

# Challenges of Teaching and Learning at the School Level During COVID-19 Pandemic: Lessons Learned from Thailand

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## Abstract

*This research aimed to study in-depth the experience of parents and students at the primary and secondary education levels in teaching and learning during the COVID-19 pandemic in Thailand, subsequently identifying challenges in its implementation before proposing recommendations to improve education execution throughout the pandemic and afterwards. A qualitative design was employed for this study through four sets of interview questions; tailored for the principals, teachers, parents, and students respectively. A stratified snowball sampling method was used, participated by five school principals, fifteen teachers, twenty parents, and twenty students from five regions of the country. The data collected were analysed with the content analysis approach. The findings revealed that due to the outbreak, the school had to rearrange the education environments to align with the COVID-19 precautions and adjusted the medium of education to suit the conditions of the students and their families. As a result, face-to-face teaching sessions were replaced with online or blended learning at home. However, the feedback received from the parents and students indicated that some families have issues in providing online facilities for their children, getting internet access in remote areas, setting up a supportive home environment, and allocating time for their children's online sessions. Considering the findings, it can be established that the main challenging issues were: the readiness of online infrastructure in remote areas; the availability of parents to assist young children in studying online; the computer skills of teachers; and teaching aspects such as the appropriateness of content design, the interaction between teachers and students, and evaluation in online lessons. The main recommendations in responding to the challenges were: the adoption of the new paradigm of blended learning; the preparation of school infrastructure, facilities, and learning materials to support online learning; and the coordination of parents to support students in online learning.*

**Keywords:** Challenges, guidelines, online learning, Covid-19 pandemic, primary and secondary education

## 1. Introduction

The COVID-19 virus emerged in 2019 before spreading worldwide, affecting every sector; including the economy, social activities, work practice, healthcare, and unquestionably, education. The outbreak has immensely caused a learning crisis in every country. Due to health precautions, educational institutions were forced to close down and they had to find alternative ways to continue schooling to resume teaching and learning activities without having face-to-face sessions. Thus, distance online learning was introduced as the main approach for education in this situation. However, the sudden shift sparked several problems including learning disengagement and learning loss. Reimers (2022) revealed that in addition to those two, there were other direct and indirect impacts of the pandemic on teachers, students, and families. For example, it diminished the ability of families to support children and youth in their education. Meanwhile, teachers had to modify their lessons to fit distance education and the nature of students learning from

home. Additionally, education systems and schools were also strained in adjusting to emerging new demands which they were unprepared and inadequately resourced for.

In Thailand, the virus was found by the end of the year 2019 and it had started to be recognised as a country-wide pandemic by late March 2020 when the school summer vacation was about to begin. During the first wave of the outbreak whereby the virus was yet widespread, schools in some rural areas were operating as usual while schools in urban areas were physically closed while online learning was executed to replace face-to-face education. For operating schools, the school administrators, teachers, and educational staff had to adjust their practices to be responsive to this drastic change. The guidelines from The World Health Organization (2021) became the primary reference in constructing the standard operating procedures to prevent the introduction and spread of COVID-19 in schools, whereby the safety of vulnerable children and essential school staff were at stake. The measures were also very crucial in ensuring that the children were able to adhere to procedures, especially the younger ones. Among the top priorities of change were hygiene maintenance, method of teaching, teaching media, and proper communication channels best suiting the students and parents of different conditions.

During the later waves of the pandemic in 2021, all schools in Thailand were affected and the closure of schools in the zones with a high concentration of COVID-19 cases was mandated. Therefore, the national teaching and learning approach was entirely adjusted to distance learning. Due to the abrupt change, a standardised online learning format was hastily introduced. Consequently, both teachers and students faced difficulty to familiarise themselves with the new system. Teachers had to prepare improvised lesson structures to be served online, while students had to set up devices with internet connectivity at home to be able to participate in the lessons. However, up to 50 per cent of Thai teachers lack the technical skills to operate digital devices such as desktop computers (Chang, 2020), which is crucial in online learning, and not all students can afford to provide the setup. Thus, these technical limitations from both sides made the online learning system not fully effective. Therefore, a teaching approach which combined both online and offline or on-hand methods was introduced, whereby teachers provide students at home with printed learning materials and exercises approximately once a week.

