

Constraints of Transition to Online Education in Schools during a COVID-19 Pandemic Evidence from Thailand

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ABSTRACT

In response to the rising concern about the current COVID-19 pandemic in Thailand, a number of schools canceled all campus activities such as workshops, conferences, and sports. Schools moved rapidly to transition from face-to-face instruction to an online delivery mode. This study sought to assess the constraints of transitioning to online education in schools during the COVID-19 pandemic in Thailand. Little research could be found on the subject, therefore this study intends to expand the understanding of the constraints of transitioning to online education in schools during a pandemic in Thailand. The study has employed face to face interviews with the director and a focus group of teachers and students from Kasetsart University Laboratory School Center for Educational Research and Development, Thailand. The study found that teachers and students alike expressed the importance of and their support for online education. The more personal one-to-one nature of online classes was found to be useful when used in conjunction with in-class sessions with larger groups to target reoccurring questions, interact with the quieter students, and to build “a sense of the course as a dynamic shared enterprise”. However, students and teachers also believe that students learning online feel a weaker sense of connectedness and belonging than on-campus students who regularly attend face-to-face classes. The key implication is how to develop a series of practical recommendations to facilitate the successful adaptation and implementation of a blended approach to learning delivery during the pandemic

Keywords

COVID 19, Online education, Blended learning, Constraints

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Introduction

The COVID-19 pandemic emerged at the end of December 2019 in Wuhan city of China. The initial outbreak of COVID-19 in Wuhan spread rapidly, affecting other parts of the country. The government authorities in Wuhan took unprecedented steps and locked down the city on January 23, 2020, to lower the risk of further disease transmission (Xiang et al, 2020). Within a few weeks, cases of COVID-19 were detected in several other countries, becoming a recognized global threat (Marrazzo et al, 2020). The World Health Organization (WHO) declared the coronavirus epidemic a pandemic (WHO, 2020). As of May 31, 2020, the virus had spread to more than 200 countries and infected more than 5,934,936 patients, resulting in more than 367,166 deaths. The top ten most affected countries; United States, Brazil, United Kingdom, Mexico, Italy, India, France, Spain, Peru, Iran, and Russia are imperiled to the peak with gigantic death tolls. The United States alone recounted skyrocketing figures such as 4,515,586 confirmed cases and 152,726 deaths as of July 29, 2020 (Worldometer, 2020 and Razzaq et al, 2020). To respond to COVID-19, many countries have now introduced travel restrictions (both incoming and outgoing) with the intention of preventing the spread of the epidemic. Public health experts and government officials have promoted several measures, including social distancing, self-quarantine for infected or at-risk individuals, and stay-at-home orders. (Bedford et al, 2020). Several countries have implemented localized school closures and those closures are expected to be nationwide (UNESCO, 2020). As of March 25, 150

countries had closed schools and educational institutions nationwide, impacting over 80% of the world’s student population. Efforts to reduce the spread of the COVID-19 virus among the younger and adult populations has prompted the widespread closure of schools, colleges, universities, and other educational institutions in many countries. In response to rising concerns about the current COVID-19 pandemic in Thailand, many schools have either postponed or canceled all campus events such as workshops, conferences, sports, and other activities. These schools have moved rapidly to transition from a traditional teaching method to online education.

The role of the online learning

The expansive nature of the internet and the accessibility of technology have generated a surge in the demand for web based teaching and learning (Chaney, 2001). Chaney also pointed out that distance learning is a rapidly expanding environment which allows users the flexibility of operating outside of the constraints of time and place. Online learning can be defined as “learning that takes place partially or entirely over the Internet” (U.S. Department of Education, 2010). Online learning appeals to a range of learners and is becoming more commonplace in elementary school, high school and into post-secondary education. Online learning is a more recent approach to the method of education, offering the learner more control over the learning process (Acton et al., 2005). This service can be delivered by a variety of electronic media, including the internet, interactive TVs and satellite technology (Govindasamy, 2001). Govindasamy

