

Going virtual: Gateway of digital learning in education in the middle of the covid-19 pandemic

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KEYWORDS

covid-19
digital learning
going virtual

ABSTRACT "All hands-on deck" which means that certain situations require everyone to work hard to achieve a goal. This English idiom is very popular in various universities and is echoed throughout the world amid the COVID-19 pandemic. This idiom is interpreted as a necessity to move everything virtually as quickly as possible. Educational experts responded to this call with enthusiasm and creativity, ensuring that all students had the resources to continue their learning as they were forced to study remotely and practice social distancing, if necessary, they had to self-isolate at home. Apart from health security, this new impetus to move quickly from conventional systems to virtual learning provides an opportunity for a massive mindset change in carrying out learning in today's chaotic situations, but this will be a gateway to future resilient digital learning independence. Nevertheless, experts still have to consider the consequences if this is applied in the future even though virtual learning offers a refreshing and pedagogically innovative approach to facilitate learning.

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1. INTRODUCTION

Jones (2020) says that the global threat to public health caused by the emergence of the coronavirus has existed since the turn of the 21st century. From the 2002-2003 severe acute respiratory syndrome coronavirus (SARS-CoV) epidemic to the Middle East respiratory syndrome coronavirus (MERS-CoV) that was reported in 2012 (Lai et al., 2020) and now Coronavirus 2019 or Covid-19 has finally arrived and destroyed all sectors, including education. The new learning model and curriculum initiated by the new minister finally staggered and even staggered just because of the invisible spread of the virus. The implementation of physical distancing and Large-scale Social Restrictions (PSBB) resulted in schools and universities being closed and students being forced to follow the distance learning model. This has led to a paradigm shift in terms of learning throughout the world, including Indonesia. Most educational institutions worldwide leave conventional (face-to-face) classrooms for virtual digital learning.

The abolition of conventional learning in all educational institutions is the right step taken by most governments worldwide. It is a proactive and positive step to protect students from the possible risk of contracting COVID-19 because learning environments such as schools and universities are places to gather and interact with one another. They use public toilets to touch surfaces such as blackboards, tables, doors, and chairs. It follows (Sintema, 2020), which revealed that the spread and proliferation of dangerous viruses can occur in schools. Therefore, even though government policies feel stifling and narrow the space for

learning, this strategy must be taken to end the pandemic as soon as possible. If it is successful, learning will proceed normally as it was before. For this purpose, most educational institutions issue statements requiring all students to raise awareness and adoption of technology for digital learning (Perienen, 2020).

2. RESULT AND DISCUSSION

2.1 Going Virtual in Digital Learning

The impact of this global pandemic has crushed the hopes of 1.5 billion students in schools and universities in 188 countries by April 2020. They are in danger of not being able to participate nationally in the teaching and learning process as usual until it is not clear when it will end (UNESCO, 2020). People who live in urban areas that are identical to population density are known to be very at risk of covid-19 (Velven and Meyer, 2020), so the policy of implementing social distancing or physical distancing or even full lockdown has been taken by most countries to limit the exponential infection rate as well as break the chain of spread and the negative impact it will cause. For some universities, this completely negates the learning offered to students. As a result, educators are swiftly and quickly adjusting their learning provision by going virtual so that students continue to learn and engage even from a distance.

New things will certainly be responded to in new ways, too. Any change to virtual learning where internet users are the main facilitators requires integrating an effective e-learning platform, technology and pedagogy that allows

for easier, more effective and impactful learning opportunities (Harden, 2006). For example, most of the active Millennial generation students feel the impact of going virtual to carry out digital learning. They use social media such as YouTube and other technology-based media to cover the scope of their movement in seeking knowledge amid the current pandemic (Barry et al., 2016).

Social media has recently been enlivened by discussions from educator association forums where they enthusiastically respond to the covid-19 crisis and seek solutions on how to transfer learning quickly, share various learning assets, resources, and approaches, and last but not least, strengthen each other and support each other especially good health and mental. The positive response was shown by all parties while maintaining a strong academic community and how the relationship that had been running smoothly was maintained to encourage educators to look ahead, challenge, and adapt the best way while continuing to race against time to strive to produce new and innovative innovations and promote education for all students. His response to the change in learning that leaves the conventional way to the virtual shows educators' readiness and agility in taking a gap to educate the nation in the current situation and highlights significant uncertainty, especially regarding the quality and effectiveness of the learning.

