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Distance Education During Covid-19 Pandemic
at Komru Srok Sotnikum Primary School in Academic Year
2020-2021: Teacher's and Student's Voices on Challenges

A Mini-Thesis
In Partial Fulfilment of the Requirement for
Master's Degree of Education in Mentoring

Ean Ratha

August 2022

វិទ្យាស្ថានជាតិអប់រំ

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ប្រឈម

Distance Education During Covid-19 Pandemic

at Komru Srok Sotnikum Primary School in Academic Year 2020-2021: Teacher's and Student's Voices on Challenges

Supervisee : Ean Ratha

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August 2022

មូលន័យសង្ខេប

ការសិក្សានេះគឺជាការរាយរាប់របស់គ្រូ និងសិស្ស ស្តីពីបញ្ហាប្រឈម អំពីការអប់រំពីចម្ងាយអំឡុង ពេលជំងឺរាតត្បាត កូវីដ-១៩ នៅក្នុងឆ្នាំសិក្សា២០២០-២០២១។ ការសិក្សានេះ ត្រូវបានធ្វើឡើងក្នុង ទម្រង់ជាការណីតែមួយសាលាប៉ុណ្ណោះ គឺសាលាបឋមសិក្សាគំរូស្រុកសទ្រនិគម ដោយត្រូវបានប្រើប្រាស់ ការស្រាវជ្រាវតាមបែបគុណវិស័យ(Qualitative Research Study) ដើម្បីស្វែងយល់ពីបញ្ហាអោយបានសុី ជម្រៅ។ អ្នកស្រាវជ្រាវបានធ្វើការវិភាគទិន្នន័យ ដោយការសម្ភាសន៍ពាក់កណ្តាលគម្រោង (Semi-Structure Interview) ជាសម្ភារៈស្រាវជ្រាវក្នុងការប្រមូលទិន្នន័យពីគ្រូចំនួន៤នាក់ និងសិស្សចំនួន៤នាក់ ដែលបានអនុវត្តការបង្រៀន និងរៀន ពីចម្ងាយនៅកំឡុងពេលកូវីដ-១៩ ក្នុងទម្រង់ជាការបង្រៀនតាម អនឡាញ ដោយប្រើប្រាស់កម្មវិធីផ្សេងៗ ក្នុងការផលិត និងប្រើប្រាស់វីឌីអូក្នុងការបង្រៀន និងរៀន ព្រម ទាំងការប្រើប្រាស់សន្លឹកកិច្ចការជាដើម។ ការវិភាគទិន្នន័យបានពីការសម្ភាសន៍ ហើយត្រូវបានយកទៅចាប់ និង វិភាគទៅតាមផ្នែក នៃបញ្ហា (Thematic Analysis) និង បកស្រាយទិន្នន័យតាមរយៈការនិទាន ឬពណ៌នា (Narrative) នៃលក្ខណៈដួច និងស្របគ្នានូវអ្វីដែលអ្នកផ្តល់ការសម្ភាសលើកឡើង។ ការសិក្សា នេះបានរកឃើញថាការសិក្សាពីចម្ងាយក្នុងទម្រង់នេះ គ្រូ និងសិស្ស ប្រឈមនឹងបញ្ហាដួចជា ខ្វះខាតប្រព័ន្ធ អ៊ិនធឺណិត ខ្វះខាតឧបករណ៍បច្ចេកវិទ្យា ការគ្រប់គ្រងថ្នាក់រៀន និង ខ្វះខាតពេលវេលា ជាដើម។ លទ្ធផល នៃការស្រាវជ្រាវក៏ដួចទៅនឹងការរកឃើញរបស់អ្នកស្រាវជ្រាវដែរ គ្រាន់តែមានការបន្ថែមលើបញ្ហាប្រឈម ផ្សេងៗទៀតដួចជា ខ្វះខាតជំនាញ និង ខ្វះខាតការគាំទ្រៗ។ ក្នុងនោះដែរ ដើម្បីដោះស្រាយនូវបញ្ហាប្រឈម ទាំងនោះ ការសិក្សាមួយនេះ បានអនុវត្តនូវយុទ្ធសាស្ត្រមួយចំនួនដួចជា នៅពេលមានបញ្ហាអ៊ិនធឺណិត លោកគ្រូ/អ្នកគ្រូអោយសិស្សស្វែងរកនៅកន្លែងដែលមានប្រព័ន្ធអ៊ិនធឺណិតល្អ។ ចំពោះកង្វះខាតឧបករណ៍អេ ឡិចត្រូនិច គ្រូបានអោយអាណាព្យាបាលផ្តល់ជាឧបករណ៍អេឡិចត្រូនិច ឬ គ្រូផ្តល់ជាសន្លឹកកិច្ចការ ប្រសិនបើពួកគេមិនមានឧបករណ៍គ្រប់គ្នា។ លើពីនេះ នៅពេលមានបញ្ហាការគ្រប់គ្រងថ្នាក់រៀន លោកគ្រូ/ អ្នកគ្រូបានបង្កើតជាគោលការណ៍ថ្នាក់រៀន រាយការណ៍ និងផ្តល់ដំណឹងជូនទៅអាណាព្យាបាលសិស្ស ទៅ ដួបនៅផ្ទះរបស់សិស្ស ឬស្រង់វត្តមានជាប្រចាំ។ លើសពីនេះទៀត ពេលខ្វះខាតជំនាញក្នុងការបង្រៀនធ្វើ

សាស្ត្រថ្មីនេះ លោកគ្រូអ្នកគ្រូ បានស្វ័យមិត្តួមការងារវៃដែរមានបទពិសោធន៍ និងជំនាញក្នុងការបង្រៀន និង ស្រាវជ្រាវបន្ថែមលើបណ្ដាញសង្គមផ្សេងៗដូចជា Google, Youtube, និងតាមគេហទំព័រ Facebook ជា ដើម។ ការលើកទឹកចិត្ត ពីសំណាក់អ្នកពាក់ព័ន្ធដូចជា ក្រសួងអប់រំ នាយកសាលា អាណាព្យាបាល និង សហគមន៍ ក៏ជាផ្នែកមួយ ក្នុងការជួយគាំទ្រគ្រូ និងសិស្សអោយអនុវត្តន៍ការបង្រៀន និងរៀន ប្រកបដោយ ប្រសិទ្ធភាពផងដែរ។

ABSTRACT

This study is a survey of teachers and students on distance education challenges during the Covid-19 pandemic in the 2020-2021 school year. The study was conducted as a case study, a model school in the Satronikum district, using a qualitative research study to investigate the problem in depth. Semi-Structured Interview was used to collect data from 4 teachers and only 4 students who practiced distance learning and teaching during Covid-19 in the form of online learning and using various of programs to produce and use videos to teach and learn, as well as worksheets. We conducted a thematic and a narrative analysis to interpret the data from the interviews. The study found that in distance learning in this form, teachers and students face problems such as lack of internet access, lack of technology tools, classroom management and lack of time. The research results are the same as the researchers found in the literature review, only adding to other challenges, such as needing more skills and support. To solve those challenges, this study suggests some strategies, such as when there is an Internet problem, teachers/students find students in places with good Internet. For the lack of electronic devices, teachers ask parents to provide electronic devices or teachers to provide worksheets if they still need to get all the equipment. In addition, when there is a problem with classroom management, the teachers have developed a policy, and the class reports informs the parents or visit the student's home to attend class regularly. In addition, when there is a need for more skills in teaching new methods, teachers ask colleagues with experience and skills in teaching and research more on various social networks such as Google, Youtube, and Facebook. Encouragement from stakeholders such as the Ministry of Education, principals, parents, and the community is also part of supporting teachers and students to practice teaching and learning effectively.