also suggested that online learning environments can be categorized into three central groups: fully web based, blended or hybrid format, and traditional courses using web based supplements. Fully web based courses are conducted entirely on the internet with no face to face interaction and all aspects of the course are conducted in an online learning environment. Hybrid courses consist of both web based and classroom sessions, with a varying degree of time allotted to the online and in-class sessions, depending upon the nature of the class and discretion of the teacher (Gilbert, 2015). The last programming format uses online technology as a medium for presenting supplemental material for traditional classroom study. Online learning appeals to diverse populations of students with ranging academic needs which traditional education classes may be insufficient or incapable of meeting. The demand for online courses is derived from a push “to provide quality education to all students, regardless of location and time” (Chaney, 2001). Online learning has the potential to create educational opportunities for individuals who may have faced unsurpassable barriers prior to the expansion of online educational programs. Empirical evidence on the effectiveness of e-learning has not been concluded. The importance of feedback is an area that both instructors and students stressed as being vital to success in an online course. The individualized atmosphere of online courses allow students and teachers to capitalize on person-to-person correspondences. Dawley (2007) pointed out that e-learning encouraged learners to seek information, evaluate it, share it collaboratively and, ultimately, transform it into their own knowledge. E-learning helps learners take responsibility of their learning, become autonomous, and to gain self-confidence. It enables introverted students to interact more freely, provides diversification of activities, fosters their intrinsic motivation and permits the acquisition of valuable study and time management skills.

In spite of the advantages of online learning, there are a number of drawbacks and potential issues that students may face while participating in an online course. Proponents of online instruction suggest that learning is impacted by the instruction method embedded within the medium of delivery, therefore asserting that the quality of instruction impacts learning outcomes (Rovai, Wighting & Lui, 2005). They also suggested that “online students feel a weaker sense of connectedness and belonging than on campus students who attend face-to-face classes. Also Almosa (2002) argued that online learning as a method of education makes the learners undergo contemplation, remoteness, as well as a lack of interaction or relation. It therefore requires a very strong level of self-motivation and time-management skills. These interactions help to develop critical thinking and problem-solving skills.

Blended learning: the new normal

Blended learning (BL), or the integration of face-to-face and online instruction (Graham 2013), has been widely adopted across higher education with some scholars referring to it as the “new traditional model” (Ross & Gage 2006). The 2017 New Media Consortium Horizon Report found that blended learning designs were one of the short term forces driving

technology adoption in higher education. (Adams et al. 2017). According to Mantyla (2001), blended learning is the use of two or more presentation and distribution procedures for improving both the content and the learners’ experience. Similarly, Fallery (2004) proposes that blended learning should be analyzed in detail to recognize to what extent it is able to encounter the amplified socialization requirements that seemed to be essential when e-learning was used. Also, Rovai & Jordan (2004) found that students in the blended course measured highest in a sense of community, similar to those students in the face-to-face section, but higher than those in fully online section. They stated “since students in the blended course exhibited similar sense of community and variability as students in the traditional course, offering the convenience of fully online courses without the complete loss of face-to-face contact may be adequate to nurture a strong sense of community in students who would feel isolated in a fully online course”.

A number of investigators have assembled a comprehensive agenda of transformative and innovative research issues that have found that BL results in improvement in student success and satisfaction, (Garrison & Kanuka 2004; Dziuban et al. 2011 & Means et al. 2013) as well as an improvement in students’ sense of community (Rovai & Jordan 2004) when compared with face-to-face courses. If properly implemented, it is a promising alternative learning approach to conventional and e-learning methods, and can improve student success, satisfaction, and retention (University of Central Florida, 2015). In addition, Graham (2013) argued that blended learning will replace the traditional approach in education because it maximized the best advantages of face-to-face and e-learning approaches. Despite these benefits of blended learning, Umoh & Akpan (2014) reported that non-availability, non-accessibility and students’ inadequate ICT skills towards the utilization of blended learning tools for teaching and learning is a barrier to its adoption.