Regardless of the improvement, the quality of teaching and learning in each school was still inconsistent and problematic; depending on the technological readiness of both teachers and students and the parental support. According to Flores et al. (2021), from the perspectives of teachers and parents, internet connection and lack of knowledge on using online education platforms were the prominent problem of the implementation, followed by the learning motivation and participation of students. If the situation was not intervened, Kenan Foundation Asia (2020) projected that educational inequality and ineffective teaching practices in Thailand will continue to escalate. Similar problems also occurred in other countries. Japan, for example, was facing a huge disparity in online education due to the pandemic, depending on facilities both in schools and in student households (Iwabuchi et al., 2022). Meanwhile, in China, Zhang (2020) found that teachers faced ineffective remote classroom management; incompetency in online teaching; inability to make a comprehensive class assessment or formative assessment; heavy and multilayered workloads; and difficulty to meet students' learning needs.

More updated insights were needed to truly comprehend the existing problems in teaching and learning during the pandemic, especially from the viewpoint of the students and parents themselves; on how they adjust themselves to the new teaching approach and what challenges they still encounter. Additionally, inputs from the school administrators and educators were also critical to generate a holistic comprehension of the present situation in education. Thus, the researcher conducted this study focusing on primary and secondary education levels in Thailand to propose an inclusive recommendation on the best practices to minimise teaching and learning problems and to elevate the education quality in every part of the country after the pandemic; which will be valuable to policymakers, educators, school administrators, teachers and parents.

## 2. Literature Review

The COVID-19 pandemic has constrained educational opportunities for many students at all levels (Reimers, 2022). As the crisis was sudden and unexpected, most schools and educational institutions were forced to rapidly adjust themselves to the situation without being well-prepared. They have to turn to emergency distance learning and teaching practices (UNESCO, 2020) to resume educational activities. Multiple aspects of the education system were heavily affected; physical arrangement in schools; teaching and learning approaches; instructional media; readiness for distance learning; and learning outcomes of students. Earlier in the pandemic, some educational institutions coped by rearranging their physical environment and classroom size to maintain the teaching and learning approaches. Standard operation procedures (SOP) were outlined to observe the hygiene and safety of students and teachers while also considering the recommendation of World Health Organization (2021) to emphasise the children's health and well-being. The school also needed to provide water supply, sanitation, and good airflow; schedule lessons on health literacy for children and staff to promote adherence by enhancing understanding of the basis of the risk-mitigation SOPs; and smaller class sizes in the school environment to reduce transmission risks. In Thailand, some schools provided face-to-face classrooms two or three days a week only with smaller groups of students who take turns attending classrooms (Sungsri et al., 2020).

However, when the outbreak started to become unmanageable, all schools and educational institutions had to physically close and operate fully through distance learning instead of conventional face-to-face classes (Daniel, 2020). For online teaching and learning implementation during the pandemic, Zhao et al. (2020) suggested that principals and school administrators need to support the process by providing internet infrastructure and necessary technical resources; including software, hardware, technologies, equipment, environment, and online teaching platforms. To assist in the implementation, various instructional media and technology were introduced, including video call applications such as Google Meet and Zoom; pre-recorded audio-video lectures; virtual learning environments such as Google Classroom; and social media like Telegram, Messenger, WhatsApp, and WeChat (Hodges et al., 2020; Pokhrel and Chhetri, 2021; Reimers, 2022). Meanwhile, teachers need to adapt to these available technologies; learn how to use them; and adjust the pedagogy content and delivery accordingly. However, UNESCO (2022a) found that many teachers had limited and different levels of knowledge and skills in using instructional technology. Consequently, OECD (2021) suggested teacher training in information and communication technology (ICT) usage and instruction at the collective and official level for a successful transition from face-to-face teaching to the new distance education.

