, so more interdisciplinary studies are needed.

Online and Traditional Learning

The approach to traditional teaching and online teaching has several similarities - interactivity, providing presentations to activate both auditory and visual memory, leadership approach, tasks, and questions. Some online teaching perspectives provide ahead of classical teaching. Sometimes there are cases in which people who are not able to be present at the university can take advantage of online teaching and be a part of the educational process. For example; when they are sick when they look after a small child at home when they are helping a sick adult parent at home, when they are not present, and even some students manage to attend online lectures from their working place. Generally, these are exceptions, but it should be noted that these people would certainly miss these lectures if they had to be at the universities. That online teaching has a significant assessment from the point of view of higher student presence. Through online teaching, I have had the opportunity to teach students who are quarantined, sick, and even a student with broken limbs and patients in hospitals. They all took part in the lectures, did not skip classes, and successfully did their homework. This would be very difficult, impossible in traditional teaching. On the other hand, teaching online makes students a little lazier and it is making a part of the real-life part of virtual reality, which in turn creates other problems (Andrews, 2016). It is noteworthy that online learning leads to problems when students must return to the present teaching, they prefer to study online. The reasons are different - laziness, finding a job, the need to move from their hometowns to the vicinity of the university or dormitories, habits.

The virtual reality created by computer technologies can give us more learning opportunities than traditional education because it goes beyond the traditional limits. We must use this opportunity because life is all about progress in every possible way. Technology is the best friend of science and education. At the same time everything that can be used for good can-do harm as well. Costello said that using different types of virtual reality systems "can cause different types of physical, physiological and psychological problems" (1997). Since that time there are numerous studies focused on the downside of using computer technologies, virtual reality, social networks, etc. It is all about dosage, direction, and purpose. Social networks are something great, but they are having a devastating effect on society concerning disinformation and manipulation. I can say that I was using social networks and viber groups in the teaching process even before the pandemic but very limited and connected with peer instruction, flipped classrooms, project-based learning, and competency-based learning approaches. Feedback from students was excellent and the results are also very good. The data were collected through a paper survey and interviews. At the same time, it is more than obvious that incredible disinformation, manipulation, and fake news are spreading faster than COVID on social networks.

Disadvantages

It is noteworthy that teaching online leads to a loss of authority. The impact related to the authority of the teacher is stronger when the training is conducted traditionally. The learning process can be better modeled when it is taught live and when there is a student with weak discipline and interest; things get worse with online teaching. The virtual space itself equalizes the participants in it. The teacher is no longer standing in front of the students, but on an equal level with them. He is one of the many icons on the desktop. Facial expressions and intonation are not so effective. Lack of authority can lead to a sense of uniqueness and superiority in everyone. This inevitably can create tension. So, in 1968, Jane Elliott organized an experiment in elementary school. The experiment is easy to carry out; students are divided into two groups according to eye color - brown and blue. Then false data is read, according to which one group is mentally superior to the other. After exactly one day, the superior group begins to behave more cruelly toward the lower group. Often in the social aspect, individualism leads to the forgetting that we live in a society, and the society to exist successfully is obliged to make concessions and compromises. When utopian notions and attitudes are formed, that generally worsens the environment.

Student activity also decreases slightly. Another important point related to teaching is the fact that despite the positives of online learning, perception in some respects is better when teaching in a traditional environment, including through new technologies. Of course, a lot depends on what subject will be taught. The following pattern is also observed; students from higher courses make better use of online learning opportunities. Students' personal motivation, discipline, and maturity are influencing online teaching.

Combining auditory and visual memory is giving better results (Pillai & Yathiraj, 2017). Intonation can affect the focus, debate with the audience is important, leadership, and individualization, and activating their participation are key elements for a better educational process (Schleicher, 2017). The debate between the students, the conversations after the lecture with the teacher, and the discussion over a cup of coffee have added value. This thing must not be underestimated. The conversations over coffee with the teacher are a kind of think tank, they are the result of a completely voluntary desire of students for additional knowledge and the shortening of the distance with the teacher because he talks to a smaller group of students and informally leaves an imprint in the mind of the student.

Information and Digital Era During Pandemic

The situation with the pandemic has made us pay more attention to other issues related to information and globalization processes, which, like other processes, have many positives, but also have negative consequences for society. The first general problem is the so-called Google Effect. The Internet and the search engines that exist on it enable us to search for information extremely quickly and purposefully. They give us incredible opportunities to acquire knowledge and today science is unthinkable without the Internet, search engines, and databases. From this point of view, students should become smarter and more capable with a broader horizon and interests. But things don't turn out that way. Why? One of the reasons is the Google Effect, which leads to the so-called digital amnesia. This suggests that it is much easier for people to forget information that they have acquired easily using search engines such as Google. On the other hand, we are looking for more and more information from search engines. Respectively, we forget a huge part of the information we have acquired. The use of search engines has another disadvantage; we can easily find the specific information we need without acquiring peripheral information. Acquiring peripheral information really enriches us. We use it in all life situations, and it is what defines us as smart. In other words, the Internet and search engines are not making it as smart. The use of cell phones is making things even

worse. Doctors are recommending that people must apply the so-called digital diet (Moledina & Khoja, 2018).