School closure and management practices during coronavirus outbreaks

WHO (2020) declared the COVID-19 outbreak, caused by severe acute respiratory syndrome coronavirus (SARS-CoV-2), to be a pandemic on March 12, 2020. In most countries, attempts to reduce severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) circulation and new COVID-19 development have been mainly based on restrictive measures, including the avoidance of social interactions, the prohibition of movements within the national territory, and the closure of all nonessential activities, including schools. On March 18, 2020, the UN Educational, Scientific and Cultural Organization (2020) estimated that 107 countries had implemented national school closures related to COVID-19, affecting 862 million children and young people, roughly half the global student population. To reduce the transmission of COVID-19, many countries had instituted large-scale or national closure of schools by March, 2020. These actions appear largely based on assumptions that the benefits apparent in responding to influenza outbreaks are also likely to be true for COVID-19. Though evidence of COVID-19 transmission through child-

to-child contact or through schools is not yet available, family transmission has an important role in the outbreak. School closures are based on evidence and assumptions from influenza outbreaks that the reduction of social contact between students interrupts the transmission (Cowling et al 2007). The evidence for the effectiveness of school closures and other school social distancing measures comes almost entirely from influenza outbreaks, for which transmission of the virus tends to be driven by children. The Ministry of Education of the People's Republic of China (2020) suggested that schools need to consider how to keep students and staff at a safe distance from one another outside of class, particularly during arrival and dismissal, mealtimes, recess, and class changes. Guidance generally recommends handwashing before and after meals; encourages students to be spaced well apart and stay with homeroom groups; and sets standards for handling food and utensils and cleaning tables. Shared food and buffet-style meals are not allowed. Typically, students eat at their desks. Indoor and inter-school sports activities have generally been suspended, while outdoor playtime is allowed in small, supervised groups. Masks are required at all times for teachers, as well as for students. Shared materials are discouraged, but when used they must be cleaned before being used by other groups of students.

Research Questions

Based on the literature and the limited research on education learning, particularly in Thailand, this study aimed to gain students' and teachers' experiences of online learning by using both face-to-face interviews and a focus group approach. The research questions focused on two problem areas. The first research problem area focused on the problems of transitioning from a traditional education approach to online education during a COVID-19 Pandemic and the second looked at the benefits and impact of online learning for teacher-student interaction in class. The purpose of this paper is to identify key implementation components of a blended approach to learning delivery.

Research Objectives

The objectives of this research are (1) to explore the constraints of online education during the COVID-19 pandemic in Thailand (the investigators determined the conditional probabilities for teachers and students conforming to their experience of the benefits and impacts of online education in schools) and (2) to discover how students experience the teachers' practice and behavior towards an online education approach. Furthermore the third goal of the study (3) aims to assist in creating an effective blended learning environment for their students.

Research Methodology

Therefore, to achieve the research aims, the design selected for this research study was qualitative in using face-to-face interviews with the director of Kasetsart University Laboratory School Center for Educational Research and

Development. The interview was developed based on the literature review. The structured and semi-structured interviews were used to raise issues and new ideas that may not have been included in the schedule. The face to face interview with the school's director aims to develop what school direction would be proposed and/or implemented and to summarize any barriers identified and lessons learned from the school's practices. The focus groups with English teachers, heads of measurement and evaluation and students were also employed to gain the understanding of the constraints of transitioning to online education from their teaching and learning experience. In order to obtain teachers' and students spontaneous responses, none of the groups were informed of the topic of the interviews beforehand. All participants were asked to express their experiences of the benefits and impacts of online learning during a COVID-19 Pandemic. Content and thematic analysis were used for identifying, analyzing, and reporting patterns in the study.