Due to emerging shortcomings, the quality of online learning was widely perceived as relatively inferior compared to face-to-face learning (Tongliemnak, 2020), even though the need for its implementation during the crisis was understood. Moreover, concerns arose about learning losses from the extended school closure, and about the educational disparity developed between students of different socioeconomic backgrounds (Tongliemnak et al., 2021). These concerns were not baseless, since UNESCO (2022b) had confirmed through a study in eleven countries across the world, the learning outcome of lower secondary students was impeded during the disruption, with more than 50% of teachers in all countries stating that students had not progressed as they would have normally expected at that time of year. Moreover, half of the students across countries reported that it was difficult to know their progress in the study. The inequality in learning opportunities was also factual-supported by studies from Reimers (2020), Kosaretsky et al. (2020), and Ho and Tay (2020), who found that students with low socioeconomic status were less confident in completing schoolwork independently and were more likely to feel unprepared for school closures. Additionally, Bagnall et al. (2022) implied that children from more disadvantaged backgrounds would rather have a home environment not supporting online learning than incur additional costs setting up for it due to financial issues.

The difficulty for parents in supporting their children's online learning sessions at home is another crucial concern. Pokhrel and Chhetri (2021) implied that parental assistance was a necessity in distance education; especially for young, lower-achieving, and vulnerable learners including those with special needs; in addition to advice and interaction from teachers. Similarly, Wang et al. (2020) highlighted that parents had a critical role in online education by supporting, motivating, and helping students to develop self-discipline skills. UNESCO (2022b) reported that in most countries, the majority of students did receive help from their parents or teachers on learning during the pandemic. However, there was still a portion of students who; at least sometimes, had no one available at all to help them with their learning. Consistent with the report, Bonilla et.al (2022) deduced from their study in the Philippines that although parents were willing to provide support, they faced difficulties due to unstable internet connection; lack of devices or gadgets; internet inaccessibility; and struggles in instructing their children at home. McClain, et al. (2021) also presented similar findings for parents in the United States whereby about 30% of parents had a difficult time helping their children in using technology and the internet for online learning at home. The situation was worse for low-income families, whose parents need to work to financially support their families and consequently cannot allocate the time for their children's online sessions.

From the reviewed policy and regulations, government guidelines, and academic papers, it can be deduced that the main obstacles to implementing teaching and learning during the pandemic were inadequate facilities and infrastructure; the digital unreadiness of students and teachers, and insufficient parental support. Fortunately, the threat of the COVID-19 virus was gradually decreasing and the SOPs were slowly loosened. Regardless, the pandemic was yet over and it may take quite some time to reach the endemic phase. Thus, as suggested by UNESCO (2022b), policy-makers and educational administrators need to develop mechanisms to support students, teachers, and schools (UNESCO, 2022b) so that online education can continue to be implemented together with onsite practices, which will also be beneficial for the future; pandemic or not. Since the students were also getting more familiar with educational applications by themselves, teachers should encourage interaction among the teachers and students for more fulfilling learning achievement and character development of students. The World Bank (2020) also proposed that all schools need to plan preparations for reopening while maintaining healthy school conditions and using new techniques to promote rapid learning recovery in key areas once the pandemic regressed. Similarly, UNESCO (2022b) recommended further research to understand the factors that led to successful and unsuccessful learning outcomes for schools, teachers, and students.

Hence, responding to issues identified from the past publications and this research was conducted with two main objectives: i) to study the present situation and perception of parents and students at primary and secondary education levels on teaching and learning during the pandemic in Thailand, and ii) to identify challenging issues and propose recommendations for improving teaching and learning during the pandemic-19 in Thailand. This research is hoped to provide a more recent outlook on education during the pandemic and a more effective guideline suiting the current situation.

