Digital Learning and Teaching in the Age of COVID-19 Pandemic: Challenges, Opportunities, and Solutions

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ABSTRACT

The COVID-19 pandemic has swept the world and changed the map of education. Higher education institutions have been forced to close and hold digital learning classes to cope with governmental regulations prohibiting face-to-face interactions. This includes STIAMI Institute of Social and Management Science branch Bekasi City. With a total of 2593 students, 130 lecturers, and 60 campus administration staffs, civitas Academica of Institute STIAMI Bekasi have been inevitably learning and working from home since February 2020. Such change has caused challenges and opportunities. Hence, the following paper tries to dissect students', lecturers', and campus administrations' perspectives about digital learning and teaching. The method used in the research is qualitative with case study approach, incorporating in-depth interviews and observations. Based on the results, all parties perceived full digital learning and teaching as best decision to cut the pandemic chain, although found it as a challenge and have experienced mental health and technical problems, yet found positive outcomes that lead to education without boundaries. Thus, it is recommended to hold private and group consultations; interactive workshops; local-national-international cooperation's to ensure digital learning and teaching in the long run becomes bearable, productive, and beneficial for everyone involved.

Keywords: *digital learning, COVID-19, pandemic, case study, qualitative, challenges, opportunities*

INTRODUCTION

Since the COVID-19 virus was first identified in Wuhan China, by the end of December 2019, the virus has spiraled into a pandemic throughout the world, including Indonesia. The first two cases were confirmed on the 2nd of March 2020, comprising of a 64-year-old mother and her 31-year-old daughter who had been in contact with a positive infected Japanese citizen in early February.

Observing the increasing number of COVID-19 patients, the Indonesian Ministry of Education and Culture took immediate action by issuing Circular Letter Number 3 of 2020 concerning Prevention of COVID-19 in Education Units followed by Circular Letter Number 36962/MPK A/HK/2020 concerning Online Learning in the context of Preventing COVID-19. These regulations prohibited schools and higher education institutions to prohibit face-to-face classes(Wajdi, Kuswandi, et al., 2020; Wajdi, Ubaidillah, et al., 2020). Hence, the central campus administration of Institute Ilmu Social dan Manajemen STIAMI (STIAMI Institute of Social and Management Science) obliged and immediately shifted from traditional onsite learning into full online from Wednesday, 18th of March 2020, one day after receiving the second circular letter. The digital learning and teaching processes have been extended and is still in effect today.

Based on previous studies conducted by researchers, digital learning and teaching has been examined through several perspectives. Among them in accordance to level of preparedness. Almanthari, Maulina, and Bruce (2020) found students and teachers from lower and upper secondary schools in Indonesia face e-learning barriers, which they emphasized to be explored further as an effort to overcome varied types of e-learning problems while at the same time maximize benefits of e-learning during the pandemic. Schneider and Meirovich (2020) assessed the necessity of innovative content and teaching paradigms to allow adaptation to changes caused by the COVID-19 pandemic. Instead of only focusing on the transfer of knowledge, academic institutions have been urged to act as cultural agents of change who conduct real-time problem solving and decision making. Bao (2020) tapped into current online teaching experiences among university lecturers at Peking University, China. He identified five high-impact principles regarding online education instigated by the COVID-19 outbreak. The principles highlight the importance of designing suitable online instructions and student learning, effective distribution of online information, proper support by faculty members, high-quality participation, and contingency plan to cope with possible unexpected issues.

In this paper, the objectives focus on the following aspects: (1) To examine the readiness of students, lecturers, and campus administration staffs in transitioning to full digital learning and teaching because of the COVID-19 pandemic, (2) To evaluate the digital learning and teaching system developed by STIAMI Institute of Social and Management Science team, and (3) To identify the challenges and opportunities arising from the digital learning and teaching experience.

METHODS

The research used qualitative approach with case study method. From a total of 2593 students, 130 lecturers, and 64 campus administration staffs of STIAMI Institute of Social and Management Science branch Bekasi, 80 students, 40 lecturers, and 10 administration staffs were involved as informants.

To ensure all data collected were valid, the research employed a source and technique triangulation. Sugiyono (2009) explained source triangulation as comparing varied data with one common technique, while technique triangulation as the usage of numerous data collection systems to obtain data from the same source. In this context, the source triangulation was held by contrasting data of the three main subjects analyzed: students, lecturers, and campus administration staffs. The technique triangulation incorporated interviews, observations, and documentations throughout the research.

The gathered data were then analyzed using the interactive analysis model from Miles and Huberman (1994). This model divided the analysis into four steps. The first step was noting all findings from conducted interviews, observations, and documentations. The second step sorted important data from insignificant ones, while checking classification errors. The third step described classified data consistent with the research objectives. The fourth step focused on creating a final analysis to form the research result report.

RESULTS AND DISCUSSION
Perception about Transitioning to Full Digital Learning and Teaching

When questioned about their first impression to study, teach, and work in a full digital setting, students, lecturers, and administration staffs were in the same opinion that the campus has made the right decision by implementing the regulation set by the government. They expressed

their beliefs that digital based education was necessary to cut the pandemic chain, thus in the process enabling the achievement of a greater good for all.

Such positive view is however mixed with varied feelings. Students had doubts regarding their self competence in comprehending digital materials. Some were in distress predicting technical problems that could occur, such as having a slow Internet connection, whereas most felt a regret for not being able to meet classmates, friends, and lecturers, especially those who just started their college life after previously studying as high school students.

Lecturers perceived the shift as a challenge to alter their teaching patterns. There was a sense of unease because of the abrupt change. Limited technological skills and experiences became part of the discontent. But most were fine with the transition. Several lecturers conveyed their enthusiasm considering the limitless online resources and proper digital means they had available at home.