Data Analysis

Covid-19 has had a major impact on all of our daily lives and we have all had to adjust and adapt in the face of significant challenges. The pandemic, in bringing a real risk to the physical health of our citizens, has led to an understandable increase in worry and anxiety across society. Schools especially need to recognise that given the potential for an upturn in the disease (and/or a second wave) that 'stay-at-home' measures may have to be re-introduced (at a school, regional or national level). Therefore, an online learning approach will be a necessary feature of a plan to reopen schools and will have to provide the necessary agility to respond very quickly to changed circumstances at local, regional or national levels. However, distance teaching and learning presents a particular challenge for students in special education and those who have a limited capacity to engage with learning in a remote teaching environment.

Research Results

Data analysis based on experiences from students and teachers

The focus group session was held with teachers who were administering online courses. Teachers were selected randomly to take part in the focus group. The discussion was focused on the benefits and the impact of online learning on teacher-student interaction in class.

The benefits of online learning for teacher-student interaction in class

Many teachers shared that the individualized atmosphere of online courses and the ability to capitalize on one-to-one correspondences were the primary benefits of online learning. On the topic of communication and providing feedback, one teacher shared that "We conducted my courses as google team platform conversations between me and each student, and we found that differentiating

instruction in a traditional classroom can be very difficult due to the simultaneous interaction with the students, by contrast addressing individual needs of each student is easier to do with online students, since the nature of the system is more geared to individuals.”

Furthermore, responding to students promptly is yet another important aspect of communication. Teachers and students alike expressed the importance of prompt and supportive feedback. The more personal one-to-one correspondences were found to be useful when used in conjunction with the class as a whole to target reoccurring questions, interact with the quieter students, and to build “a sense of the course as a dynamic shared enterprise”.

Another advantage of online learning is that it gives students the ability to gain more control over their learning experiences. It could be said that today’s students are increasingly taking their educational destiny into their own hands by seeking out learning opportunities outside of school and leveraging technological tools and applications to customize the learning process to meet their specific needs. Students tell us that online learning provides an environment where they can get extra help in a subject that is hard for them, review classroom material as many times as needed, or feel more comfortable asking their teachers questions. Indeed, online learning directly supports the three essential elements of the new student vision: learning that is socially-based, un-tethered and digitally-rich.

Teachers value professional development opportunities for online classes and the ability to customize their own teaching methods. As teachers are becoming more comfortable with online classes and the use of online tools through their own professional development and learning communities, we are seeing growth in the number of teachers interested in teaching online classes themselves. Teachers indicated their belief that students are ready to seize and shape their futures, and to do so by effectively leveraging a wide range of technological tools to implement their personalized vision for 21st century education.

The challenges of online learning on teacher-student interaction in class

There are a number of drawbacks and potential issues that students may face while participating in an online course. Academic rigor is an issue that is frequently called into question. When gaging the academic rigor or lack thereof of an online course, it is critically important to recognize the diverse varieties of formats that online education can be delivered in, the multitude of subjects online courses can teach, and the ever-growing population of students. The next issue is that students and teachers believe that the absence of peer interaction can negatively affect some aspects of the learning process. Students learning online feel a weaker sense of connectedness and belonging than on-campus students who attend face-to-face classes. Proper structuring of courses as blended classes or forming cohorts in the online environment both have the potential to eliminate some of the deficits that can be attributed to online learning and create a sense of community and belonging among the students.

Cultural restrictions are another area that one should be mindful of when designing an online course. Educational technology continues to represent the dominate culture, therefore limiting individuals who are not included in the dominate culture. These cultural restrictions should be noted considering that “social and emotional aspects of learning are as important as the technical information”.

The impact of peer interaction in class is an important reoccurring theme in the literature discussing online learning environments. A majority of students stated that there was a real difference in their learning when comparing a class session online with an in-class session. Some students stated, “We believe there is a difference because when in class we get the benefit of learning a lot more from our peers.” Students also suggest that a strong and active social life on campus can be “used to explain both high persistence and learning satisfaction” amongst learners, thus leading one to believe that the lower persistence rates of online courses are caused by a lack of community and social connectedness in an online learning environment. Clearly there is a difference in peer interaction and community building, so how can an online course structure bridge the gap and capitalize on social interaction using the tools available?