### **3. Research Method**

This research was designed qualitatively, employing a one-to-one interview method. The context of this research was specified for the primary and secondary education levels only for more focused results. The population was divided between four different groups of stakeholders of the two education levels; the principals, the teachers, the parents, and the students. Four sets of interview questions were constructed for each group for more personalised and relevant data collection. A combination of stratified and snowball sampling methods was applied for the research for the convenience of the researcher while maintaining the generability of the results.

The data sampling started with principals who were studying at Sukhothai Thammathirat Open University, stratified into five different regions in Thailand; the north, the northeast, the east, the south, and the central region. Three principals from primary schools and two from secondary schools participated. Subsequently, applying the snowball sampling method, the principals recommended three teachers from their schools before each teacher recommended 20 of their students who each consequently asked their parents to also participate; totalling five school principals, 15 teachers, 20 parents, and 20 students. Participation in this research was voluntary and provided with consent.

The four sets of interview questions were used as the research instrument, tailored for the four groups of samples. The instrument for school principals and teachers included questions on the school's organisation in teaching and learning practices during the pandemic; problems and challenges they faced in distance teaching; and suggestions for improving teaching and learning during the period. Meanwhile, the instrument for students probed on their approach to partake in distance learning and the difficulties they confronted. For parents, the interview asked about the way they supported their children in learning at home, the barriers they encountered, and their suggestions for the school administrators and teachers.

The data collection started with the selection process according to the sampling method. After acquiring a volunteer, appointment dates were discussed according to the availability of the participants. For the principals and teachers, the interview sessions were either conducted face-to-face or online, depending on their preference and convenience. For the parents and students, the researchers and research assistants visited their households and interviewed the parents first, then asked for their consent to interview their school children within their supervision. All information and data obtained from every sample group were analysed through content analysis.

## **4. Findings and Discussion**

The findings and discussion of the study were presented in three main topics: the present situation, the feedback from parents and students, and challenging issues and recommendations.

### **4.1. The Present Situation**

The present situation of teaching and learning at primary and secondary education levels during the pandemic in Thailand as deduced from the findings were grouped into administrative practice and teaching and learning practices.

#### **4.1.1. Administrative Practice**

It was found that the Ministry of Education and Ministry of Public Health had already provided multiple guidelines since the beginning of the pandemic for principals to responsively manage schools for the urgent situation. These guidelines not only provide knowledge on COVID-19 but also suggested the best practices of personal hygiene and environment; including guides for health education in schools. Consistent with the guidelines, one of the policies introduced was a Sandbox Safety Zone in School. The policy includes school self-assessment on readiness before the semester starts; self-risk assessment of teachers and students; Antigen-testing of teachers and students before entering schools; and encouragement for all teachers and students to get vaccinated. The school principals applied those guidelines and worked hand-in-hand with the families of students to provide responsive administrative practices classified into three areas: physical preparation, building understanding for families, and teaching and learning management.

#### 4.1.1.1. *Physical Preparation*

The physical preparation was found to be mainly involved in maintaining the school's sanitary. Earlier in the pandemic period, while the Thai people had some information on COVID-19, the preparation of schools to adjust to the situation was chaotic. Sungsi et al. (2020) noted that the immediate coordination with local health officials for spraying disinfectant throughout school buildings and classrooms; while implementing multiple social distancing strategies for student gatherings, classrooms, catering, and movement through the buildings, was implemented rather hastily. They also needed more resources to intensify cleaning and disinfection such as installing handwashing stations with soap, providing alcohol-based hand sanitisers throughout the school, and cleaning toys and educational materials at least once a day. To support the measures and cover the costs of necessary supplies such as sanitisers, face shields, and masks, schools had to put extra work into seeking external funding. The schools also implemented protocols for screening children for fever and arranging space for students' desks to be at least one meter apart. Moreover, many schools restricted or cancelled extra-curricular, athletic, community, and mass gatherings or activities during school breaks as an official measure in reducing physical contact.

