

Key Opportunities of E-Learning during COVID-19 Pandemic: A Case Study in One Cambodian High School

Kassy Sey 

The University of Cambodia

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ABSTRACT

This case study was to investigate the key opportunities of e-learning during the COVID-19 pandemic in one Cambodian high school. A qualitative method was used in this study. There were three high school students participating in the interview process. Purposive sampling was employed. Findings highlighted that students faced many problems during their online classes. However, COVID-19 also provided good opportunities for them such as acquiring new knowledge, get used to online activities that they did not have experienced before, improve self-responsibility and flexibility, and become independent learners; moreover, the result of this study suggested that e-learning also helped the students to save their time, gas and money. They did not have to drive to school; students and teachers stayed home and used the internet wherever it worked. Further study should be conducted in higher education related to e-learning opportunities, and more people should participate in the study.

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Corresponding Author:

Kassy Sey, Ph.D. Student in Educational Sciences

Faculty of Educational Sciences, University of Cambodia, Phnom Penh, Cambodia

Email: kassysey098@gmail.com

1. INTRODUCTION

This study aimed to investigate the key opportunities of e-learning during the COVID-19 pandemic. Young generations need to explore and realize from this article how to change traditional classroom settings to modern ones. For example, before COVID-19, Cambodian students did not get used to learning online. However, students changed their norms during the pandemic because it taught many people in Cambodia. Before exploring the e-learning opportunities, let us distinguish between e-learning and m-learning. They have occasionally confused. Sometimes, they can be used interchangeably. E-learning can be considered a method through various electronic media [1]. However, Quinn [2] defined m-learning as a new learning technique using mobile devices.

Furthermore, Kinash et al. [3] defined m-learning as useful for educational purposes using mobile devices. According to Klassen et al. [4], mobile learning is important for teaching and classroom learning. On the other hand, e-learning seemed to be difficult for Cambodian students because they had negative and positive attitudes toward e-learning, such as using Zoom, for example, Sey and Em [5]. Sey [6] addressed that Cambodian students were moderately ready to use Google Classroom, one of the e-learning platforms during the COVID-19 pandemic.

When used strictly, E-learning can be summed up as any online educational activity [7]. In other words, e-learning is learning assisted by using digital technologies and content that involves some kind of interactivity, such as online interaction between the students and their teachers or peers. The delivery of instruction through e-learning is dynamic, allows for seamless resource sharing, and encourages student participation and cooperation [8]. This key phrase aids readers in comprehending the context of online education in Cambodia.

Therefore, this study discovered the key opportunities gained by students during the COVID-19 pandemic. Opportunities can be defined differently. According to Westen [9], an opportunity is a relationship between an agent or group of agents and a desired goal mediated by several surmountable challenges. If children have had enough access to teaching, opportunity is the primary concern [10]. This key phrase enables readers to understand opportunities made available due to the COVID-19 epidemic; for example, Cambodian students can complete e-learning even if they have never done it.

Moreover, people's ideas of when and where to learn have changed due to e-learning. It has even been asserted that people can now learn anywhere and anytime. All modes of learning and teaching facilitated electronically are included in e-learning. Whether or not they are networked, information and communication systems act as specific media for the learning process [11]. E-learning appears to be on the approach of replacing traditional classroom instruction. Furthermore, people frequently use technology to characterize online learning. For instance, Welsh et al. [12] defined e-learning as delivering information and instruction to people using computer network technologies, primarily over or through the internet.

Undoubtedly, e-learning is proliferating, which is unsurprising given that it allows everyone to study [13]. You can engage regardless of where you reside or what time of day or week best suits your schedule because most e-learning platforms are not time-sensitive. It enables professors and educational institutions to reach a wider audience while enabling students to learn quickly. Students who want to study at night or during the day can use e-learning. You only require a computer, Internet connectivity, and the desire to study.

Interestingly, E-learning allows a variety of learners, including those who cannot attend a conventional classroom, to receive a high-quality education. Facilitating learning becomes simpler by extending basic facilities, such as computer and internet service, from schools to convenient locations open to all types of people [13].

However, E-learning in Cambodia halted, but the MoEYS swiftly identified practical strategies to encourage learning outside the conventional school environment. The government launched a new e-learning project in collaboration with private

businesses. The ministry's Facebook page, YouTube channel, and e-learning website all offered taped lessons for pupils in grades one through twelve. Online education is uncommon in Cambodia, and its implementation is complex [14]. Since it is so new, Kaing [15] said that e-learning is not a common approach for Cambodian students and teachers. Sey [16] mentioned in his current article that students face many problems when they learn online during the COVID-19 pandemic.

On the other hand, this study will explore only the opportunities for e-learning during the COVID-19 pandemic gained by students. The findings will be presented based on the following main research question "What are the key opportunities of e-learning for selected public high schools in Cambodia during the COVID-19 pandemic as perceived by students?"