Another restriction that has been brought to the forefront is the issue of the ‘haves’ versus the ‘have-nots’. Technology is an area that can be easily taken for granted when it is intertwined into daily life, but for many, technology is not vastly used due to the lack of monetary means to gain access. Increasing the ratio of computers and other electronic devices to students will ultimately lead to the disadvantaged gaining access to the global knowledge that is available on the internet.

From teachers’ perspectives, maintaining motivation in an online course is yet another challenge that online learners face. Students who lacked independence and self-motivation overall had lower success rates than their counterparts. Students with a lack of self-regulation tended to not assign enough time to complete assignments, therefore turning in poor quality work or late assignments all together. Overall, “successful students tend to have stronger beliefs they will succeed, higher self-responsibility, higher self-organization skills, and better technology skills and access”. Students must also be capable of evaluating the motivating factors that will contribute to the continuance of momentum for the duration of the course. Students lacking motivation, whether intrinsic or extrinsic, can easily lose sight of their original goal and quickly become lost within the course.

Understanding learning styles and self-behavior is pertinent to determining ones success in the undertaking of an online course. Online course work tends to be reading and writing intensive, deterring some learners. Students with low reading abilities may find the heavy text and writing curriculum to be cumbersome. Another hurdle that some learners struggle to overcome is the absence of a teacher in a given place and given time throughout the duration of the semester. Some online learners experience a learning curve when first becoming acclimated with asking questions in various forums, instead of in a traditional face-to-face, classroom setting.

From teachers' experiences, they advise that the director of school should consider these questions at both the national and local levels:

- How can we make online learning opportunities available to more students?
- How can we help teachers better appreciate the benefits of online learning and learn how to facilitate online learning most effectively?
- What should schools be doing to prepare an effective platform with online learning tools?
- How should schools be tapping into the ideas and aspirations of students to inform local plans for online learning?
- How can parents help schools and students leverage online learning to enhance achievement and productivity?

Data analysis based on experiences from the school director

What are the risks associated with school closures?

Lockdown and social distancing measures due to the Covid-19 epidemic has led to closures of school and education facilities in Thailand. School closures could mean a disruption in the learning process, especially for highly vulnerable children in socioeconomic terms. During this time, teachers have been asked to supply students with teaching materials and instruct students directly via remote digital tools. The expectation is that most students learn from home under the supervision of their parents. In reality, the arrangement comes closer to remote learning in that teachers and schools still remain responsible for the learning content and outcome. Students face extremely different learning circumstances. For example, the lack of interaction between students and teachers breaks the learning process, and depending on how long the pandemic lasts, it may not be possible to catch up on subjects when schools reopen. Another high risk is the potential increase in dropout rates, especially among students from highly vulnerable households. The amount of time and quality of family support that a child receives when studying at home varies depending on family background.

Constraints of Transitioning to Online Education in Schools during a COVID-19 Pandemic

A. Students' progression against formal curriculums will slow down

When reopening the school with online learning, there was little time for teachers and students to prepare a strategy for transitioning. Syllabuses which are exam-oriented are no longer viable as tests and examinations have been put on hold. Much of the curricula cannot be adapted quickly to teaching online. Certain groups of students, such as primary school learners who are building the foundations for later learning, vulnerable learners or those supported by adults who often have not had access to a formal education themselves, may be particularly affected.

B. Many children will not have access to technology or a suitable learning environment at home

The digital divide means that internet and mobile network access varies greatly in low-income families, therefore, online learning will be easier for those with access and could exclude large groups of learners. A large number of learners in disadvantaged areas may have no electricity, some will have a radio but not a television at home, others will have basic feature mobile phones but not smartphones, and others will have only low-bandwidth internet available. When students have technical problems, they need someone to help them, most likely a teacher. Thus, when the technical support from teachers is not available, negative experiences will be brought up.