#### 4.1.1.2. *Building Understanding for Families*

Every school made the effort to build understanding for students and families about the changes in teaching and learning during the pandemic period. Parents gradually accepted the school practices; catalysed with additional information from the government to spread awareness on hygiene and sanitation, and with the school's consistent communication with parents about the need for their children to learn at home via technology. Schools also looked for ways to provide extra educational support for children and families at high risk by inquiring about the availability of the family to help their children study at home.

#### 4.1.1.3. *Teaching and Learning Management*

Due to the drastic change in teaching and learning practices during the pandemic, online education was necessary. However, some schools implemented a blending of different approaches for both online and offline learning; depending on the availability and readiness of individual schools. Deductively, teaching and learning during this period were classified into three approaches; **full online learning, paper-based learning at home, and blended offline and online learning** as detailed below:

- i) **Full online or remote learning** was offered to students in households with good connectivity and higher digital skills via online platforms such as virtual lessons, ZOOM, Microsoft Teams, Google Meet, and DLTV.
- ii) **Paper-based learning at home** was implemented for students with limited access to the internet, cell phone, or television, whereby the teachers provide learning materials with a study guide for parents to help their children study at home, as well as visiting their students' learning at home to ensure that they can access education service equally.
- iii) **Blended offline and online learning** was deployed in the period of the declining COVID-19 threat for schools that can provide face-to-face teaching. They arranged students into two groups and regularly switch between studying online at home and face-to-face at school while still adhering to social distancing practices. This approach aimed to mitigate the loss of learning with minimal risks.

This finding was consistent with Pokhrel and Chhetri (2021) who mentioned that the education systems and the educators have to adapt to the education emergency through various online platforms and are compelled to adopt a system that they were not prepared for according to the readiness of school facilities and the community readiness in each area. It was also confirmed that teachers played an important role in preparing lessons both online and offline for students to study at home effectively.



### ***4.1.2. Teaching and Learning Practices***

For teaching and learning practices, the findings are presented under as four sub-topics: teaching approach; media employed; communication between teachers and students; and learning evaluation.

#### *4.1.2.1. Teaching Approach*

Teachers employed a combination of online and offline approaches during the COVID-19 pandemic, whereby had to prepare lesson plans and various teaching techniques for both online and offline learning to fit the learning objectives. Moreover, most teachers used multiple methods and utilised more teaching technologies in their classes such as blended learning and flipped classrooms. Some teachers uploaded pre-recorded lectures and assignments to YouTube or Google Classroom while incorporating various online educational applications to make their lessons more interesting. Meanwhile, the teachers used the offline teaching method for students with limitations in acquiring internet access and computer devices. The teachers provided them with printed learning lessons and homework so that they would not have to incur any cost for similar education with their peers. Such an approach of providing paper materials to some groups of students was also found in other countries such as France, the United States, the United Kingdom, and Germany (Thorn & Stéphan, 2021).

#### *4.1.2.2. Media Employed*

Two schools located in the urban area applied modern distance learning tools; such as using online virtual lessons, ZOOM, Microsoft Teams, and Google Meet, and conducted activities online through applications including EPIC, Book Creator, and Deep. Meanwhile, the other three schools which were located in rural areas utilised a combination of online, mass, and paper-based media. Paper-based materials were given once a week to students who had no computer at home. Whereby, in households with television (TV); a type of mass media, the student can access an educational program funded by the government, DLTV. The program provided lessons in various subjects for students country-wide. This finding was similar to the practices in other countries, whereby Reimers (2022) mentioned that most countries relied on the provision of digital content on web-based portals, the mass media; such as TV and radio, and printed materials.

#### *4.1.2.3. Communication Between Teachers and Students*

While formal online classes were considered a necessity for students to study at home, it was also recognised that informal communication with teachers and friends through other media plays an important part in student development; similar to informal interactions outside classrooms before the pandemic. Accordingly, the teachers not only utilised different types of media to provide learning materials, instead, they were also used to encourage interaction and communication with their students; typically through telephone and social media such as Line and Facebook. In some rural areas, teachers personally visited students at home and were physically present when passing the lessons and worksheets.