SUPERVISOR'S RESEARCH SUPERVISION STATEMENT

TO WHOM IT MAY CONCERN

Name of program: Master's Degree of Education in Mentoring

Name of candidate: Ean Ratha

Title of thesis: Distance Education During Covid-19 Pandemic
at Komru Srok Sotnikum Primary School in Academic Year 2020-2021: Teacher's and Student's Voices on Challenges

This is to certify that the research carried out for the above titled master's thesis was completed by the above-named candidate under my direct supervision. I played the following part in the preparation of this thesis: guidance in research problem development, literature review, methodology, data analysis, and discussion finding.

Supervisor (Name): Mr. Stanislas KOWALSKI

Supervisor (Sign): ……………………………………….

Date: ………………………………………………

CANDIDATE'S STATEMENT

TO WHOM IT MAY CONCERN

This is to certify that the thesis that I "**Ean Ratha**" hereby present entitled "Distance Education During Covid-19 Pandemic at Komru Srok Sotnikum Primary School in Academic Year 2020-2021: Teacher's and Student's Voices on Challenges" for the degree of Master of Education major in mentoring at New Generation Pedagogical Research Center is entirely my own work and, furthermore, that it has not been used to fulfill the requirements of any other qualification in whole or in part, at this or any other University or equivalent institution.

Signed by (the candidate): ……………………………………….

Date: …………………………………………………………..

Countersigned by the Supervisor: …………………………………

Date: ……………………………………………………………….

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List of Abbreviations

ECE   Early Childhood Education

MoEYS   Ministry of Education Youth, and Sport

RGC   The Royal Government of Cambodia

UNICEF   United Nations International Children's Emergency Fund

UNESCO   United Nations Educational, Scientific and Cultural Organization

WHO   World Health Organization

CHAPTER 1: INTRODUCTION

1.1 Background of the Study

The announcement of Coronavirus Disease (COVID-19) pandemics by the WHO has made many countries around the world understand the problem and take more serious measures to struggle with the pandemic (WHO, 2020). The requirements of preventing the transmission of epidemics in the community is to stay isolated, so that on 16 March 2020, the Royal Government of Cambodia (RGC) took the decision to close all education institutions, including public and private schools for preventative measure against the spread of COVID-19 (MoEYS, 2020). On 7 September 2020, schools in Cambodia re-opened for face-to-face instruction, and the school year finished in November. Precisely, the new school year started again on 11 January, 2021, but due to a community outbreak of COVID-19, school buildings were closed again on 20 March, 2021. (MoEYS, 2021).

Responding to the problems that cause by the COVID-19, the Ministry of Education Youth and Sport in Cambodia launched distance education through the educational information network for all levels of schools. The continuous distance learning programs provided as a result of school closure due to COVID-19, required a new strategy to learning for students, parents and teachers (MoEYS, 2021). The teaching during COVID-19 pandemic is a new method for all teachers in Cambodia, and this method requires students to study with a small team at their home, by using worksheets and electronic devices such as phone and television. (MoEYS, 2021). Komru Srok Sotnikum Primary School in Siem Reap, like other public schools in Cambodia, moved to distance learning once again in March, 2021. Komru Srok Sotnikum Primary School is located in urban places, but it is only in district. In 2021, there were 21 classes, 25 teachers, and 994 students. At Komru Srok Sotnikum Primary School, some teachers used a variety of strategies and platforms for distance learning,

including digital platforms such as Facebook, Messenger, and Telegram, and some teachers used worksheets and handouts. According to the school director, some of the teachers created a Facebook room and used Facebook Messenger for synchronous learning. Messenger allows for video calling and sending some teaching videos on Facebook social media. Telegram is a text messaging service. This decision was made because it was easy for families to access Facebook and Telegram. The school also used worksheets or handouts for students who do not possess devices to complete the tasks, and used nationally televised lessons from MoEYS that could help students to learn at home as well.

1.2 Statement of the Problem

Both online-learning and paper-based distance learning pose several problems for teachers and students to which we have not found effective solutions yet (MoEYS, 2021). Moreover, even though online-learning was happening in the past, this sudden changes into online-learning has posed considerable challenges for educational activities globally, and particularly in resource-limited environments such as Cambodia, where educational institutions, teachers, and students are generally not ready for this unexpected disruption to traditional teaching and learning methods (Heng & Sol, 2021). Furthermore, despite the teachers in rural school decided to choose the worksheets or paper-based materials for their teaching and helping students to continues learning, there are some challenges that they have faced while using printed worksheets or paper-based learning material (Jaime, 2021). Similarly, in Cambodia, rural areas teachers and students do not have reliable internet access and are not capable of using emerging technology, making online learning a difficult, if not frustrating, experience for many (Flynn & Himel, 2020). Despite the Ministry of Education, Youth and Sport's efforts to provide online learning opportunities by broadcasting video lessons on television and other online platforms such as the MoEYS Facebook page, YouTube channel, and online-learning website, the number of students who have used online

learning is still low (UNESCO, 2020). In order to gather certain problems and solutions of distance education (worksheet/paper-based learning and online learning method), the researcher decided to choose one important topic entitled " Distance education during covid-19 at Komru Srok Sotnikum Primary School in Academic Year 2020-2021: Teacher's and Student's voices on Challenges "

1.3 Research Purposes

This study is intended to narrate teachers' and students' challenges during the implementation of the distance education in the era of COVID-19 pandemic at Komru Srok Sotnikum Primary School.

1.4 Research Objectives

The main objectives of the research are as the following:

- To describe the implementation of online-learning and paper-based distance learning during the COVID-19 pandemic in the academic year 2020-2021.

- To identify the challenges of distance education that teachers and students encountered during the COVID-19 pandemic in the academic year 2020-2021.

- To explore how teachers and students dealt with the challenges of distance education during the COVID-19 pandemic in the academic year 2020-2021.

