

ONLINE EDUCATION DURING THE CORONAVIRUS PANDEMIC: ADVANTAGES AND DISADVANTAGES IN HIGHER EDUCATION

Pendidikan Online Selama Pandemi Coronavirus: Keunggulan dan Kelemahannya di Pendidikan Tinggi

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Abstract

Everything is changing rapidly, and the development of technology and information has changed significantly in the last few decades. Education, like other aspects of society, needs to change and adapt appropriately. Online teaching and learning is a new approach for the authors to use information technology via distance learning programs, especially in the way relationships and interactions altered between students and teachers or instructors when the Coronavirus disease (Covid-19) pandemic occurred. Mahidol University responded to the situation rapidly and announced that academics could use students' online teaching free of charge. The research aim is to identify the advantages and disadvantages encountered while applying the online method of instruction. Implementation, the online program has made teaching possible, but it has disadvantages that may decrease the quality of education. Nevertheless, it replaced traditional teaching methods by utilizing the web-based program, Webex Meetings, across the whole university. Conclusion, this new approach has changed and opened horizons earlier than the authors thought and far beyond our beliefs concerning traditional education methods for future generations.

Keywords: Covid-19, distance learning, Mahidol University, online, Webex

Abstrak

Semuanya berubah dengan cepat dan perkembangan teknologi dan informasi telah berubah secara signifikan dalam beberapa dekade terakhir. Pendidikan, seperti aspek masyarakat lainnya, perlu berubah dan beradaptasi dengan tepat. Pengajaran dan pembelajaran online adalah pendekatan baru bagi penulis untuk menggunakan teknologi informasi melalui program pembelajaran jarak jauh, terutama cara mengubah hubungan dan interaksi antara siswa dan guru atau instruktur ketika pandemi penyakit Coronavirus (Covid-19) terjadi. Universitas Mahidol menanggapi situasi dengan cepat dan mengumumkan bahwa akademisi dapat menggunakan pengajaran online siswa secara gratis. Tujuan penelitian ini untuk mengidentifikasi keuntungan dan kerugian yang dihadapi saat menerapkan metode pengajaran online. Implementasi, program online telah memungkinkan pengajaran tetapi memiliki kelemahan yang dapat menurunkan kualitas Pendidikan. Namun demikian, itu digunakan untuk menggantikan metode pengajaran tradisional dengan memanfaatkan program berbasis web, Webex Meetings, di seluruh universitas. Kesimpulan, pendekatan baru ini telah mengubah dan membuka cakrawala lebih awal dari yang penulis pikirkan dan jauh melampaui keyakinan kita tentang metode Pendidikan tradisional untuk generasi mendatang.

Kata kunci: Covid-19, pembelajaran jarak jauh, Universitas Mahidol, online, Webex



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Introduction

The past few years have shown the public that, during times of uncertainty, educational institutes need to show they can remain responsive and resourceful. Accordingly, all of them are required to find creative ways to maintain uninterrupted learning and studying. With many institutes and schools facing physical campus closures and the subsequent move to online learning due to the Coronavirus disease (COVID-19) situation, Mahidol University announced that academics should have greater access to online resources to facilitate distance learning (Mahaisavariya, 2020). The university believed that doing so would make it possible to keep coursework, teamwork, and student progress on track through home access for students, teachers, or instructors at no additional cost. Approaching online instructed course design for students during the emergency situation of the COVID-19 pandemic, teachers or instructors need to bear in mind at the beginning that this transition from the traditional classroom to online course delivery should drive student educational success, maintain their attention and boost their motivation as in the traditional classroom. However, it is always challenging to accomplish that.

Online teaching and learning usually mean students engaging with other students and teachers/ instructors or learning materials via an internet connection. At the moment, during this Coronavirus disease pandemic period, students can interact with teachers/ instructors and fellow students through webcams on the internet in conjunction with programs or applications like Zoom, Blackboard, Google Meeting, MS Teams, and Webex Meetings. Online teaching and learning or distance learning are increasingly becoming an alternative

teaching tool in education, especially during social distancing when students and teachers/ instructors are spread far and wide in relation to the area where the course normally takes place. Contrary to a traditional classroom setting where students and teachers/ instructors interact in real time, in an online teaching and learning setting, the interface could be asynchronous or synchronous, depending on the software used. Since students and teachers/ instructors are separated physically, an agreement could be arranged. A synchronous program is in real-time and facilitates online access between teachers/instructors and students, and allows all participants to post chat communications to other students over the online program (Arkorful and Abaidoo, 2015). A synchronous program also has a function for video, which is a powerful way to engage students. As education shifts to online learning, it becomes even more essential to maintain the relationship between teachers/ instructors and students, which is vital for effective study. With regard to asynchronous programs, instead of sticking to a tight schedule, this type of virtual learning allows students to choose a time best suited for attending classes, with asynchronous classes, including e-mail, discussion boards, and podcasts. Some programs even allow the recording of teaching activities and interactions for later review by students.