#### *4.1.2.4. Learning Evaluation*

Learning evaluation was mostly determined by assessing assignments and quizzes after studying each lesson. Students with stable internet access can submit their homework online, while for those without it, teachers brought the assignments printed to the students at home and came again to collect them for evaluation.

#### 4.2. Feedback from Parents And Students

From the feedback received from parents and students on teaching and learning during the pandemic in Thailand, it was found that parents had significant roles according to the school's policy on distance education during the pandemic. Students have to study at home by following the methods designed by their school administrators and teachers, whereby most schools employ the online learning method. Each student with the assistance of the parents had to set up a space in their household as a classroom. Moreover, the parents had to provide educational gadgets; such as laptops or mobile phones, internet access, printers, and other related electronic facilities. Fulfilling their children's needs was an enormous change for most families. Some families managed to provide full support while some of them can provide partial assistance.

Among the participants, only eight out of twenty parents provided computer laptops for their children. The rest of them were only able to provide mobile phones, particularly those with low income. Unfortunately, some families; especially in rural areas, had only one mobile phone shared among two or three children, each taking turns using it for their studies. In terms of accessibility, the internet connection was not regularly stable in rural areas. The issue certainly caused interruptions in distance learning, especially when participating in synchronous online sessions. Moreover, some families had decreased income due to the pandemic and were unable to afford internet access for their children to study for up to one whole month. The findings were aligned with the findings by Bagnall et al. (2022) who reported that children from more disadvantaged backgrounds were more likely to be exposed to stressful home environments due to financial issues caused by COVID-19.

Meanwhile, in providing a proper learning environment, only a small number of parents managed to allocate a separate room as their children's study room while the rest could not. Most of the children stated that they had to study at the same place where they eat, play, and sleep. Some did not even have study tables and chairs. Understandably, since the learning environment was entirely different from those in schools, it was hard for children to focus and study at home; easily losing concentration on home matters. The situation was even worse for young children as they were incapable to study by themselves; requiring their parents to be with them and help in guiding them during the whole duration of learning activities. However, since most parents had to work for a living, they could not be with them every day, resulting in another problem to be solved.

Moreover, parents of students at middle and upper secondary school levels expressed their frustrations about being unable to offer academic advice. They described that when their children had some problems understanding lessons or completing worksheets, they can hardly give any suggestions due to their limited knowledge of the lessons. This situation may be the result of parents feeling worried, unprepared, and unconfident in their ability to assist their children (Thorn and Stéphan, 2021). Additionally, they had little time to review the learning contents with their children due to them having to divide their time between work and child learning during the school closure. The children themselves stated that it felt more difficult to understand the lesson when studying alone at home compared to studying with teachers and friends at school, hence reducing their learning motivation when at home.

#### 4.3. Challenging Issues and Recommendation

This section presented challenging issues and recommendations for improving teaching and learning during the pandemic in Thailand based on the data collected.



### ***4.3.1. Challenging Issues***

The challenging issues deduced from all groups of participants; the principals, teachers, parents, and students were categorised into general challenges and specific challenges in each level of education.

#### ***4.3.1.1. Challenges in General***

The study revealed that for organising online teaching and learning at every level of education, four main issues still needed to be addressed. The first one was on infrastructure unreadiness for online learning. It was found that in some rural areas of the country, the internet or WiFi signal was not yet available or was not stable. The second issue was the high cost of accessing to internet or WiFi. During the pandemic crisis, most parents obtained much lower incomes compared to the pre-pandemic period. So, many struggle to afford internet access in the long term. The third issue was the inadequate support of parents in providing laptops or mobile phones for their children to study at home. It was still found that in some families, there was only one mobile phone to use for communication and no notebook. When children had to study online, all children in the family have to share one mobile phone which belonged to their parents. The fourth one was unconducive learning environments at home. Home environment varied from household to household depending on socioeconomy status. In some households, they did not have separate rooms or areas, so the learning environment at home did not support or motivate student learning. However, there was an effort to resolve this issue in some areas, whereby a group of teenagers volunteered as mentors to assist learning in younger children. They coordinated with students who live in the nearby area to study together at their houses or shared community venues.