1.5 Research Questions

In order to achieve the objectives of this study, the three specific research questions as the following:

1. What was the implementation of online-learning and paper-based distance learning during the COVID-19 pandemic in the academic year 2020-2021?

2. What were the challenges of distance education for teachers and students during the COVID-19 pandemic in the academic year 2020-2021?

3. How did teachers and students deal with the challenges of distance education during the COVID-19 pandemic in the academic year 2020-2021?

1.6 Significance of the Study

This study has significance for educators, administrators, and other stakeholders. Because this study intends to describe the challenges of distance education during COVID-19 pandemic, it will provide the important information about possible and real causes that might be beneficial for educators and other researcher to propose effective solutions in case a similar situation happens again. In addition, it will establish strong foundations for success and improving educational outcomes. Moreover, it can improve the allocation of resources in education and the quality of instruction. Furthermore, it also strengthens family and community to support educator and administrator in education.

1.7 Operational Definition of Key Terms

- Online-learning is a type of learning by using technologies to create, foster, deliver, and facilitate learning at any time and from any location (Abdon et al., 2007, Alqahtani & Rajkhan, 2020).

- Paper-based learning or worksheets learning materials is a questions, exercise or task paper for learners. A worksheet is a paper's sheet given by a teacher to students that lists tasks for the students to accomplish (Chujo, et al., 2012).
- Asynchronous online learning is a method of learning in which the teacher and the students are not involved at the same times (Amiti, 2020).

1.8 Overview of the Study

Chapter 1 introduces the background of the study, problems relating to the study, research aims with research questions, and significance of the study. Moreover, this chapter defines some main key words relating to the research study.

Chapter 2 reviews some literatures that study about the challenges and solutions on the implementations distance education during COVID-19 pandemic. The problems and strategies that some authors have found in their studies are shown in this chapter as well.

Chapter 3 presents the methodology used in order to gather the data. Precisely, this chapter includes sample size and site, tools used to collect the data, how the data is gathered and analyzed, ethical consideration and scope and limitation of the study.

Chapter 4 presents the findings of the study which are about the challenges, and solutions on the implementation of distance education during COVID-19 in academic year 2020-2021 from both teachers and students-participants.

Chapter 5 analyzes, interprets and discusses the findings of the study which have just indicated in previous chapter.

Finally, the conclusion and implications of this study are provided in chapter 6.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

During the prevention of COVID-19 pandemic, the Ministry of Education Youth and Sport in Cambodia launched distance education through the educational information network to broadcast lessons on social media and national TV for all levels of schools (MoEYS, 2020; MoEYS, 2021). In that condition, considering the difficulty for teachers and students in regions with lack of technological infrastructure and television for facilitate in education, the MoEYS produced the worksheet and videos for distance learning and using a lot of platforms for online-learning (MoEYS, 2020). Last but not least, it is completely new forms of education in Cambodia which replacing from face-to-face education to digital ones, and it made some challenges for both educator and learner during COVID-19 pandemic (MoEYS, 2021). The most important challenges of teacher in implementing the distance education are poor internet access and lack of classroom management and experiences with distance education (Sari & Nayır, 2020; Bayram, 2021; Wollina, 2020).

2.2 Definition of Distance Education

Distance education is a separation of teacher and students which use of technical media by two-way communication (Keegan, 1980). Moreover, distance education is a method of learning in which the student and teacher are separated by place, and sometimes by time. It is currently the fastest growing form of domestic and international education (Gunawardena & McIsaac, 2013; Roth et al., 2020). Since distance education provides both online and offline access to education system, it can be said that it is more important than online-learning, especially during the COVID-19 brake out which people need to say isolated (Dahya, 2017; Korucu & Alkan, 2011).

2.3 The Implementation of Distance Education

According to UNESCO, 70 percent of teachers and students engaged in distance learning by using different strategies such as online-learning and paper-based learning and others. About 22 percent of teachers and students taught and studied every day; 35 percentages taught and studied 4 to 5 days a week; 30 percentages, taught and studied 2 to 3 days a week; and 13 percentages, was only once a week. Unfortunately, the level of effort for distance learning was low among students. as many as 37 percent of them studied 30 minutes to 1 hour per week; 26 percent studied 1 to 3 hours per week; 12 percent3 to 5 hours; and 8 percent less than 30 minutes per week (UNIESO, 2020).

A. Online-learning

To continue studying, both educators and learners have been using a lot of applications such as Zoom, Google Meet, Youtube, Facebook and whatever was available (Simamora, 2020). Moreover, the Ministry of Education has authorized the implementation of electronic education services by using Microsoft Office software 365 (Microsoft Teams), Google meet, Google Classroom and Hangout Meet / Zoom, BlueJeans and more (MoYES, 2020). In addition, there are two ways of doing online-learning: asynchronous and synchronous (Amiti, 2020).

Synchronous

Synchronous learning is a type of education that combines face-to-face interactions between students and teachers with internet tools like conferences and chat. Synchronous provides online learning environments that are very interactive and use web conferencing tools. (Skylar, 2009). Moreover, MoEYS used ICT and social networks, including Telegram, Microsoft Teams, Zoom and Messenger to support distance working, distance education for officers and teachers of provincial, district and school Levels provinces, in cooperation with Save the Children Cambodia (MoYES, 2020).

Asynchronous

Meanwhile, asynchronous learning is a type of learning in which teachers and students work indirectly or not at the same time, using an independent learning approach. Some subject matter is designed and displayed on learning management system (LMS), or email systems, online discussions, Wikipedia, videos, articles, and other platforms such as Telegram and Facebook messenger (Sturm & Quaynor, 2020; Tarman, 2020). Students have access to the teacher synchronously, asynchronously, or both (Hunter & St. Pierre, 2016; Ohlin, 2019; Richardson et al., 2020). Asynchronous learning provides students with a flexible environment which is self-paced with learners accessing course content using a variety of tools such as CD-ROMs, streamed prerecorded recordings of audio or video web, and audio podcasts (Skylar, 2009). Moreover, MoEYS created and posted live lesson videos on Krou Facebook Page of the Ministry of Education, Youth and Sports. More than this, Ministry prepared the inclusion of videos with educational contents on the Official Facebook Pages of MoEYS, or on Yutube.com/moeys. Furthermore, MoEYS also updated subdomains of https://elearning.moeys.gov.kh and https://beep.moeys.gov.kh/. Moreover, MoEYS made Lesson Videos on elearning.moeys.gov.kh for 6 courses, from Grade 1 to 6, including using sign Language. It disseminated teaching videos and exercise videos for online-learning, in cooperation with good learning general incorporated associationonline-learning on website https://km.khanacademy.org/, with aim to promote studies for students in grades 1 to 6 on Khmer Literature and Mathematics during prevention of the spread of COVID-19 (MoEYS, 2020).