Similar to lecturers, administration staffs also perceived the shift as a challenge, but related to implementation of new service techniques. Anxiety was a term mentioned in relation to working isolated at home combined with numerous concerns about constituents' preparedness.

Evaluation towards STIAMI Institute's Digital Learning and Teaching System

STIAMI Institute of Social and Management Science owns a digital learning and teaching system named SSO. SSO is the abbreviation of Single Sign. Students, lecturers, and campus administration staffs alike recognized SSO as a relative well-developed digital platform. It is claimed to be light, simple, user friendly with suffice functioning features that ease all parties in sending assignments and announcements as well as conducting student-lecturer interactions.

Students expressed satisfaction in terms of on time scheduled classes and instant aid from the technology and academic team whenever an issue occurred. The system was admitted to crash and caused a slight stir during midterm, but it became one of the immediate solved issues completed through a shift login policy.

Lecturers enjoyed the freedom to combine teaching techniques and also highlighted immediate responses that they received when they needed help from the technology and academic staffs. The downsides mostly circulated around the lack of video conferencing option, limited bandwidth, variety and size of document uploads, including on-site reading without downloading.

Campus administration staffs were relieved to be able to access their accounts from different electronic devices, ranging from computers, laptops, tablets, and mobile devices. The downsides encompassed giving repetitive answers and aid to constituents while facing occasional lagging due to overload of SSO users.

Challenges during Digital Learning and Teaching

Students, lecturers, and campus administration staffs from time to time experienced Internet connection errors and physical exhaustion. The long period of online learning has begun to take a toll towards their mental health as well. Most constituents start to inherit a certain level of boredom and isolation.

Furthermore, students in some extent feel that they have less understanding related to certain learning materials compared to conventional on-site learning because of minimal dialogue and monotonous teaching within sessions. The non-sterile learning environments easily created multiple distractions from family members, relatives, friends, and other matters, including temptations listening or watching available media such as television and YouTube. Gradually, some students find themselves decreasing in competence due to lower in-class practices. Faced with numerous assignments and unlimited access the diverse digital resources, a typical challenge

arose in form of a copy paste culture. Instead of relying on self-critical thinking, students resort into taking raw information from various written data, thus developing a type of plagiarism behavior.

Lecturers on the other hand found themselves fall into a tedious routine, where they build lack of meaningful and delightful interactions with students. It became apparent that diverse teaching tools, materials, and techniques ought to be integrated. Over time, lecturers sense more cases of passive, indiscipline, and unmotivated students. This is coupled with gap of technological knowledge, which hinders lecturers for utilizing their full potentials online.

Regarding the duties of campus administration staffs, the main challenge lies in providing a comprehensive explanation for constituents. Without the ability to directly monitor daily students' and lecturers' activities, the staffs still try figuring out the best way they can provide service in excellence.

Opportunities during Digital Learning and Teaching

Despite of the numerous challenges faced, all constituents acknowledged a series of opportunities from digital learning and teaching. Efficiency in time, money, and energy were the top responses regarding advantages of this type of education. Some informants bluntly stated their delight for having the liberty to select any sort of outfit and place, including enjoying meals or snacks during sessions.

Students mentioned the excitement of gaining knowledge from not only local experts, but also national and international figures in varied fields. They found themselves more technology literate, where some of them believed that they also became more independent, discipline, and focused at learning and work. Besides adding new experiences and comprehension about numerous subjects via electronic apps, the students took into account how they have access to extensive learning materials under the tip of their fingers.

Lecturers appreciated the opportunity to maintain the safety of their families and themselves. Similarly mentioning about being able to become technology literate and independent like students, most lecturers conveyed the possibility to become more creative, using a variety of teaching methods, even elevating prestige by posting learning and teaching materials in public domains.

Campus administration staffs also noticed an increase of technology literacy. They elaborated how they could spread information beyond borders and certain time friends. Other than that, having more quality time with family members were frequently mentioned.

CONCLUSION

In conclusion, students, lecturers, and campus administration staffs at STIAMI Institute branch Bekasi are well aware of the importance to conduct physical distancing through digital learning and teaching in hope to significantly reduce the amount of domestic COVID-19 cases. The impression was generally positive regarding STIAMI Institute's decision to implement a full online program in accordance to related governmental regulations.

Developing Single Sign On (SSO) as main platform to learn, teach, and interact between constituents, all parties acknowledged the system as beneficial, but still mentioned varied flaws that need to be eliminated or enhanced. Therefore, this paper provides solutions as following:

1. To improve SSO, STIAMI Institute of Social and Management Science technology team should increase their storage bandwidth; provide options for a variety of document uploads, including sizes; include new features among them video conferencing, reading on-site

without downloading, instant presence listing and printing; provide academic and student mental health support services; integrate valuable links to internal and external campus resources; and build partnership with Internet providers and relevant potential partners beyond borders.

2. To overcome boredom and copy-paste culture, students ought to do daily positive affirmation; vary their sitting position and place of study; and become well informed about penalties against plagiarism.

3. To avoid monotonous classes, boredom, and lazy students, lecturers have to be innovative; include a variety of teaching tools and techniques; improve their creativity; increase their understanding of digital technology; build networks across areas, even nations; stay up-to-date; hold in-class breaks to do games, quizzes, and other fun and beneficial activities; conduct interactive question and answer sessions; and use anti plagiarism checkers such as Turnitin.

4. To minimize the need to answer similar questions over and over again, staffs would be best to develop more comprehensive electronic manual books and audio visual tutorials, which can be accessed and used by students, lecturers, and relevant parties when needed.

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