Online teaching and learning could provide as good quality as a traditional classroom. However, students who study online need more interaction with teachers/ instructors or even among themselves. Research showed they are less likely to become engaged and high risk of dropping out from the course. Finding various forms of student interaction is critical (Greenhow and Galvin, 2020). How online teaching and learning or distance learning works effectively is measured by

the amount of comfort that exists between students and teachers/ instructors. Prompt feedback and personal interest in student progress is a prerequisite from the instructor and, at the same time, a student is required to be pro- active in asking questions and raising concerns. Healthy dialogue and group discussions are the best ways to learn in a virtual classroom. In this case, a real-time program should be installed ahead of the schedule and used to replicate a simultaneous active classroom.

Implementation

The online teaching and learning environment is making a major contribution to educational requirements at this time by encouraging the general acceptance of the concept of knowledge as a vital element in social development and economic growth. Keeping pace with changes in technology and meeting the increasing demands of a knowledge-based culture in a country like Thailand will require a highly skilled and educated workforce capable of working collaboratively to find solutions to diverse economic, social and environmental problems.

The key to success in this situation is, in large part, continuing education, which means that online learning, with opportunities for active collaboration from students and university in this unprepared environment, will have an important role to play in meeting the challenges of the current situation and the future (Stansfield *et al.*, 2004).

The authors did not have time to investigate how online teaching and learning or distance learning works, but it is vital for teachers/instructors and students to understand the basics of how an online course functions before getting involved in one. As mentioned above, there are many online programs available along with what it takes to plan, schedule and organize the

virtual classrooms. However, we are familiar with teaching an online public health program so the authors' views may be particularly useful to other readers who are interested in teaching or learning in a public health aspect. Mahidol University has encouraged academics to use the Webex Meetings program on either personal computer or notebook desktop and mobile applications in tablet or smartphone. Academics at the Faculty of Public Health have used Webex Meetings since the university started the online program in March 2020 (Mahaisavariya, 2020).

Teaching and learning online have some things in common with the traditional classroom. Both have teachers/ instructors as facilitators who help and guide discussion among other students. Morgan (2016) mentioned some studies show online students slightly outperform their traditional classroom counterparts, but most evidence indicates that there is little difference in overall performance between the traditional and online classroom. Although there are also many other factors concerning personal teaching styles and preferences, this article can still help others to think about the virtual classroom during the Covid-19 pandemic period. Moreover, there are a few issues that come to mind for many academics who are not familiar with online teaching. How online teaching and learning or distance learning works efficiently is dependent upon how well the students and teachers/instructors use the available technology.

The Webex Meetings program has a synchronous approach and, therefore, students attend class at a scheduled time. The teacher or instructor, as host, can easily start the class and the class schedule is published in advance. The online classroom's meeting number is generated along with a password for prospective participants. Using the meeting number and

password, students can access the classroom through the link provided and a pop up reminder is sent via e-mail to all students prior to class starting. Students and instructors can participate using audio, video or text-based chat. Anyone can post and share documents to the class for discussion, which is the best hassle-free practice for interaction among others. Everyone can access information related to course work in real time from his/her personal computer or other communication device, for example tablet or smartphone. Using Webex Meetings, the authors are the hosts and set up classroom schedules in advance. The hosts can amend the classroom to accommodate other students or participants. The class can be live (synchronous) or prerecorded (asynchronous, with other program applications), so students can watch in their own time (asynchronous) or as a combination of both. Students can watch or listen (with audio feature with Webex Meetings) the class again if they require further clarification or comprehension of the lesson.

Webex Meetings has several useful features, such as turning off your microphone to listen to key moments in the classroom. A student or teacher/ instructor can remove his/her own voice or background noises, which allows them to concentrate on listening to others, especially during important parts of the lesson. The host also has the ability to turn off all other participants' microphones and cameras. In addition, each participant can turn off their own camera if they want to leave the classroom for, say, a bathroom or rest break. The program allows up to 1,000 participants to join in the same online fewer functions than other programs, but it is quite secure.