This does not happen to all people, but the general trends are as follows. And this is a problem. Students prefer to use search engines rather than read books when they have assignments and learn less from the previous generations. This is a new reality, which at the moment has the opposite effect rather than positive ones. Teaching needs to be adapted to try to fill the gaps caused by the negatives in this digital world. Psychology experts Wegner and Ward share that “we treat the Internet much like we would a human transactive memory partner. We off-load memories to “the cloud” just as readily as we would to a family member, friend, or lover. The Internet, in another sense, is also unlike a human transactive memory partner; it knows more and can produce this information more quickly. Almost all information today is readily available through a quick Internet search. It may be that the Internet is taking the place not just of other people as external sources of memory but also of our own cognitive faculties. The Internet may not only eliminate the need for a partner with whom to share information—it may also undermine the impulse to ensure that some important, just learned facts get inscribed into our biological memory banks. We called this the Google effect” (2013). Another negative aspect of the digital age is the reduction of the need to discuss, share and seek common solutions with other people. The lack of effective communication with other people, and the lack of brainstorming also have a serious impact. Working in a live team using digital and standard sources of information and supported by brainstorming is probably the best way to develop students' thinking and cognitive abilities. Partial brainstorming can also be done in online training, but not so effectively and successfully. Of course, there are different types of brainstorming and they interact differently with different groups. Al-Sammorraie and Hurmuzan have made research for the effect of different types of brainstorming over the higher education. The results are that brainstorming is making the educational process better (2018, 78-91).

Information and disinformation raise questions about the approach to the transmission of information and the lack of authority. In today's digital society, not only are teaching authority and trust lost when teaching online, but institutional authority is also lost, whether we are talking about the university institution, national media, or entire countries. This leads to another teaching challenge, which is related not only to the presentation of information, but to the question of whether the information reaches the students at all or, more precisely, is perceived by the students as reliable. It is becoming more and more obvious that society (including students) is looking for alternative sources of information, which by their nature have a disinformation characteristic. To what extent is student learning in the hands of teachers, not in the hands of sites that spread misinformation and fake news and amass serious gains from it. The COVID-19 crisis has shown us a picture that has been identified as worrying. The information campaign with the pandemic was accompanied by huge disinformation and fake news. At the same time, there is no lack of reliable expert information, as well as information from official information bodies and channels. It is noteworthy that many students successfully assimilate false or distorted information and perceive it as absolute. Then it is remembered that this is accepted and such information, which they could determine as incorrect if they show logical thinking and seek additional scientific information on the topics under discussion. This would lead to the rejection of fake news, but while it may sound easy, such actions are rare. Students who have no idea about medicine start arguing and not accepting doctors well, based on absurd pseudo theories. The tries to convince the students with scientific information is facing resistance, which we could define as a serious cognitive imbalance. Various allegations have emerged that COVID-19 does not exist, that COVID-19 is a bacterium or parasite, that COVID-19 does not pose a threat to humans and is all part of a global conspiracy, that actually the vaccines spread the virus, that vaccines have chips, that PCR tests are contagious, including that the virus is spread by spraying from airplanes (so called Chemtrail

conspiracy theory), treatment against coronavirus should be carried out by drinking bleach, smearing with cow excrement (India) or drinking preparations for completely different diseases. There is also such disinformation according to it vaccines lead to impotence for up to three generations, it remains unclear how an impotent person can have a generation, and other theories after closer examination sound just as absurd. There have been publications commenting on the prevalence of the SARS virus, which is in fact quite similar to COVID-19, with similar symptoms, from the same family and originating from the same country, but unfortunately COVID-19 is more contagious and deadly. Again, the generalization is based on the keyword coronavirus, which for many readers does not assume that there is more than one existing coronavirus.

Structures such as the World Health Organization, the Centers for Disease Control and Prevention, the European Center for Disease Prevention and Control, and similar organizations in many countries are constantly struggling to catch up with the spread of misinformation and fake news, but the battle seems doomed. The World Health Organization (WHO) itself has created and distributed manuals with instructions on the name: Communication risk during an emergency caused by health problems. It pays attention to building trust in society, feeding it with frequent and objective information, integrating information at all public and private levels, strict monitoring, etc. COVID – 19 pandemic gave us some excellent examples of how we do not have control over the information process and how difficult it is for official and scientific institutions to fight propaganda. Based on information and communication technologies, in the world, parallel hierarchical centers are being built, which influence society. These centers mainly spread disinformation, fake news, and pseudoscience. Basically, the world is facing a serious problem with the disinformation reality. This reality needs not just an educational approach but a governmental and this problem is not just about science and education. This is a serious broad problem that affects all aspects of life.

Discussion and Conclusion

Education must evolve so it can be adequate for modern times. On one side, some scantiest believes that education must evolve and the evolution process is ongoing (Hanisch & Eirdosh), while other believes that education is evolving from a certain period of time and that is something natural (Baciu, 2014). Today's society is different from the society before 50 years, so education must evolve to be appropriate to the new aspects of society. The key problem is how to make education more appropriate for the needs of the people. The fast transformation of the education process during the COVID 19 pandemic shows very important results. Changes must be made, but fast and radical changes are not the best option for now. The changes must process smoothly and delicate with a combination of traditional education, innovative learning methods based on learning by doing, peer instruction, flipped classroom, project-based learning, competency-based learning, and the learning process must contain more interdisciplinary content and with a portion of online learning. At the same time, educational institutions must work a lot on making education more authoritative so people will rely more on educational institutions and official institutions for gaining knowledge and information and not on different unreliable informational channels. Obviously educational institutions and official institutions must give much more examples and scientific proof and not only scientific conclusions. I believe that online learning will be able to be adapted even more successfully but it will take time and a correct approach, and I strongly point out that it is about higher education, not basic education. In any case, traditional teaching will always retain its benefits, but it does not override the benefits of online learning. Probably in the future a hybrid variant will be formed, regardless of whether there is any need for it because of pandemic or something else. Online teaching can be applied to guest lecturers. It would be possible to organize lectures with guest lecturers to teach online without having to travel thousands of kilometers, to organize their accommodation and more. Such a practice will

significantly enrich global education, as well as save a lot of money that can be used for the development of science, because science always needs more money.

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