There has been a quick transition to online learning, distance education, and training due to the forced closure of schools. The crisis has caused a considerable change in teaching and testing practices to online platforms, which has led to the creation of new instruments that can guarantee ongoing instruction and improvement of students' abilities [17]. The immediate effects of closing schools on education cannot yet be predicted, and as new adverse effects of the pandemic emerge, they are likely to change. On the other hand, the long-term impacts are easier to anticipate. For instance, students not now supported by their teachers and schools are significantly less likely to obtain suitable employment and start a successful career. Sey [18] found that educators tried to handle problems during the COVID-19 pandemic to make online learning easier for students and teachers. Teachers also found it difficult when joining continuing professional development to improve the quality of teaching [19].

Finally, one of the first conclusions drawn from the research is how education has altered over this period. The production of new didactic and instructional materials has also been accelerated, resulting in gains for individuals who learn generally, regardless of age (including parents), as well as gains for teachers and students in the training process [17]. The rapid adaptation to significant changes and widespread adoption of new e-learning technologies, which do not always ensure a high and uniform level of quality education, have made it possible for those with access to quality technology to be more effective in the learning process using online education methods. In general, the challenges that have been posed have resulted in the development of new technologies, including more inclusive technological education formulas that are more accessible to a broader category of students, the development of new teaching techniques, the adaptation of school curricula, and the improvement of individual human, technical capabilities for teaching and learning. It is crucial to teachers' and students' professional development that they wish to learn these new things [20].

Since print materials have been around for decades, their usability has been proven. On the other hand, e-learning has a relatively short history, and usability factors are constantly changing. Usability refers to the consistency of a user's experience while communicating with a product or device, such as a Web site or software application, inhuman-computer interaction, and computer science. In contrast to print's simplistic physical format, E-learning input devices include keyboards, mice, touch screens, stylus

sticks, and verbal commands. While usability standards for Web-based materials, which comprise most of e-learning, have been established, they are still not commonly used. While the government, business, and higher education institutions are starting to follow these and other standards, the average peer reviewer is unfamiliar with these principles and may need to learn new skills to evaluate this new genre of educational materials [21].

Because of the availability of resources like technology infrastructure like computers, power, and the internet, educational institutions in developing countries have more opportunities than those in developed countries. According to Cooze and Barbour [22], the implementation of online learning depends on high-level support, budgetary assistance, faculty involvement, technological knowledge, and technology support. Various resources are available for e-learning in developing nations, where it is employed at all educational levels. All educational institutions can get financing from the British Educational Communication and Technology Agency (BECTA), which creates a wide range of opportunities for innovation, research, and growth, as well as the development of ICT strategies and knowledge transfer facilitators.

2. METHOD

The research strategy used for this study was qualitative. A broad question is posed, and verbal data is gathered through in-person and online interviews, then analyzed to look for patterns. This study aims to answer a question without attempting to quantify or examine potential quantitative correlations between variables.

Three participants in the study served as the respondents. A deliberate sampling strategy is used to select the study's findings based on the interviews' capacity to share information and produce information-rich output. Three interviewees for this case were chosen from a single private school in Cambodia [23].

Three participants in this study were the respondents. It is a qualitative study; hence, three participants were selected because they got experience in e-learning during the pandemic, and the researcher purposively selected them for the interview. Throughout the interview, the researcher took notes and recorded the answers. The researcher employed visualization to make the data analysis and interpretation easier for readers to understand.

3. RESULTS AND DISCUSSION

This result discussed the key opportunities of e-learning during the COVID-19 pandemic in the Cambodian context. There were many challenges of e-learning. However, this study only addressed the opportunities students gained from e-learning during the spread of the virus.

3.1. Demographic Data

a. Interviewee Profile

A thorough profile of each of the three participants in the critical informant interview is provided in Table 1 below. Two females and one male, respectively. 2 participants were 17 years old, and one was 18. They were currently studying in one Cambodian

high school. These three students excelled academically and experienced e-learning during the COVID-19 pandemic.

Table 1. Interviewees Profile

Participants	1	2	3
Gender	Female	Female	Male
Age	18	17	17
Grade	12 th grade Student	11 th grade Student	11 th grade Student
Years of Online Experience	1	2	2

3.2. Research Findings According to the Question

- a. What are the key e-learning opportunities for selected public high schools in Cambodia during the COVID-19 pandemic, as perceived by students?

Interview Results

Three respondents answered this research question, including one student from grade 12, and 2 students were purposively selected from grade 11.

The first respondent, a 12th-grade student, said that online learning is one of the most well-liked innovations in the contemporary world. *We are all using the internet to complete the things we would typically complete in a world without the web, whether working from home or learning online. Online learning has emerged as accurate for students unable to attend conventional classes at schools or colleges. Online learning was initially tricky for teachers confined to traditional classrooms, but after they mastered its fundamentals and operations, it allowed every teacher to interact with their pupils more effectively during the pandemic.* This can be implied that e-learning was complex only for the first time. Later, it provided good opportunities for students and teachers to learn and teach effectively.