Responding to poor-quality learning experiences, virtual learning must be made according to a curriculum design framework that focuses on pedagogical principles that are appropriate and beneficial for all students in virtual learning (Martin and Bolliger 2018). It means that the highest policy maker has to (1) understand the provision of intuitive interaction to students in a virtual learning environment, (2) consider good connections in social learning between educators and their peers, (3) ensure the synchrony of active facilities, learning support, and feedback, (4) maximize the use of the latest technology with learning assets to improve the quality and productivity of student education. Even so, educators should consider other things, such as supervision and student assistance in interacting, implementing, and utilizing digital technology. For example, educators upload 50-minute lecture recordings as core lecture material for students. This kind of approach is far from effective because the focus strength of most students is only no more than 5 minutes (Praherdhiono et al., n.d.).

The same thing was also conveyed by (Zureick et al., 2018) that students who watched uploaded lectures were easily distracted by other activities, such as social media. An educator must be smart in designing learning models by uploading lecture recordings virtually. Short videos with a duration of 5-7 minutes that are packaged and focused on one theme are interspersed with other learning objects such as quizzes, case studies, interactive technology, or task activities such as direct discussions, allow students to understand them better (Evans et al., 2020). The view stated (by Evans et al.) is shared by (Mayer and Moreno, 2003) that all these redesigns aim to maintain as much active involvement as possible and align with established multimedia learning theory.

Creating a pure learning environment using virtual learning requires a different approach to conventional learning (providing an interesting, interactive, effective, and cooperative learning experience) (Dreon et al., 2019). This can happen through active-based pedagogical learning. However, the need for learning like conventional meth-

ods (active, interactive) is also met when virtual learning comes. A special approach is needed by combining several synchronous sessions such as webinars or questioning and answering sessions. Several learning applications have facilitated many features into their learning systems that allow educators and students to learn actively and interactively. However, Gillet-Swan (2017) explains that students experience feelings of isolation, and their social presence is reduced by virtual learning. The same thing was also expressed by (Slagter van Tryon and Bishop, 2009) that with virtual learning, many students experience disconnection or even lose the natural closeness between students and teachers interpersonal and social interactions in the process of 'conventional' learning environments.

Higher education and the educator community positively responded to the certainty of providing students with continuous distance learning opportunities during the covid-19 outbreak. Implementing teaching and learning during a pandemic like this must still be greeted with high enthusiasm and creativity. This will change the paradigm of traditional thinking that has been imprinted in most of the mindsets of students and educators. They still depend on conventional learning models and are reluctant to see what virtual digital technology might bring to the student learning experience to advance existing pedagogies and approaches. Although the change to virtual must still be supported at this time (either fast or slow change), educators always use pedagogical principles built and embedded well so that providing high-quality virtual learning and an effective learning environment for students is not the best. Once conditions have recovered (face-to-face learning) is possibly implemented, educators should be able to test.

2.2 Digital Learning in the Covid-19 Era

Lockdown or quarantine has been implemented in several countries, such as Italy, Spain, England, Malaysia, Japan, Singapore and most likely several other countries will soon follow. This means that all sectors in all walks of life in the nation will be severely restricted and have even been closed with an unclear time limit when it will end. The closure of schools and campuses to prevent the spread of COVID-19 significantly impacts the teaching and learning process. So that students continue carrying out their learning activities at home, the Ministry of Education in each affected country implements almost the same policy: preparing concrete steps for support to facilitate the distance learning process.

Covid-19 is an unprecedented challenge to education worldwide. ISTE and EdSurge have created a site offering free tools and resources and an Educator Help Desk where experts will answer students' virtual learning questions to support educators and parents during extended school closures. ISTE & EdSurge is a best-in-class virtual learning centre to help students build and explore digital-age competencies. By working with leading educators and educational organizations, ISTE & EdSurge provides students with impactful and engaging learning that puts pedagogy first and delivers exceptional learning from the moment students start accessing it.

Among the digital learning produced by ISTE & EdSurge are (1) Learning Keeps Going, which provides four main features, namely: 1) Teacher and Leader: Guidelines, best practices, and strategies from experts in this field to help students in virtual learning, 2) Free Tech for Learning: Hundreds of companies make their digital education

tools free to schools during extended closures, 3) Ideas and Tips for Parents: Lessons, ideas and tips to help students, guide kids transitioning to virtual learning, 4) Webinar and Podcast: Virtual learning experts answer students' questions about seeking virtual learning during school closures (learning keeps going, 2020). (2) Tech For Learners and (3) Special Education App managed by Digital Promise. The following four lists of key features that the Digital Promise and Student Variability Project offer and are designed specifically for complex learners are: 1. Accelerated Reader 360: Motivate, monitor, and manage student self-reading practices with Accelerated Reader and watch as students develop a true love for read. It provides powerful insights into student literacy growth with real-time access to data, research-proven goal-setting tools, and "right practice" support to ensure the greatest growth is achieved by all, 2) Articulation Station: Helps teach students how to pronounce sounds in English with six fantastic and interesting activities, 3) Autism Core Skills: Autism Infinite Core Skills teaches interactive and engaging early academic, social and communication skills for verbal or nonverbal learners. Autism Core Skills quickly and easily adapts each lesson based on the student's interests, attention span and skill level 4) BeeLine Reader: BeeLine Reader makes reading on screen easier, faster and more fun. This feature uses a simple cognitive trick - a gradient of colours guiding the eye - to draw students' eyes from one line to the next. This technique increases reading speed and improves focus (Digital Promise, 2011).

