Original Paper

Online Teaching in Higher Education during COVID-19 Pandemic

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Abstract

The whole world population witnesses changes that are happening due to COVID-19 pandemic. One of the greatest changes is shown in the manner of conducting the educational process that has been transferred from traditional onsite to online. This paper analyses what are advantages and what are disadvantages of online teaching in higher education in Croatia, but it is applicable to all levels of education system. As approximately one year has passed since first lockdown and consequently closing all educational institutions, some experience is gained. This paper will try to systematize most of the findings that practice of online education has shown. In a few words, some advantages of quality online teaching are: low expenses, timesaving, learning at one's own pace, motivation, communication, attention etc. Disadvantages of online teaching are: lack of social face-to-face contact, extreme exposure to screens, all sorts of distractions due to inappropriate work environment, inadequate technical equipment, lack of digital skills etc. Although the key role is on the teachers as creators of the educational process, students, as participants of the process, should also make an effort to adjust and embrace new ways of teaching and learning. Both teachers and students should express their opinions and all sorts of needs, to take the best out of online education during a pandemic.

Keywords

online education, online teaching, higher education, pandemic

1. Introduction

COVID-19 pandemic has had a severe impact on normal (traditional) educational process and progress. At the time of the "Corona crisis", there was an urgent need to move teaching to an online environment, both in primary and secondary schools as well as in higher education institutions. This step was necessary in order to preserve the health of students, teachers and individuals from their surroundings.

Online education can be defined as electronically supported learning and teaching, that relies on the Internet, with the aim of interaction between teachers and students and for exchanging teaching materials. However, the experience of online teaching during pandemic shows that this is mostly only a necessary replacement for live classes.

Online education can be an effective method of education for the students who are mature, self-disciplined, motivated, well organized and having high degree of time management skills. Such way of education has higher requirements on the ability of self-control and self-supervision of students. On the other hand, online education can be an inappropriate learning environment for more dependent students who have difficulty with assuming responsibilities required by the online courses. For some students who lack ability of self-control, there is less teacher supervision and guidance in online teaching, which can lead to decline in academic success (Kumar, 2010; Huang, 2020).

Regarding to online teaching, it can be divided into two types: asynchronous teaching and synchronous interactive teaching. Asynchronous teaching can include for example: development of (advanced) teaching materials, pre-recorded lectures, usage of different tools, storage, streaming and other resources. Synchronous interactive teaching can include for example: all sorts of live (real time) webinars and live streaming.

In order to qualitatively shape the teaching process in the online environment, teachers who find themselves in such situation must be aware of several insights:

•   are they optimistic or skeptical about online learning;

•   are they interested in learning and knowing how to deliver classes online and what is the best way to deliver classes online to their specific students;

•   are they enthusiastic about finding themselves in new, unfamiliar situation;

•   are they prepared to face the challenges of working in new environment;

•   ...

Teacher's positive attitude is one of the key elements in process of transforming classical onsite teaching into an online teaching. The application of modern educational technology in teaching can promote the renewal of teachers' teaching ideas, the improvement of teaching methods and the transformation of evaluation methods, thereby improving their professional teaching ability and information teaching level (Huang, 2020).

This paper will try to systematize the advantages and disadvantages of online learning in the higher education system.

2. Topic Review

2.1 Advantages of Online Learning

Research has shown that young people are open for new sorts of learning such as online learning (Kumar, 2010). Many of them choose online courses and education as part of lifelong learning, retraining, or a desire or need to advance in a field of interest. Let us look for example widely present

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MOOCs (Massive Open Online Courses) numbering millions of attendees.

MOOCs are learning platforms that provide the opportunity to attend online courses to a large number of participants regardless of place and time, thus contributing to the global spread of education. Many educational and business institutions around the world offer MOOCs by distributing video lessons in a variety of languages and on a wide range of topics. MOOCs have created an open space where media and technology merge with education in the context of complex social processes. Using a variety of sophisticated technologies and educational methodologies, courses have been created so that different types of participants can use them and communicate with each other. These are students from different social backgrounds, with different learning motives, with different prior knowledge and learning abilities. In order to break down language barriers and provide access to courses for as many participants as possible, some MOOCs, in collaboration with translators, offer their materials in several different languages (Pethuraja, 2015).

The word Massive means that MOOCs are easily accessible and can accept a large number of participants who independently organize their participation according to their own interests, learning goals, prior knowledge and skills. The word Open emphasizes the openness of MOOCs to anyone who has Internet access and interest in a particular course. As a result, they are available to a much larger number of individuals than is possible through classical onsite education systems. The word Online means that the complete process takes place on the Internet, and the word Course denotes used learning structure (Mesquita & Peres, 2015). MOOCs connect people interested in learning and professionals who want to facilitate learning processes.

The purpose of the MOOC is:

•   lifelong education;

•   providing education opportunities for underprivileged populations;

•   enabling employers to monitor the competitive labor market in an economical way.

If in such MOOC we include an interaction through, for example, interactive video tutorials, some researchers have shown that students' satisfaction and learning outcomes are greater (Mikelić Preradović et al., 2020). That is because interactive video draws students' attention to educational material precisely thanks to the interactivity that occurs between the individual and the video material (Zhang et al., 2006.)

Therefore, the above-mentioned example shows that there are advantages of online education, outside of pandemic. Similar should be applied in higher education institutions in this exceptional pandemic times.

Kumar (2010) lists advantages of online learning that can be also applied into a current situation. These are:

•   convenience,

•   less expensive,

•   technology,

- additional benefits.

