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Advantages and disadvantages of virtual and classical training experience gained from COVID-19 pandemic

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Abstract

During COVID-19 pandemic restriction, the Trakia University closed and transmitted education in virtual learning environment using Moodle online platform and G Suit offered free from Google. At the beginning, that situation created shock in academic staff and students. Many professors and assistants did not know would they be capable to cope with requirements of situation or not. However, the governance of university gave immediate support as links for training, orders, definitions how is adequate to continue learning process, how should keep track with students and administration and so on. Moreover, the support and instructions were given to academic who has not been familiar with online platform to learn how to create and spread lectures, exercises, training quizzes, and how to build stable virtual channel with the students. It was needed just one-week and distant online training settled successfully in Trakia University. Because of that pandemic event, the virtual learning environment in the university enlarged and enriched with new digital information and possibilities to conduct lectures and exams through the video connections of virtual classrooms. Both academic staff and students became more familiar to work in digital environment and gain new knowledge. Furthermore, students were strongly engaged to the new situation and were supportive. The students created virtual communities as closed groups in Facebook, Messenger, e-mails, and phone calls. The lecture attendance rose due to epidemic restrictions and the recommendation «stay home, safe life». The distant learning flourished, students showed high responsibility making different homework's and tasks, they were very precise coming on time at virtual meetings, and on the end, the exam results were better. Nevertheless, the real communication was missing them; the advantages were more free time and working from any place where WiFi has.

Keywords: *online education, advantages, disadvantages, COVID-19 pandemic*

1. Introduction

The educational methodologies included *traditional classroom education* with books and blackboards, *modern classroom education* with whiteboards, projectors or audio-visual display equipment and digital boards in classrooms, *online education* using information technologies and communications. The online learning also has various types, as classical knowledgebase lectures and presentations, online support, asynchronous and synchronous training, hybrid training (Basilaia & Kvavadze 2020).

During the worldwide closure of schools and universities coming from coronavirus pandemic situation, the online education was the only acceptable and possible method to obtain education support with high quality, continued learning, diminishing the negative effects of social isolation (Basilaia & Kvavadze 2020; Frieß & Bayerl 2020; Chavarría-Bolaños et al 2020). Closure of learning institutions accelerated the development of the online learning environments (CAE Team 2020). Iwai (2020) reported that after the World Health Organization's designation of the novel coronavirus as a pandemic on March 11, universities across America are shutting down.

The pandemic affected over 114 countries, and led to chaos in university administration and students. The oldest professors cancelled classes, because of weak technical skill, trouble with

WiFi, or simply panicked teaching the full class online (Iwai 2020). The experience of paramedics' school of the City of Munich showed approximately the same result. The pandemic forced paramedic vocational school of Munich fire department and all other German schools to quit classroom teaching. The first step to cope with crisis was fast establishment of video and communication via Microsoft Skype. The virtual classroom fully replaced classroom teaching and all forms of social interactions, teaching methods and assessments were integrated into the virtual classroom. The conducted survey among students considered online homeschooling as a good alternative method of learning in emergencies, even cannot fully replace traditional classroom teaching. The academic governance concluded that perhaps the experience of this crisis could turn out to be the beginning of an innovative complementary teaching strategy (Frieß & Bayerl 2020).

   After COVID-19 pandemic, the Faculty of Dentistry in Costa Rica University reported that the key elements in a e-learning environment needed a quick enhancement with virtualization' possibility to better understand, and second, teachers needed further training in the application of virtual strategies (Chavarría-Bolaños et al 2020).

2. Education in Trakia University during COVID-19 pandemic

   During COVID-19 extreme situation, the Trakia University took appropriate actions followed the government recommendations, which complied with UNESCO IESALC endorsements for Higher Education Institutions encouraging students to continue learning, despite the temporary closure of educational institutions. The measures included avoiding alarmism or the spreading of false rumours or news, regularly use the website and social networks to promptly and truthfully inform the university community about COVID-19, cancel or postpone international exchange programs or trips abroad, cancel or postpone international academic meetings and conferences, and suspend face-to-face academic activities. The institution adopted remote communication system and was using the online learning platform, i.e. so called virtual learning environment. The virtual learning environment (VLE) has been creating locally in Faculty Techniques and Technology – Yambol during 2008 prior to become part of Trakia University. Hence, facing the lockdown of COVID-19 was much smoother and all students continue learning at distance having online training and support by their teachers. According to UNESCO (2020), from March 30/2020 year, over 166 countries have implemented nationwide closures, affecting over 87% of world's student population, 1.52 billion students, and about 60.2 million teachers have been no longer in the classroom (see fig.1).
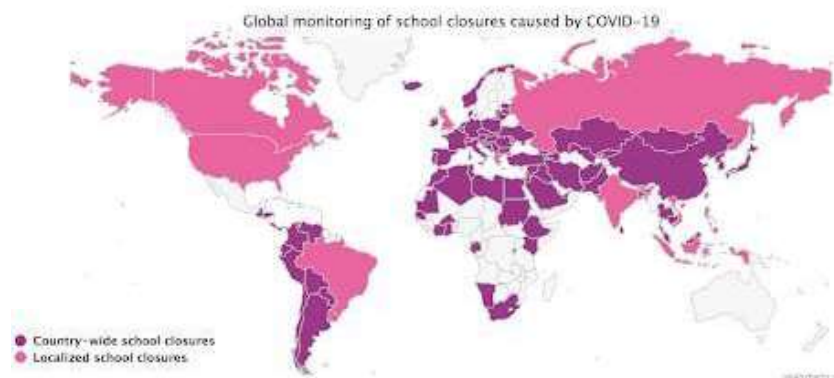