Meanwhile, the Indonesian Ministry of Education and Culture is developing a portal and Android-based distance learning application, "Rumah Belajar". This portal can be accessed at learning.kemdikbud.go.id. Some great features that students and teachers can access include Learning Are Resources, Digital Classroom, Virtual Lab and Question Bank. Students and teachers of Early Childhood Education, Elementary Schools, Junior High Schools, Senior High Schools, and Vocational Schools or equivalent can use the Learning Center. The Ministry of Education and Culture has partnered with seven virtual learning platforms: Smart Class, Ruangguru, Sekolahmu, Zenius, Quipper, Google Indonesia, and Microsoft. Each platform will provide facilities that are accessible to the public and free of charge (Kemdikbud, 2020).

2.2.1 Smart Class

Smart Class answers Indonesia's national learning emergency amid the covid-19 pandemic. Students anywhere and anytime can access learning guided and accompanied by the teacher. This can be done with technology-based educational solutions such as Smart Class.

2.2.2 Zenius

Zenius is very helpful for students, especially those facing the UN and UTBK. This application is very helpful for students to formulate independent learning but still measurable and directed. Zenius also provides free access to over 80,000 free learning videos. Zenius also provides weekly trials for 9th and 12th graders to prepare for their next studies (to high school for 9th grade and University for 12th grade) even when they study at home (Fajrul, 2020).

2.2.3 Quipper

Quipper provides free services to schools, students, and teachers anywhere and anytime. The Quipper School service can also provide school assignments and exams. This includes videos, modules, and collections of national exams (UN) and computer-based written exams (UTBK) from the independent selection of state higher education (SBMPTN) for junior and senior high school teachers across Indonesia. This platform service is exclusively for affected schools and will be available starting Tuesday, March 17, 2020 (Quipper, 2020).

2.2.4 Microsoft

Microsoft Indonesia provides Office 365 access services for education. To take advantage of this service, schools only prepare an institutional domain as the digital identity of teachers and students. A feature Microsoft offers through Office 365 services is video conferencing, where teachers and students can conduct active and interactive learning (Abidah et al., 2020).

2.2.5 Google Indonesia

Through Suite for Education, Google Indonesia also plays an active role in the COVID-19 pandemic for distance learning. This learning is almost the same as the services offered by Office 365, namely video conferencing applications (active and interactive learning) such as Hangout Meet and Google Classroom. Until July 1, 2020, Google provides the full range of Hangouts Meet features at no cost, which includes live streaming capabilities of up to 100,000 viewers across domains and large gatherings of up to 250 participants per class through July 1, 2020 which can be recorded and stored on Google Drive for later access. "Through G Suite for Education, students can continue to learn even when internet access is slow or unavailable and wherever they are" xxxx (Abidah et al., 2020).

3. CONCLUSION

Going virtual is a step forward in digital learning that anyone can apply anywhere and anytime. In very limited circumstances, almost all the joint sectors of life are ravaged by covid-19, which is invisible but very dangerous and deadly. The education sector has also experienced a very heartbreaking impact. Almost all schools and colleges around the world are closed. Students are forced to do social or physical distancing so that they inevitably have to isolate themselves by staying at home for an indefinite period. Virtual digital learning is very helpful for learning during the Covid-19 pandemic.

Teachers and students will get positive and negative effects from virtual digital learning. Most students and teachers are greatly helped by virtual digital learning. Students and teachers do not need to leave the house to access education. Countless varied and interesting learning resources can be accessed anywhere and anytime, repeated for maximum results, and enhancements and additional features can be added to implement active and effective learning. Interactive has been embedded and can be used, so educational institutions must promote education with digital technology while integrating it with conventional learning. However, behind the speciality of this learning, it turns out there are still shortcomings in this learning model, includ-

ing this learning depends on electricity and internet networks, requires more costs, and naturally active interactions and communication are not fulfilled. Hopefully, going virtual will be a solution to advance and support the continuity of conventional learning.

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