C. Teachers' ability to adapt to delivering education remotely will vary greatly

Some teachers are comfortable communicating with their students and producing teaching materials on social media platforms such as Line, Whatsapp and Facebook Messenger. Others may feel overwhelmed if they are suddenly required to use technology that is new to them especially if they are being held accountable to new standards. The school directors must be aware of their teachers' levels of ability and set expectations accordingly. The school might remedy some of this — for instance through flexibly adapting materials to different technological channels of delivery or by opening up channels to rapidly support struggling teachers through mentoring by colleagues— but teacher capability will be a core constraint, and cannot be quickly overcome.

D. Lack of self-regulation and self-motivation

While learners enjoyed the flexibility and convenience of online education, they also needed to keep in mind that they had to take some responsibility for their own learning. Due to the freedom and convenient nature of online courses, self-regulation and self-motivation are highly expected for students to be successful. When students can't control themselves they might miss important due dates and fall behind the course curriculum.

How can transitional education promote learning and teaching after reopening school?

All schools in Thailand have intensified their efforts to reduce the discontinuity of classes by introducing distance learning. The success of this strategy depends on the infrastructure available and familiarity of teachers with distance learning tools already in place. An effective and equitable implementation depends heavily on these aspects. For example, while Bangkok and other big cities with robust connectivity structures, have been successful in offering distance learning, many schools in areas with low internet coverage, and low rates of mobile phone or television ownership, are facing difficulties in advancing this agenda. The replacement of face-to-face classes by distance learning

must overcome the unequal access to online learning tools. In addition to the socioeconomic status of families, other unequal aspects like differences in internet connectivity among households in rural and urban areas must be considered. This difference can also be observed among private and public schools. The skills and experience of teachers in the use of distance learning technology is also a critical factor. Teachers in both rural and urban areas, for example, were asked to prepare content and offer online classes. Expanding distance learning requires a robust design to prevent a further rise of learning inequalities within and among education networks. A sudden transition to distance learning at scale without considering the capacity of schools to offer quality classes and that of students to have the structure and support in place to absorb this material tends to exacerbate the already high learning inequalities. Effective support for teachers in the transition to distance learning involves continued training and use of tools to monitor activities performed by students. However, even when the above is considered, a decline in learning is expected at least in the short term.

Discussion and Conclusions

This study was conducted by the interview and focus group methods to explore the constraints of online education during the COVID-19 pandemic and to discover how students experience the teachers' practice and behavior towards online education approach. Furthermore, the final goal of the study aimed to assist in creating an effective implementation of blended learning. Based on the results, it seems clear that schools need to offer a flexible online learning method which provides students with a variety of learning choices to make learning outcomes useful and exciting. Similar findings were also reported in the study of Lokanath, Tushar & Abha (2020).

Another result of the study shows that the features of online course materials, social media platforms, design-specific activities, process-based measurement and evaluation, student-student interaction and out-of-class sharing are the components of the online learning process. This is in line with similar studies suggested by Sloman, (2007) & So, (2009).

More importantly, the study also found that one of the primary challenges in online education is in developing a sense of community in the online environment. Therefore, both learners and instructors have to make a joint effort to get deeply involved in constructing interaction and collaboration to create an effective online learning community, as is corroborated with the relevant studies by Swan et al., (2009); and Yuan & Kim, (2014).

Finally, it is clear that the blended learning has the potential to overcome several of the disadvantages of both traditional methods and online learning. Blended learning provides flexibility in learning for both students and teachers. Integration of the virtual and physical landscapes enables both instructors and students to become learners, but this is most effective when there is institutional support through the provision of professional learning and the opportunity for redesigning courses to the most appropriate blend (Bliuc, 2007). However, according to Kintu, C. Zhu, & E. Kagambe

(2017) and Kudryashova, Gorbatova, & Rozhkova (2016) if the blended learning model was applied to the learning process it would be more effective with the transition of students to higher levels in gaining knowledge and developing skills..

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