Figure 1 Countries that have shut down or localized the schools in the world (UNESCO 2020)

The instructions in connection with conducting of distance training in Faculty of Technics and Technologies (FTT) were:

1. In connection with the conducting of distance learning and forthcoming accreditation of a distance-learning environment in Thracian Electronic University (TrEU), was recommended all taught disciplines to have electronic courses in TrEU. The name of the course must correspond to the relevant discipline of the curriculum. Discrepancies to be eliminated.
2. The name of the course and the topics in the teachers' reports must correspond to that in e-learning.
3. It was recommended to replace the fully scanned materials published (book, textbook, manual, lecture notes, etc.) in the courses at TreEU with those developed by the teacher. Materials of foreign authors should not be distributed through TrEU. If a resource (book, textbook, lecture, video, etc.) is available online, a link to it can be published.
4. It was recommended that all distance-learning activities to be performed through the website of the TrEU, incl. video conferencing with BigBlueButtonBN.
5. Emailing materials to students and using other e-learning platforms was not recommended. It was desirable that teachers by 16.04.2020 to switch to the use of TreEU or to online training through Google Meet or similar video conferencing applications for conducting classes.
6. Practical and laboratory exercises that cannot be performed remotely should be replaced by others, e.g. partly with seminars, but if possible not to be postponed. A lecturer who proposes postponement of classes shall present the reasons for this in writing to the Head of the Department and the Deputy Dean for Academic Affairs.
7. The requirements of the teachers and the set tasks should not exceed the same as the load during face-to-face training. Tasks such as transcribing lectures and minutes, preparing papers after each lecture, etc. are inadmissible. A large number and volume of tasks and short deadlines should not be allowed. To take into account the fact that with the forms of asynchronous distance learning it is more difficult or not at all possible to master some topics from the taught disciplines.

Some of the working academic staff already was having experience using blended learning as methodology of teaching and learning. Nevertheless, even for them, some of the tools as for example video conferencing was new or not so often used, other just created and start to learn how to use VLE.

Results of different studies shows that the VLE is sufficient and can be successfully used in school or higher education in case of having appropriate technical environment and support (Basilaia & Kvavadze 2020). Also according to Basilaia & Kvavadze (2020), in distant teaching, teachers mainly used desktop screen to share presentation materials. We exerted the same practice, commonly was used video meeting for synchronous communication and education and as consequences of that period is the establishment of many new learning resources.

3. Advantages and disadvantages of virtual learning vs classical

Multiple differences exist between online learning compared to normal, but many authors agree that this type of teaching has more advantages, then disadvantages (Basilaia et al 2020; Ocak 2020; Almuraqab 2020). The enhancement of teaching methods in online learning classroom is one of the core advantages (Ocak 2020). There are tools, such as video conferencing systems, that can ensure the continuity of classes as effective as traditional ones and even more advantageous since they can offer a great deal of content, interaction, reinforcement, and real-time feedback during virtual sessions (CAE Team 2020). The other benefit is that the classes and assessment can be taken anywhere (Iwai 2020).

There are numerous benefits of online learning that are endorsed by many students, especially from part-time students, who have to work and study:

1. Students can acquire their knowledge and at the same time to advance in their careers by having the opportunity to participate in classes asynchronously and to work;
2. The existence of possibility for a flexible schedule for the study sessions, corresponding to their individual needs, and to choose the form of lectures - online in the virtual room offline, when they have free time;
3. Students, as in a distance-learning course, can progress at a pace that suits them, as well as to prepare at a time that is preferred according to their commitment;
4. It is not related to physical presence in the classrooms, students do not need to travel to the university to participate in classes, and i.e. they save time for travel, which gives them more time in the home environment to study or other activities;
5. Through online tuition, without leaving home, students save on transportation costs, especially if they are from a distant destination, from accommodation or dormitory rent, as well as other costs;
6. Online learning requires more skills for self-motivation and self-discipline, which is an advantage for those students who managed to adapt on time and succeed with their preparation.