B. Paper-based distance learning

Worksheets were created by the Ministry of Education, Youth and Sports to support teachers 'and students' teaching and learning during the outbreak of COVID-19.

Students can learn and do their own work on the worksheet with the support of their families. Moreover, some teachers provided worksheets and reviewed then provided feedback on the worksheets, to facilitate small group learning among their students. And some teachers provide the paper-based worksheet to all their students because they do not have enough devices to study online. (MoEYS, 2020). The worksheets at the primary level are made up of two subjects: Khmer language and mathematics (MoEYS, 2020). After getting the worksheets, the teachers give them to the students to study and complete. Then they collect the worksheets in the next week and correct all back (Jaime, 2021).

2.4 The Challenges of Distance education

A. Online-learning

1. Lack of Internet access

The challenges are that some teachers and students cannot access the internet connection well during their teaching and learning. Moreover, it also related to the location of their houses which cause many problems that make teacher cannot provide the link of platform that used, videos or online works to support their teaching and students cannot join the class or got the works from their teacher (Aliyyah et al., 2020; Hermanto & Srimulyani, 2021; Sari & Nayır, 2020). Teacher and students in rural areas do not have reliable internet access and they are not capable of using emerging technology. That is a frustrating experience for many making online learning more difficult (Flynn & Himel, 2020) Lack of internet access in Southeast Asia poses challenges for students to study online amid COVID-19 pandemic (Jalli, 2020). During COVID-19 pandemic, online-learning has caused stress, frustration and isolation among students who have lost the chance for peer and teacher interaction (Daniel, 2020). In Cambodia, students in rural

areas do not have reliable internet access and are no capable of use emerging technology, (Flynn & Himel, 2020).

2. Lack of Devices

Teachers complained about a lack of software, video recording equipment for teaching and administration, and overrun prices. Furthermore, teachers' capability is limited due to a lack of experience in lesson planning, preparing digital teaching clips, videos and photos, and they cannot join their classes. Moreover, the mechanism for student data management, attendance monitoring, and score management was still unclear (MoYES, 2021). Moreover, Cambodian teachers in rural areas do not have reliable internet access and do not have devices for using emerging technology, or making online learning (Flynn & Himel, 2020). Furthermore, limited technological infrastructure and capacity, socioeconomic factors, a lack of experience conducting assessment and supervision in an online mode, increased workload for teachers and education staff, and incompatibility with some specific subject matters or cultures have all been identified as challenges (Adedoyin & Soykan, 2020). Students face problems related to documents, study materials, expensive but poor internet services, lack of devices, as well as communication barriers between the management, teachers, and students (MoEYS, 2021).

3. Classroom Management

Classroom management for online-learning is a developed version of classroom management. It is known as an important point in optimizing students learning process in terms of facilitating academic and socio-emotional and in leading class control. The e-learning classroom need to be involved by teachers and students by using some platform or apps. It limits the socio-emotional learning process as every student tries to solve the

problem which have face during class by their capabilities to understand the instruction from the teacher (Lathifah et al., 2020). A lot of things might be prepared such as human resources who can manage classes well, lesson plans, onlineof learning materials, learning methods, classroom arrangement, guidance services, teacher collaboration, academic administration, counseling services and parents as well as evaluation activities (Sianipar et al., 2021). In a study by Arslan and Sumuer in 2020, the classroom management problems were mostly associated Twitch hardware, software and evaluation problems in the virtual classrooms. Some of the classroom management problems were related to background noise, internet connection, access to the course, lack of digital content, lack of interaction, short class time, voice transmission, privacy and security, and inappropriate use of software. Based on the findings of the study, some implications for practitioners and researchers were suggested (Arslan & Sumuer, 2020).

B. Paper-based Distance Learning

1. Learning Time

Lack of time for them to teach and learn also causes problems for students to understand the lesson (MoYES, 2021). The apparent lack of impact power of the paper-based was mode of delivery Specifically in relation to inquiry-based teaching and learning (Fraser, 2017).

2. Support learning at home

Towards parental engagement, teachers and including teacher educators, school directors, education administrators and local authorities asked to estimate the percentage of parents or caregivers able to support distance or home-based learning (MoYES, 2021). More than this, the paper-based/worksheets learning has serval problems for teachers such as, spend more times to support, hard to give and collect the worksheet; for students such as struggle with the exercise, hard to summit and get the worksheets (Jaime, 2021).

3.   Quality instruction

To develop new knowledge and skills through self-learning by using papered-based worksheet, teachers need to give feedback. A lack of consistent feedback to students by teachers, which is a big challenge for students in their study (MoYES, 2021).

2.5 Respond to challenges

A. Online learning

1.   The strategies to deal with Internet access

Additionally, (Heng & Sol, 2021). More than this, the government should develop online educational resources that align with the national curriculum and help teachers in the process (Vlachopoulos, 2011; Aliyyah et al., 2020).

2.   The Strategies to Deal with Devices

To solve these problems, some of the families had the television at home then the government created an educational TV program through the government TV network to help children learn from home for school level from primary to higher school level (MoYES, 2021; Aliyyah et. Al., 2020). More interestingly, the ministry education also created the papered-based worksheet to help students who do not have devices to study by themselves and to get from their school (MoYES, 2021).

3.   The Strategies to Deal with Classroom Management

To make effective classroom management for online learning, the teacher needs to create rules and routines for students to follow, make the interaction between the teacher and the students promote the class activities, provide instruction by motivation and engagement and create discipline to control the disruption that probably occurs when the learning and teaching processing (Lathifah et. al., 2020).

B. Paper-based Distance learning

1.   The Strategies to Deal with Learning Time

Education institutions create videos of teaching and live on National TV. Moreover, the Ministry of Education set a new method to help students who cannot come to get the paper or worksheet by asking teachers to gather the students to meet and study in small groups (MoYES, 2021).

2.   Support learning at home

The government also announced on national TV, radio, social media, and to all the schools in Cambodia for all parents to push and encourage students to learn at home. Furthermore, parents should also pay much attention and support to their children's learning at home (MoYES, 2021).

3.   The Strategies to Deal with Quality

The ministry of education created the paper-based worksheet to help teacher and students who live in rural area to teach and learn. Moreover, the ministry of education also provided new method to gather students to study as a small group (MoYES, 2021).

Conclusion

To sum up, based on the findings of the literature mentioned above, the researchers have found both different and similar challenges of distance education depending on their research subject and places. In other words, most of the problems in literature seem to be the parts of the challenges in lack of internet access, devices, classroom management. Therefore, this study intended to investigate some of the challenges of distance education both online-learning and paper-based worksheets. More interestingly, this study also would like to compare between the challenges raised on the literature and the challenges that the participants have encountered in teaching and learning during COVID-19 pandemic at Komru Srok Sotnikum Primary school whether

they are similar or different. Moreover, the study would like to explore some of the strategies mostly reveled by many researchers in literature such as government and education institution providing new method for teacher, support, encourage, and announce the information to the stakeholder to help at Komru Srok Sotnikum Primary school and to find out whether these strategies are different or similar to the finding of this study. In the next chapter, there is a presentation about research methodology mainly about how the data was collected.