#### ***4.3.1.2. Challenges for Primary School Level***

The study revealed two main challenges at the primary school level; lack of parental participation and unfulfilled needs for interactive activities. The participation of parents in student distance learning was an alerting concern for primary school teachers. They stated that primary school students were too young to study online at home by themselves, and thus need extensive assistance from their parents, consistent with Wang et al. (2020) who found that parents had a crucial role when children learn at home. Apart from supporting student learning, they could help to develop self-discipline skills among children. Moreover, Pokhrel and Chhetri (2021) indicated that the lack of parental guidance may be the result of both parents working during the weekdays; unable to be at home all the time. The second issue was on the nature of young children who needed interactive activities instead of studying on the computer screen for an extended period. As reported by UNICEF (2021), COVID-19 resulted in the lack of opportunities for children to interact and play with others. Play and regular physical activity were essential for children because they contribute to the cognitive, physical, social and emotional development and well-being of children.

#### ***4.3.1.3. Challenges for Secondary School Level***

The study revealed four main challenging issues at the secondary school level. The first one was uneven computer skills among teachers. Teachers stated that some of them need to upskill to be able to choose and employ media and applications most useful to their lessons. The second issue was ineffective communication and interaction between teachers and students for online learning. Teachers stated that information on the schedule of learning activities had to reach every student on time. Moreover, in online learning sessions, active participation of students in the form of communication was required as if they were in face-to-face classrooms. However, due to the issues discussed in 4.3.1.1. Challenges in General, communication usually took longer than it was intended and some information did not reach all students. This finding was consistent with the study of Niemi and Kousa (2020) who found that almost half of the teachers faced difficulties in creating real and timely interactive relationships with all students.

The third one was time allocation for online lessons. Teachers warned that letting students watch computer screens for their online learning 7 hours a day. At schools, children can be in the classrooms for 6 or 7 hours a day without much problem since the classrooms allow physical and social activities; different from studying online at home. For online lessons, children had to stare at the computer screen throughout the session. This may not only affect their health but it can also cause learning fatigue, as suggested by Niemi and Kousa (2020). The fourth one was the indefinity of evaluation methods. In the classroom, teachers evaluated the learning progress of students through observation, assignments, quizzes, and examinations. In online learning, however, an appropriate, fair, comprehensive, and while also considerate evaluation approach was yet to be successfully implemented; whereby the same issue was highlighted in multiple studies such as those by Zhang (2020) and Niemi and Kousa (2020).

### ***4.3.2 Recommendations for Improving Teaching and Learning During the Pandemic in Thailand***

The following are the recommendations to achieve effective implementation of online teaching and learning during the pandemic; specifically in the setting of primary and secondary education levels, based on the findings.

#### ***4.3.2.1. Recommendations for Policy Makers***

**i. Provide funding for schools and teachers**

The schools incurred a high cost for infrastructure upgrades and the purchase of safety precaution materials. The government should provide funding or reimbursements for the said expenditure so that the schools can focus their resources to better the education implementation.

**ii. Improve nationwide digital infrastructure**

The availability and stability of internet connection in Thailand were dreadfully segregated between cities and rural areas, resulting in unequal learning opportunities; which also occurred in other Asian countries as well (Rivera, 2021). The government need to identify areas lacking access, establish telecommunication towers, and offer incentives for telecommunication companies to provide services in the said area to speed up the expansion of internet coverage.

**iii. Financial and material support for low-income families**

Low-income families may struggle to purchase internet services, provide educational gadgets, and dedicate their time or give up their careers for their children's online learning activities; all due to financial constraints. Government support in this aspect may help to reduce learning disparity, enable children to have proper learning support, and increase learning motivation.