When talking about term Convenience, it is referred to, for example:

- study location (no traveling time-saving time, no geographic location constraints);

- study time (materials are available online at all time, so students can have their own learning pace);

- reduced class duration;

- no need to reconcile business and educational obligations in real time for students who are employed;

- easy access to classes for vulnerable and isolated students, or for students who are in hospitals and are thus prevented from following onsite educational process;

- separation of teachers and students in online teaching causes a decrease in students' dependence on teachers, which allows for a gradual increase of the ability for students' independent development (Huang, 2020).

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Term Less expensive means, for example:

- no travel expenses to the higher education institution that students attend;

- no costs of a tenancy or dormitory for students from places dislocated from the higher education institution they attend;

- no need to quit the job because of students obligations connected to place and time;

- …

Term Technology means, for example:

- students can attend online classes anywhere they have Internet and computer / smartphone / tablet access;

- students have an opportunity to learn and practice how to use new technologies;

- …

Additional benefits can be:

- equal participation from all classmates in particular process;

- easier going through the process for introverted students, or those who need more time in understanding the material;

- innovative and creative approaches to deliver an instruction;

- variety in educational process due the usage of Information and Communication Technology (ICT);

- …

For online education to be successful, it is necessary to provide a clear two-way communication channel between teachers and students, and between students themselves. In addition, it is necessary for teachers to encourage students to communicate and give feedback. The easiest way to do this is if the virtual classes are held through video calls / webinars (…) in real time. In that way, students have

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the feeling of attending the real class, especially if teacher leads a good dialog between all participants, encourages teamwork and problem solving. This feeling is also increased if virtual classes are held according to the usual schedule (timetable) that applies to onsite classes.

The other most important issue is motivation and enthusiasm. Teachers must find the new ways to motivate students for learning in these altered conditions due to a pandemic. Therefore, teachers are required to determine a fixed teaching structure and a pre-known schedule of educational obligations for students. In addition, the entire educational process of a day must be harmonized in such a way that there are breaks for rest and refreshment between individual subjects. Also, the teacher himself / herself must possess certain qualities that positively affect the motivation of students. He / she should be cheerful, empathetic, objective, approachable, motivated to work with students and help them if necessary, and with equal treatment of all students.

Besides communication and motivation, there is also an attention as a concept that should be taken into account in order to successfully implement the online educational process. For it to be maintained, teacher should use a variety of quality teaching methods, such as those that encourage interactivity, as opposed to a situation in which students find themselves only as passive observers of the educational process.

2.2 Disadvantages of Online Learning

Unfortunately, we are witnesses that online education during COVID-19 pandemic has also disadvantages.

People are social beings, so when educational institutions close, the problem is psychologically social because students close themselves in their "bubbles" and they do not have needed social contact, which is extremely important for healthy development. If online classes are not held through video calls in real time, there is a high probability that teacher cannot additionally explain a lesson to student who does not understand it, and the student cannot ask the teacher if the lesson is not clear to him / her. There is no personalized attention and face-to-face interaction between teacher and student. In this way students may become depressed and anxious, which can cause above-mentioned sociological and psychological problems. In other words, social isolation caused by closed educational institutions can trigger negative effects on mental health of young people as well as on their social inclusion.

Emotions can also be mentioned here. It is well known that virtual world lacks with emotions, better to say, lacks with ways for person to qualitatively express emotions. Emotions are an important factor for students to control their own learning state and influence on their learning outcomes (Huang, 2020).

Researches show that, in generally, 21st century youth spend too much time in front of all sorts of screens. If the education process takes place online, the time of exposure to screens is even longer. The result is a bad impact on the health and psychological and social development of students, and of teachers also. In addition, it can happen that the time for consultations disappears, so professors receive messages, inquiries, assignments, etc., at any time of the day or night. In this way, professors are disturbed, and their working day lasts 24 hours without personal space.

During online classes, the issue of maintaining students' attention also arises. If students participate in classes without a camera on, the teacher has no insight into what the students are doing. Teachers must make additional efforts in designing teaching and creating attractive and interactive teaching materials in order to be able to maintain the attention of students who find themselves in an environment full of distractions (e.g., other housemates, the sources of entertainment they are surrounded by, not having a fixed place arranged for learning, etc.). For this reason, the duration of a class should definitely be shortened, especially if students have many school hours in one day.

In a real classroom-teaching environment, teachers can monitor the overall student's learning status and acceptance, and can restrain some students' distracting behavior in time. On the other hand, during online teaching, teachers have reduced knowledge of whether or not students have fully understood a lesson, and cannot anticipate and prevent undesirable behavior in a timely manner.

There are also technical issues of online education: not all students are equally digitally equipped, leading to inequalities in chances and educational success. For example, students may have a weak internet connection or no internet connection, or they may not have adequate equipment due to poverty. In addition, students are required to learn new computer and troubleshooting (problem solving) skills and not all of them are ready, willing or interested in such a thing. The same refers to teachers also, especially the older generations who are for, e.g., a few years away from retirement and now find themselves in a situation where they have to learn new IT skills, better to say develop quality digital competencies. In some researches (Pesha et al., 2020), the results show that teachers use different educational platforms during online teaching, because those provided by the higher education institution are inefficient. As a result, it makes it necessary for students to switch constantly from one resource to another, which is not technically comfortable.

3. Conclusion

There are many advantages, but also many disadvantages of online education during COVID-19 pandemic. Although the key role is on the teachers as the creators of the educational process, students, as participants of the process, should also make an effort to adjust and embrace new ways of teaching and learning. Practice has shown that teachers and students are together in this situation, and both sides should express their opinions and all sorts of needs, to take the best out of online education during pandemic. The final goal is to have well educated, satisfied, mentally and socially developed experts in their field of education, ready for labor market, no matter what kind of education (onsite or online) did they went through.

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