There are a number of limitations and shortcomings of online learning, some of which are overcome when learning takes place in a virtual environment.

1. The traditional methods of feedback to students in the e-learning environment, but this is to some extent offset by web conferencing. The feedback from students is limited, but if desired, the teacher can achieve a maximum degree of communication to enable questions to be asked by students during lectures and exercises to bring the opportunities offered closer to the present lectures. It is true, however, that the learning process is significantly richer and more motivating in the present training for practical exercises, which depends to the maximum extent on the nature of the course;
2. The conducting of virtual online training can cause social isolation, increased stress and anxiety. This is true, but during COVID-19 it was the only possible way to conduct classes. In other circumstances, combining or alternating virtual with traditional classroom learning would be a good solution;
3. The lack of self-motivation and discipline can cause some students not to complete some courses. In the virtual environment, students have to organize themselves and there is no one to constantly encourage them to achieve their learning goals during classes. The teacher cannot monitor how they are doing, although he or she may offer to share their screen and explain if there is a problem. This requires additional measures and offering advice and assistance to students to continue successfully;
4. Lack of face-to-face communication can cause students to be unable to work effectively. They cannot develop students' communication skills, but this applies to cases where learning is entirely in distance form and not in blended learning, as in TrU.
5. In virtual learning, in some cases, teachers focus more on theoretical skills than on practical ones. The reason for this may be the virtual environment for conducting classes. This is especially true for practical exercises;
6. During the online training it is required to pay more attention to online exams because cheating prevention during online assessments is complicated. For this purpose, FTT - Yambol used secure browsers (Safe Exam Browser and LockDown Browser), video surveillance during the exams with Google Meet and BigBlueButton, various alternative forms of assessment.

The truth is, however, that there are disciplines in technical universities that cannot be taught and mastered without good practical training. For this purpose, a part of the classes at the end of the semester were held in person, in compliance with the anti-epidemic measures and with the

participation of a limited number of students. There are also options for the application of virtual laboratories in technical disciplines, if any.

The complicated nature of the technology and the overdependence on technology are listed as a chief disadvantages of online training or any distance learning, because that rise the risk in case of software or hardware malfunction, then the class session will come to a standstill, or can interrupt the learning process in all. The distance learning only limits online education to students savvy to computer and tech (Brown 2017; Basilaia et al 2020; Ocak 2020).

4.   Challenges for education in future

The pandemic restrictions diminished economic supply and demand, severely affecting businesses and jobs, generated disruption in educational opportunity worldwide in a generation and the will impact the livelihoods of individuals. Hence, education leaders should adopt a proactive approach contributing to the mitigation of the impact (Reimers & Schleicher 2020).

- *Preparedness of teachers and schools*;
- *Availability of technology*;
- *Adequacy of technology*;
- *Use of technology and preparedness of teachers*;
- *Access to effective online learning platforms*;
- *School practices for using digital devices effectively*;

The impact on education of pandemic is different in dependence from the economy of country under respect. The pandemic forced many countries to invest more in the online teaching delivery, but in developing countries was registered a virtual wash out of educational activities at all level since March 2020 (Yamin 2020). The humanity felt in completely new, unfamiliar situation with COVID-19 pandemic. During April 2020, more than 1.6 billion students were affected, representing over 91% of all students in the world (DeVaney et al 2020). The universities and colleges of higher education closed classical face-to-face education implementing distant, more often synchronous online. The methods of training were transformed to on an untested and unprecedented online distant education (Burgess&Sievertsen 2020). The experts classified the pandemic as a vast, new, worldwide experiment with severe influences on all sectors of life.

The shift of education from traditional classroom learning to distance learning might be one of the largest educational experiments to date because of the COVID-19 pandemic and universities lockdown. The results from 133 responses of online questionnaire showed that 55% of the students liked distance learning, 26% would like to study 100% online, while 49% favour studying through blended learning system (Almuraqab 2020).

The quick transition to the online form of education was successful and gained experience that can be applied in the future. Many other schools and universities obtained the same outcomes (Basilaia & Kvavadze 2020).

5.   Conclusions

Even the results from the end of study year were successful and both students and academic staff cope well with the new situation and its challenges, the conclusion is that social isolation influence strongly on education. The classical training has its advantages and many of students need it that organized and supportive method of teaching.

The online training during COVID-19 showed that the advantages that were achieved in this period can be applied in the future. To this end, they will be studied, analyzed and improved to meet modern technology requirements and student needs. Online virtual learning was worth the effort and hard work as it is an almost revolutionary advancement in modern learning.

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