**iv. Sponsors counselling programmes for parents and caregivers**

Parental support is crucial in distance education among young learners, however, many families have both parents working, and some simply lack the knowledge to assist their children's online learning. The government should sponsor or organise counselling programs for such families which should already be identified by the teachers. In the sessions, financial assessments can be conducted and counselling can be given on the choice to work or supervise their children at home. The counsellors may also aid in applying for financial support from various sources.

#### 4.3.2.2. *Recommendations for School Administrators*

**i. Continue improvement in online learning platforms**

Due to the current efforts already established for online education technology, it is unlikely that it will be abandoned and wasted once the pandemic ends. It is projected that online learning will continue to be provided at every level of education alongside face-to-face learning, thus, further improvement in its application and utilisation should be developed.

**ii. Adapt towards blended learning**

As suggested by Kenan Foundation (2020), schools should adapt to the new paradigm of blended learning by revising the curriculum contents to fit the online or offline setting and learning schedules with the help of teachers experienced in blended learning applications.

**iii. Prepare infrastructure, facilities, and learning media at school**

School administrators must prepare adequate infrastructure, facilities, and learning materials at school to support online and blended learning, especially useful to be used by teachers and students lacking suitable home teaching and learning environments.

**iv. Teacher education on digital literacy**

Teachers should be trained on digital skills continuously so that they can employ and can make full use of them in their teaching and learning appropriately. They should understand the advantages and limitations of educational technologies.

**v. Orient parents in providing support for online learning**

The school should organise a programme or orientation session for parents to gain insights into their condition and ability in supervising their children and provide relevant guidelines and encouragement on their significance in their children's education.

#### 4.3.2.1. *Recommendations for Educators*

**i. Participate in training and upskilling programs on digital literacy**

Teachers should catch up with educational technologies and regularly upskill themselves to proficiently utilise technology for online teaching. Literacy and familiarity with educational platforms applications can contribute to effective teaching and learning process.

**ii. Be updated with trends and preferences among students to increase learning motivation**

Platforms and tasks familiar to or preferred by the students can incite participation and interaction when incorporated into learning activities to a certain extent; resulting in a more effective process to achieve the learning objectives.

**iii. Diversify learning and communication media to decrease dependency on devices**

Spending too much time in front of the screen may be detrimental to children's health, thus teachers must prepare other learning activities independent of educational devices to intervene the screen time while still fulfilling learning needs.

**iv. Design interactive and fun learning to fulfil children's social development needs**

Young learners develop crucial social and logic skills through social interaction and playtime instead of passively sitting in front of the screen during online learning. Thus, teachers need to accommodate the needs through fun and interactive learning sessions.

**v. Orient and guide the students to be self-dependent**

Students should be oriented to understand the process of distance learning and how to manage themselves to be self-disciplined, responsible, and honest while studying on their own with minimal parental supervision.

**vi. Adjust means of evaluation for learning progress**

Evaluation of the learning progress of students must be adjusted to suit distance learning and conducted through multiple methods and groups of people such as teachers, parents, and peers due to the home-based learning implementation.

## 5. Conclusion

Similar to other countries in the world, Thailand was severely affected by the COVID-19 pandemic in various aspects, including education. Responding to the situation, the country adjusted teaching and learning practices at every educational level. This qualitative research aimed to study the present situation and practices in teaching and learning during the pandemic; specifically at the primary and secondary education levels. The findings reflected not only the perspectives of school principals and teachers but also those of parents and students. It was confirmed that every participating school had to convert the teaching practices from a face-to-face basis to a blend of online and offline approaches. However, the current implementation was still heavily flawed due to the drastic change and unpreparedness beforehand. At the currently decreasing COVID-19 threat, there were still issues with the readiness of students to study online alone at home and the involvement of parents in learning activities on top of other challenges. Thus, three sets of recommendations are proposed for the policymakers, school administrators, and teachers respectively; for more relevant and recent efforts to improve the teaching and learning process that can also be applied after the pandemic is over.

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