CHAPTER 3: RESEARCH METHODOLOGY

This chapter describes the procedures and practices in conducting the research. It also presents the methods for the study which includes the research design, sample and sampling techniques, instruments, data collection procedure, data analysis, ethical consideration, work plan, and scope and limitation.

3.1 Research Design

This study is a qualitative research study that used narrative research design as a strategy of inquiry. Qualitative research enables the researcher to reach detailed data in its natural setting and since it is interpretative it gives an opportunity to the researcher to interpret the data. It also focuses on participant's experiences and ideas (Elçi & Devran, 2014). Furthermore, the narrative research approach focuses on studying an individual person, gathering data through the collection of tales, recounting personal experiences, and debating the meaning of those events for the individual (Creswell & Inquiry, 2007). In this study, the distance education applied due to the global epidemic has also been considered as a situation and the experiences of the participants regarding this situation have been tried to be revealed.

3.2 Sample Size and Sampling Technique

To explore the various reasons for the challenges of distance education during COVID-19 pandemic, Komru Srok Sotnikum Primary School was chosen because it used a variety of strategies and platforms for distance learning. The working group of the research consists of 4 teachers (4 females), and 181 students (86 girls and 95 boys). Eight participants participated in this study,4 teachers in Grade 3 and 4 students who were in grade 3 during the pandemic. To reach and get the information, the researcher employed purposive sampling. Moreover, this sampling is where the researcher includes cases or

participants in the sample Furthermore, purposive sampling can help identify cases from a standardized questionnaire that are worth following up on.

3.3 Research Instrument

The researcher employed an interview protocol that reflected the purpose of the study questions to guide the semi-structured interview. In addition, the interview protocol was written in Khmer. The questions for the students' interview were written in simple language that they could understand. The interview protocol for teachers' interviews was still simple. The interview questions were open-ended, allowing for follow-up questions.

3.4 Data Collection Procedure

To collect the data for this study, the researcher began by contacting the director of Komru Srok Sotnikum Primary School to receive permission to conduct the study. Because the teachers have experience with both online and paper-based education, and the kids come from a variety of socioeconomic situations, Komru Srok Sotnikum Primary School is a suitable school for this study. Because this place had implemented both online and paper-based methods, the researcher targeted this site. The researcher gave the director a thorough overview of the work and asked for formal approval. The researcher also requested information on teachers' and students' attendance data from the director. The researcher then contacted teachers in grade 3 and explained the study to them. The researcher also requested their agreement for the study, as well as permission teachers to participate in interviews and to record them. Then, the researcher encouraged teachers to contact students' families by Facebook, Telegram, phone, or home visits for any families who did not have access to Facebook. Next, the teacher inquired about their willingness to allow their children to take part in the research. If students' families allow their children to take part, the researcher also requested written permission to interview and record them. Using a semi-structured interview, the researcher interviewed 4 students

who were in grade 3 during the pandemic. The interviews took place entirely in Khmer. The interviews were taped and transcribed thereafter. The interviews were classified using keywords, and then the themes from the interviews were discussed. After the data was analyzed, the transcriptions were translated into English. The researcher then conducted interviews with the four Grade 3 teachers. These semi-structured interviews followed an interview protocol. These conversations were taped and then transcribed. Keywords and then themes were used to code these interviews. The study concluded with a comprehensive assessment of what was learned from the case after reviewing all of the material. The researcher reported the case's lessons learnt in this last interpretative phase.

3.5 Data Analysis

After completing the data collection with teachers and students, the process of data analysis started. To analyze data, six steps were used to provide concrete illustrations of potential codes and themes that might emerge in the study. Firstly, the researcher organized and prepared the data for analysis. Because the researcher collected data from many sources, the data organization was the first step to sort and arrange the data into different types depending on the sources of information. This involves transcribing interviews. Secondly, the researcher read, listened, and looked at all the data. This required the researcher to read the data several times, to get a sense of what it contains. Thirdly, the researcher started coding all the data. Coding is the process of segmenting and labeling text to form description and broad themes in the data. Fourth, the researcher used the coding process to generate a small number of themes or categories. Fifth, the thematic and content analysis were used to analyze data. Content analysis is a technique that enables researchers to study human behavior in an indirect way, through an analysis of them. Thematic analysis is a method of analyzing qualitative data. It is usually applied to a set of texts such as interview transcripts. The researcher closely examines the data to

identify common themes, topics, ideas, patterns of meaning that come up repeatedly. Last, the researcher made an interpretation of the research data. This interpretation consisted of advancing personal views, making comparisons between the finding and the literature, and suggesting limitations and future research.

3.6 Ethical Considerations

All participants had the freedom to choose whether or not to engage in the study without being pressured, and they were under no obligation if they chose not to. The study was explained to all participants, and they were asked to consent to participate. Participants' names were not recorded or used during the study process, and they were not revealed in the final report. Instead of their own names, they were given aliases. Those that took part in the study will be given access to the methodology and the results.

Conclusion

All in all, this study was a case study which aimed to describe the implementation, identify the challenges and explore the strategies to deal with the challenges of implementation the distance education during COVID-19 pandemic Komru Srok Sotnikum primary school. In addition, to gather the data, the interviews were employed with the recordings. Then the data was analyzed, coded and categorized into some main themes considered as the finding of the study. Moreover, to be an ethical study, all the information of the participants was kept confidential. Furthermore, the finding of this study could not be generalized to whole school at Komru Srok Sotnikum primary school as well as other schools in Cambodia because the study focuses on only the primary level at Komru Srok Sotnikum school. For the following chapter, there was a presentation about what the study has found as the result of the study from the research participants.

CHAPTER 4: RESULTS

This chapter covers the research finding, which consisted of three questions: (1) What was the implementation of online learning and paper-based or worksheet learning during the COVID-19 pandemic? (2) What were the challenges of distance education for teachers and students during the COVID-19 pandemic? (3) How did teachers and students deal with distance education challenges during the COVID-19 pandemic?

4.1 Demographic Information of the Participants

In this study, eight participants, four teachers of grade 3 and four students of grade 4, were interviewed for around 30 to 40 minutes individually on their experience during the COVID-19 pandemic at Komru Srok Sotnikum primary school, as can be seen in table 1 below and table 2.

Table1
Teacher's Code, Age, Sex, Academic Qualification, Teaching Experience.