Alternative web-based online programs used by other institutes in Thailand include Zoom, Blackboard, MS Teams, Echo, Skype and Google Meeting or Google Classroom. These programs have a few different functions, but most are the same and are free of charge within certain limitations. For example, Zoom allows free meetings or online classrooms up to a maximum duration of 40 minutes.

The authors found that users will encounter various advantages and disadvantages whilst using these online programs. These are highlighted in Tables 1 and 2.

The point about the way instructors cope with technology may be a drawback which could continue since they envision that technology for online program should be user friendly and sometimes it is not. Likewise, not all students are well-equipped with a robust personal computer set up with compatible software and microphone, headphone, speaker and video camera ready to engage in team assignments or online activities. Many computers or notebooks have these gadgets as part of their basic packages but not all do; some of them do not have these accessory features built in, do not have enough memory space in the hard disk and, in some cases, the software is not updated. Asking students to buy the accessories for the program to meet the needs can lead to further problems especially for old machines that do not have enough USB ports. When working on the Webex Meetings online program, best possible practice is to consider the existing technology that students have been bringing to the traditional classroom, mostly smartphone and tablet. Students can easily install and download the program on those tools they use daily.

Table 1. Advantages of distance learning provided

Advantages
<p>Reduces operational costs and other resources for both the university and instructor/academic. Reduces transportation period.</p> <p>Self-tailored learning for student. Online learning allows student to learn at his/ her own pace, in one preferred medium and in a more comfortable environment. This is especially true for an asynchronous program.</p> <p>The scheduled course makes students more responsible because when he/she enrolls for a particular course, the subjects or topics and time for study are already well-planned and disseminated. The student needs to be available during the specified period and has to be on time with other classmates and instructor, especially when there are presentations by other students.</p> <p>Increased learner-centered approach. Learners can study tutorials or extra materials at their own pace and at the appropriate time for him/her. This is particularly important for students who are not able to follow the lecture, but have the capability to catch up and find missing information by studying at his/her own pace. Moreover, during discussion or chat not only participation in expressing their opinions and revealing their suggestions, but also daring to ask the questions may increase.</p>

Table 2. Disadvantages of distance learning

Disadvantages
<p>Requires rigorous time management and self-discipline from both students and instructors.</p> <p>Some people feel uncomfortable due to online technology incompetency, especially senior instructors.</p> <p>Technical problems, for example, the audio stability, the video continuity, and/or program update may interrupt and delay the lesson and may create confusion and frustration for the instructors and students, especially during the discussion and suggestions, including answering the questions.</p> <p>Instructors and students may have difficulty using certain types of tools for online connections according to their internet providers and the uncommunicative areas. Mahidol University has provided free internet access for several months to all students during the COVID-19 pandemic periods. Resources for online learning and self-studying, for example, personal computer, notebook, tablets, or smartphone may be limited, especially in developing and underdeveloped countries.</p> <p>Both students and instructors may lack motivation because they do not physically interact with each other in the online classroom.</p>

There are some limitations of online teaching such as teachers/ instructors do not have any guidance when implementing the online course. They need evidence-based guidelines for constructively planning and conducting their classes. The evidence-based guidelines are usually derived from pertinent and empirical researches as pedagogical practices (Hew and Cheung, 2013).

It is also important to be aware that there are certain disadvantages to distance or online learning. During the pandemic, psychological issues can occur and learning online can make some students feel lonely or insecure without face-to-face contact with friends or other students (Swanson, 2015), no matter how often they communicate with others by smartphone. Some students are uncomfortable with their reading and writing skills and consequently may have difficulties with distance or online learning courses. However, the most frequent problems of learning online concern internet connection speed and a reliable electricity source.

Conclusion

Online or distance learning is not new but is very useful in providing quick and easy access for both teacher/ instructor and student. However, it is not yet ready to take over from the traditional university classroom because all participants are still learning to use the various functions and features appropriately and correctly. The most important challenge of using an online program is to provide a quality education to all students. The instructor needs to be proficient in using this new technology to provide a quality learning experience. It is important that the instructors can recognize the systematic equalities that could exist in education and that students are receiving it equally regardless of where they are. So long as a good internet connection and

stable electricity source are available, university courses can be conducted in this innovative way during the lockdown period to the benefit of all university students.

Abbreviations

Covid-19: Coronavirus Disease of 2019; MS: Microsoft; USB: universal serial bus

Declarations

Ethics approval and consent participant
Not applicable.

Conflict of Interest

The authors declare that there is no significant conflict of interest that might have affected the performance.

Availability of data and materials

Not applicable.

Authors' contribution

Synthesized (CS, PK, VP), drafted (VP), and revised the manuscript (VP, CS).

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