Moreover, she added that *it had transformed our educational institutions and made them more favourable for students of all ages by helping them better adapt to the present environment. While online learning has numerous advantages, it should also be acknowledged that it differs significantly from typical classroom settings and can impair memory, particularly in young students prone to distraction. The only way we can take full advantage of the current scenario is to adhere to cyber etiquette, so it is crucial to do so as part of online education.* Finally, she addressed that *I started to learn to manage my time effectively. One good point of e-learning learning is the freedom to do all kinds of homework and tasks whenever it is most convenient for me. However, I must still possess strong time management abilities to finish my tasks by the due dates specified by my teachers. Since I interacted more with the other students than in traditional classes, which only needed them to arrive on time, online learning helped me develop better time management skills. As a result, I gained new knowledge from my schooling and boosted my time management abilities during this bad COVID-19 pandemic.* This can be explained by e-learning allowing us to control time management and be responsible for interacting with others on different platforms.

Furthermore, the second respondent added that *online classes might be helpful for students who have trouble focusing during class activities. Students might have more chances to participate in class talks when engaging online with their classmates. It was a personalized learning experience when I studied alone at home. Moreover, other students can also finish their reading assignments and submit them to teachers on different platforms whenever convenient. Surprisingly, she stated that wherever we go, we ensure we have an internet connection and study at any appropriate time.*

She continues that *education can be costly, but there are several methods for students to save money with virtual learning. You can save money on transportation if you do not have to commute to school. The typical student spends over \$1,000 annually on textbooks and course materials. Because virtual resources are frequently used in coursework, less money is spent on textbooks.*

The price of tuition can differ between campus-based and online programs. For instance, Drexel University offers a 25% tuition discount to students enrolling in its online School of Education programs. Most of the school's online courses also qualify for financial aid. Cost-cutting can be a massive advantage of online classes when combined with all these other sources of savings. This can be included because e-learning could save time and money and is more accessible than the physical classroom because students do not have to buy many books. They just learned by seeing teachers' computer screens.

The last respondent stressed that *lessons do not restrict my free time, so I can enjoy myself more or do anything I want. Additionally, e-learning saves money and time because I do not have to drive to school and back to my house daily. I used that spare time however I liked, whether with my family or advancing my career. All I needed was to continue my studies and earn my degree on my schedule. I usually ensured that I had a strong connection in my online class during the COVID-19 virus.*

Ironically, he noted that *online group work and discussions provided students better possibilities and conditions for working with their classmates. Moreover, when students submitted their work on the message boards, I saw some discussions and could learn from them even if we did not see each other's faces. When I took courses online, my friends and I could interact directly with teachers, which benefits networking and learning. In addition, I could upload assignments for review and contact my teachers through e-learning platforms such as google classroom and Messenger.*

Having received information from students studying in 12th grade in Cambodia, it can be understood that students faced many challenges; however, they tried to learn new things. They finally did it even if it was difficult for the first time. Sooner or later, they

found it useful for their education. The COVID-19 pandemic has taught Cambodian students to be techno-unknowledgeable to techno-knowledgeable. To sum up, there is also a chance to grab from when there is an obstacle. This is what the students should learn from this article.

4. DISCUSSION

The above findings are also supported by Naresh and Reddy [24] since there is a greater need for education studies, and e-learning is expanding in scope. Students can study anywhere, at any time, in a flexible and uncomplicated environment, thanks to e-learning. Students got new experiences during the pandemic. Moreover, in both developed and developing nations, user perception and readiness are more crucial to the effectiveness of e-learning than technology and other abilities. In addition to these elements, government funding, student motivation, and adequately qualified instructors are crucial for successfully deploying e-learning [24].

Another study by Kim [25] investigated e-learning opportunities in Korea. He found that e-learning provided the role of e-learning in facilitating newly emerging competency-based training, and students need to acquire new knowledge from it. In order to participate in the new educational strategy, African nations established several structures. In addition, Nwagwu [26] also looked into the characteristics of these structures and how Africa's distinct social and political qualities affect them. They examine the potential and difficulties that African e-learning networks confront before recommending how to address the difficulties and the opportunities. In short, e-learning also provided us with some good opportunities, such as learning new things and acquiring new abnormalities during the spread of the COVID-19 pandemic.

In short, when discussing the e-learning opportunities students gained during the COVID-19 pandemic, the result showed similar findings in the Cambodian context and in other countries such as Korea and Africa. However, Cambodian students deemed e-learning a new learning platform because they never used it before.

5. CONCLUSION

This study suggested that e-learning opportunities in Cambodian high schools were not insufficient. As seen in the above discussion, there were some opportunities for Cambodian students and teachers to learn from the spread of the virus. Namely, students in Cambodian high schools never used Zoom or any other platforms before, but during the COVID-19 pandemic, they were using those tools. Many educational institutions and companies in developed countries now use e-learning to successfully disseminate information and instruct and certify individuals, groups, and business entities in various subjects and possibilities associated with them.

One opportunity that the e-learning environment offers is that it can help students control the quantity and quality of social interactions, including its capacity to offer students a wide range of options for reciprocal communication with various tools for both written and oral communication.

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