Code	Age	Sex	Academic Qualification	Teaching Experience
T1	36	F	BA	13
T2	36	F	BA	18
TB1	35	F	BA	10
TB2	33	F	BA	8

Note: Code T1 and T2 are teachers who taught by using Online-learning, and TB1 and TB2 are teachers who taught by using Paper-based. Academic Qualification BA stands for Bachelor's Degree.

Table2
Student's Code, Age, Sex, Grade

Code	Age	Sex	Grade
S1	10	F	4
S2	9	M	4
SB1	9	F	4
SB2	10	M	4

Note: Code S1 and S2 are students who studied by using Online-learning and SB1 and SB2 are students who learned by using Paper-based.

4.2 The implementation of Distance Education

During the data analysis process, various themes and common threads gradually emerged. The data were carefully verified using an iterative approach before being categorized into different pieces. For instance, the interview voice records were helpful

and used to transcribe the data. The themes that appeared are mainly related to the three research questions. One of the main interests of the study was to investigate what teacher and students implemented their teaching and learning during the COVID-19 pandemic.

A. Online-learning

Four participants, two teachers and two students taught and studied online. Moreover, T1 and S1 mentioned that they used synchronization, and T2 and S2 said they used asynchronized for their teaching and learning. So, the researcher has divided in two parts as well.

Synchronized

T1 stated, "I created the Zoom meeting, and I dropped the Zoom link into Telegram, then I admitted them to join the Zoom. Moreover, I used my phone and computer to support my online teaching. And most of the time, I used Zoom and Telegram". S1 also stated, "My teacher asked me to download Zoom and Telegram from the app store. Then, she created a Telegram group. After that, she dropped the link on Telegram and admitted me to join as well". T1 and S1 added that they taught and studied 6 days per week about 2 to 2 and a half per day on two subjects such as Khmer and mathematic.

Asynchronized

Two participants used asynchronized learning by using devices and social media such as: teacher created videos of the lesson and exercise, and students watched the videos then do exercises on two subjects Khmer and mathematic and submitted them back. The two participants explained that:

I taught asynchronized by creating videos of me teaching the lesson, then I developed exercises, dropped them on Telegram, and asked my students to do them. More than this,

I used the phone, computer, and social media like Telegram and Facebook messenger to support my online teaching. (T2)

I learned through the teacher's video of the lesson and lesson exercises using Telegram and Facebook massager. Furthermore, I used the phone and social media like Telegram and Facebook messenger. (S2)

Interestingly, T1 mentioned that she taught five days per week from 7 until 11a.mAnd she divided students into groups of about ten students each. Moreover, S2 added that he studies 4 to 5 days per week but only 2 to 3 hours per day because he needed to do exercises that teacher gave us. Moreover, the zoom was ended because my teachers used it for free.

B. Paper-based distance learning

During the COVID-19 pandemic, four participants implemented paper-based learning. And they gave, got and submitted the papers only one day a week is on Wednesday at school from 7 to 11 o'clock on two subjects such as Khmer and Mathematics. Moreover, two teacher participants added that:

I divided students into ten groups because I did not want my students to gather together, which may cause problems with the COVID-19 spread out. Sometimes I opened the classroom and explained the lesson before giving the exercise paper". (TB2)

When students did not come to get the paper, I sometimes went to their homes and sometimes asked my students to share it with their friends. If they came to get the documents, they might do it twice. However, when they came to get the worksheets, I always did an explanation of the lesson or exercise. (TB1)

By the way, "When some of my students who did not understand the lesson, I sometimes gave them a chance to ask questions by giving more explanation directly in school and by telephone as well.", says TB2. For SB1 and SB2, they also stated that "When I did not understand, I asked my mother or my teacher.".

For giving feedback, TB1 and TB2 said that they gave feedback on papers and directly to students because when students submitted the documents back, teachers corrected and noted on the paper what they were doing wrong and explained them in the classroom. Similarly, SB1 and SB2 said that their teachers gave them feedback by giving them scores and correcting the paper's mistakes, and sometimes their teachers explained directly.

4.3 The Challenges of Distance education

    A. Online-learning

        1. Lack of Internet access

Most of the participants who used online learning mentioned that one of the challenges during distance education is the lack of internet access. According to T1 and T2, online classes were more complicated than studying in the actual classroom. Specifically, not all the students could attend the course, and about 5 to 6 students stayed in an isolated place with no internet connection. Moreover, T1 and T2 added that:

> It was challenging to communicate when I tried to explain to them because the internet was unstable, making my students lost attention and missed some lesson or explanation. More than this, it was also difficult for my students because their parents needed to spend a lot of money and time on the internet service and needed to help their children; they sometimes complained about that. (T1).

> Some students could not open the videos and exercises I dropped on Telegram. They tried several times and took a long time to watch my videos. Precisely, it was why my students could not do the exercise I provided them to do. (T2)

Moreover, S1 and S2 stated that they wanted to learn in the classroom more than online because they could not meet and played with their friends when they did not

understand, could not ask their teacher easily, and found it challenging to find the place to set and learn. S1 also mentioned that:

My internet was sometimes unstable, so that it was complex for me to learn to play the videos or open the exercises that the teacher sent to Telegram; I also needed to wait for the internet to be accessible. Furthermore, I needed to spend money on internet services, and my mother needed to take care of me because I could not use or played the videos alone.

2. Lack of Devices

The lack of devices was the biggest challenge for teachers and students in interacting with online education. This is because some of the students came from low-income families and did not have abilities to support their children to learn by using phones, Ipad, computers and so on. T1 and T2 raised an issue about the lack of devices for students from low-income families. More interestingly, T2 added that:

Even though students had devices, some were not used for learning but for playing games, watching videos' cartoons, and so on. Suppose their parents did not stay nearby and had a look at them. Some students used their parents' phones to learn. Some of my students were absent if their parents went to work and brought phones with them.

Similarly, S1 and S2 said that even though they had a phone for online learning, they could not join and studied regularly because their parents were busy with work and brought phones to work too.

3. Classroom Management

Another challenge for online learning was classroom management. Because the teachers and students were far from each other, teachers could not manage the classroom effectively. According to T1 and T2 said that it was so far different. T1 added that:

It was a lot complex when I tried controlling my students on Zoon. Especially when I wanted them to look and listen to my explanations or answer my questions; additionally, it was tough to handle them when they turned off the video camera. I did not know whether they stayed nearby or far away from phones. Moreover, I could not handle the students' attendance to join Zoom altogether because they did not have phone, unstable internet, and made an excuse because they wanted to play games instead etc.

4. Lack of Skill

Lacking the Skill to use technologies was also a challenge for teachers and students to support their teaching and learning because it was a new method for teachers and students that was further used in their classrooms. Moreover, it was too hasty to change to use the new approach, so they could not do it well and met some complexity. T1 and T2 stated:

Although I used the online method for my teaching, I still had some challenges when I used it, such as hosting Zoom. At first, I hosted Zoom, but I did not know how to turn it off and on, admit, record, and drop the link into Telegram. Besides using Zoom, I saw my friends used Google meet, but I could not, so I decided to use only Zoom. (T1)

It was the first time I used technology to support my teaching. I was challenged to host Zoom. That was why I used an asynchronous method to support my education. I also faced many problems, such as creating videos of my teaching. I was not good at creating videos or Photoshop, like cutting or editing them, so I needed to take many times to shoot one video; sometimes, I did it 5 to 7 times. It was a harrowing experience for me. I sometimes wanted to give up. (T2)

In addition, it was not only the first time for teachers but also for students to use technologies to support their learning. The difficulty was how to download the platform and how to use it. As S1 and S2 mentioned:

I did not know how to download Telegram and Zoom. With my parents' help, my father permitted me to download it. Next, my father created a Telegram account and email for me to study. Besides this, my mother helped me click on the Zoom link that the teacher dropped on Telegram. She helped me every time. However, she stayed at home and was also busy with housework. She could not help me every day and every time. I sometimes did not join the class because she was busy going outside. (S1)

When the teacher wanted me to download Telegram, I did not know how to do it. I asked my father and mother to help, but they did not know how to download it. Then, my father went to the phone shop, and they downloaded Telegram for him. Moreover, after downloading Telegram, we could not use it. Then we went to the phone shop again and asked them to teach us how to use it. Next, my father explained to me how to use it. (S2)

5. Lack of Support

Lack of support was the main challenge that made the new teaching and learning method ineffective. The support was from parents, school administrators, communities, education institutions, and other stakeholders. According to T1 and T2 said that:

Some students could not join online classes regularly because some parents did not push or encourage them to join. Furthermore, they tried to refuse what I told them about helping their children more in doing exercises, for instance. Besides parents, the communities should encourage parents to push their children to learn at home and think about the significance of their learning. Moreover, the ministry and administrator should take care of the new teaching method to help teachers use the technologies more effectively. (T1)

I wanted to know how to edit videos, but I was not trained. So, I felt that the MoEYS did not provide a short training course for teachers who taught by using online technologies. On the other hand, when the teacher provided the videos for students to watch and the tasks to do, the students needed some support from their parents or caregivers. Some of my students were not supported by their parents or caregivers, so they could not do their

activities or miss the video lesson. More interestingly, some of my students did not watch

the videos because they played games or watched cartoons. (T2)

B. Paper-based distance learning

1. Lack of Time

Lacking time was the biggest challenge for transferring knowledge to students.

Teachers had little time to explain and provide feedback. According to TB1and TB2

stated:

> Because of the prevention of Coronaviruses disease, I divided students into groups to get
>
> the paper. And I gave and collected back from students on the same day on Wednesday so
>
> that I could meet my students only one day per week. Sometimes, I met only one to two
>
> hours to explain and gave them feedback in each group. I thought it was not enough time
>
> for them to understand the exercise and got feedback. (TB1)
>
> One day a week was so little to teach and learn. I was difficult and worried about my
>
> students understanding the content and doing exercises. Mover, it was also hard for me
>
> because I needed to give them papers and provide feedback. I sometimes called their
>
> parents to check whether their children understood or not. (TB2)

Otherwise, SB1 also added that "It was a short time to meet my teacher.

Sometimes, my friends did not understand, and my teacher spent time explaining to them.

I wanted to ask my teacher; I needed to wait.".

2. Classroom Managements

Classroom Management was a more significant challenge for teachers and

students because some students were absent, and about 3 to 4 students did not submit the

paper back to the teachers. For example, TB1 and TB2 mentioned that all their students

could not come to get the papers. However, they came to school, they did not submit the

paperback with the excuse that it was torn or lost. They did not do it. Also, SB1 and SB2 stated, "when my parents were busy, I could not come to get the paper too because I was afraid of Coronavirus. More than this, my parents did not allow me to come alone.". SB2 added, "I sometimes could not come to get and submit the paper because my sister tore it and I was afraid that my teacher got angry.".

3. Supporting

Paper-based learning needed support from parents or caregivers, administrators, and MoEYS. In addition, students needed help, such as providing the new method, material, motivation, etc. For example, TB2 mentioned, "Although I brought the paper to their home, parents did not care about that. And they did not push or encourage their children to learn". SB2 added that:

> I needed my parents to help me when I could not do the exercises the teacher sent on Telegram. It was also difficult to ask them because they were busy with their work. Sometimes, I needed to leave my work until the day that I met the teacher because I did not know how to do it.

4.4 The Strategies to Deal with Distance education

A. Online-Learning

1. Found Good Internet Connection Area

In rural areas, the internet connection sometimes is good and sometimes bad. In response to the lack of internet access, all teachers and students must find a place with a good internet connection. As T1 and T2 stated, "For me, it was OK because my school had a good internet connection so that I could use it without conflict.". Moreover, T2 added, "Before starting the class, I regularly asked my students to find an area with a good internet connection that was easy for them to learn or pay attention to.". Similarly, S1 also mentioned, "Before starting class, my teacher asked me to find a place which had

a good internet connection." S2 added that his teacher asked him to find a good internet connection place to download easy videos for him to watch.

2.   a. Providing Electronic Devices for Students

According to all participants who use online for teaching and learning, it was essential to have Electronic Devices such as Phones, computers, Ipad, and others. All the students must have the devices. And some of the students did not have phones, so that teacher need to ask their parents to buy or give their phone to their children to learn by themselves. More than this, T1 added that "I asked their parents to buy it for them or let them use their phone for learning.". Furthermore, S1 and S2 said, "My teachers told my parents to buy and give their phones to me to learn.".

2.   b. Teachers Provided Paper-based Worksheet for Students

Parents who could not buy or give their children the phone could bring their children to get the worksheets at school every Wednesday. T1 and T2 stated that if their students did not have devices supporting their learning, they could get the paper-based worksheets on Wednesday, and they would be waiting for their students to come to obtain and submit the paper. In addition, T2 added, "Some of my students come to get and submit the papers every Wednesday when they wonder. They come to ask every week because I stay at school from Monday to Saturday.".

3.   a. Set the Classroom Rules

To make teaching more effective, teachers need to set classroom rules. T1 mentioned, "At first, I did not specify the classroom rules, so students made noises. Then, I set the classroom rules, and it became better." Moreover, S1 mentioned that" My teacher set the rules with all the students.". T2 also added that:

I also set the rules because they can help my students learn during the pandemic. If students do not come to get the paper once a week, they must do it twice. And if they did not come to get the documents, they would lose their score, or they could not pass to the next grade. Moreover, it was still not effective because some of my students still did not come to get the papers.

3. b. Inform to Parents and Home Visit

It was an effective way for teachers to inform the parent or home visit because when teachers visit the students at home, they could know and see the actual situation of their students. Moreover, it is easy for students that did not have their parents to ride them to get the paper to school. T1 and T2 mentioned, "My students were happy when I visited them because they could ask and got the paper easily.". S1 and S2 added:

I was delighted when my teacher came to visit my house because I could ask her about what I did not understand. In addition, it was easy for me because I did not need to go to school or call her to ask when I wondered.

4. a. Asking Workmates

Using technical devices and new platforms was a challenge for teachers and students. And Two teacher participants raised that when they did not know how to use it, they asked their friends or workmates. Because the MoEYS did not provide the training course, they needed to learn by themselves and ask their workmate to help, as T1 and T2 mentioned:

I could know how to download Zoom, Telegram, and other apps, but I did not know how to use them. For example, when I could not host the Zoom or drop the link into Telegram, I asked my workmates to help, and they helped me a lot. (T1)

As I mentioned earlier, I was challenged with editing the videos. I asked my workmates who used to edit the videos, but there were still some problems. However, it could help me greatly because I could edit and spend less time than before. (T2)

4. b. Research on Social Media

Another way to help teachers use devices or platforms is through social media like Youtube, Facebook, Telegram group, and others. T1 mentioned that besides asking her friends or workmates, she also watched Youtube about how to create a Telegram, Zoom account, produce Zoom links, and host Zoom meetings. Sometimes, she scrolled on Facebook and Telegram to learn about the method or how to teach her students in Zoom. On Facebook, she could also find online teaching videos from other teachers. T2 added that she also watched videos on how to edit the videos, and the grade 3 teaching videos, that were created by the ministry to drop into Telegram instead of her own teaching videos.

5. a. Encourage

According to all teachers using online participants, the support from parents is essential to strategies to help teachers and students learn faster. So, to make the parents participate in helping their children learn is to encourage or give them motivation. T1 added that she always called students' parents to ask about their children. Moreover, she encouraged them by taking about the significance of helping students at home, opened my mind to them when they had questions about how to help their children at home, and admired them.

B. Paper-based distance learning

1. a. Provide the Contact to Students and Parents

Providing contact to students and parents is the best way to help students come to meet directly, especially during the COVID-19 pandemic, as TB1 and TB2 mentioned that instead of meeting for short times with students, they needed to find a way to help

their students by providing contact to students or parents to call when their children could not do the exercise or did not understand the task. Similarly, SB1 added that her teacher gave the phone number to her mother to call when she did not understand the lessons. And her teacher also said that she welcomed her every time her mother and her asked questions.

1. b. Come to School as Normal Classes

All teacher participants raised that although the school was closed, teachers needed to come every day so that students or parents could come to school to ask questions when they did not understand the lesson or could not do the tasks. For instance, some students did not have a phone, and when they did not understand the class lesson or could not do the job, they could come to ask for or get help from the teacher, said TB1. Similarly, SB1 and SB2 also mentioned: "My teacher came to school every day so that sometimes, I came to ask her at school as well.".

2. a. Set the Rules

To make students come to get the papers, they need to set the rules. It was practical too, and the rules that they set had such as come to obtain and submit the worksheets every Wednesday morning and following the group which they divided. If the students followed the rules, they got punished. For instance, they had to do it twice, failed the test, or could not go to the next grade, according to TB1 and TB2. TB2 added, "When the students submit the papers, I asked them to read the rules that we set. After they read the rules, I saw that they summit and get the worksheets regularly and on time. It was better than before creating the rules.". For SB1 added that when he could not go to get the worksheets, he always informed the teacher because he was afraid that his teacher would not give him a score and wouldn't let him go to the next grade.

2. b. Attendant Checking

Another way to make good classroom management was attendant checking. When students came to get and submit the worksheets, they called the students' names into the class as a group and checked with the attendant. If students did not come 3 to 4 times, they called their parents and informed them about their absence, said TB1 and TB2. Likewise, SB1 and SB2 mentioned that:

My teacher told me I needed to come to school on time and regularly because I would miss the lessons and do the tasks twice when I was absent. Furthermore, she always checked my name as well. Some of my friends were absent, and they needed to do it twice, and they did not get a score from my teacher too. More than this, my teacher counted the number of absences every month.

3. a. Contact to Parents Directly

It is difficult to ask all the parents to participate or support their children to learn because they are busy with their work, said TB2. However, TB1 also mentioned that some parents were willing to join or help in our new method and help their children learn at home more or bring or push their students to come to get the worksheets. Further, TB1 and TB2 raised that to ask parents to support their teaching was to contact them directly by phone and visit them at home. In addition, TB2 said that although she got them on the phone, it was not effective either.

3. b. Encouraging

Both TB1 and TB2 mentioned that they try their best to encourage parents to help their children at home by admiring them and telling them about the significance of their helping their children such as their children will feel warm when they had someone to discuss when they did not understand the lesson or tasks. Precisely, TB2 added that "Most

of the parents whom I discussed with, changed their action and habits to look back on their behavior and action to help their children.

Conclusion

Depending on the data presented above, there were some challenges, and strategies to deal with distance education challenges during the COVID-19 pandemic. The implementation of distance education was online learning and paper-based learning method. Moreover, there were some challenges with using two methods. The difficulties of online learning were lack of internet access, lack of devices, classroom management, lack of skill, and lack of support. And the challenges of paper-based education were lack of time, classroom management, and support. Furthermore, to deal with the challenges, teachers had some strategies such as finding excellent internet connection areas, providing electronic devices for students, teachers provided the paper-based worksheet for students who did not have abilities to buy the phone, setting the class rules, informing parents and a home visit, asking workmate, research on social media, encourage, provide the contact to students and parents, come to school as a typical day, and attend checking.

CHAPTER 5: DISCUSSION

This chapter presents the analysis and interpretation of research findings in chapter 4. The implementation, challenges, and strategies in distance education during the COVID-19 pandemic found in this study are analyzed to compare with the literature review gathered in chapter 2. The challenges teachers and student participants have encountered, and their strategies in teaching and studying during the COVID-19 break-out are discussed. Finally, there is a conclusion drawn from the interpretation made.

Exactly, there were the implementation, challenges, and strategies of distance education in the Komru Srok Sotnikum Primary school, which matches the distance education during the COVID-19 pandemic the performance, challenges, and some method in this study. As described below, the data was gathered through interviews with four teacher-participants and four student-participants.

4.1. The Implementation of Distance Education

A. Online-learning

1. Synchronized

Teacher and student participants used synchronized because they thought that it was easy for them during COVID-19 pandemic. Moreover, they used devices to support their teaching and learning, so they download the app from the play store and create the account to use such as Telegram, Facebook messenger, and Zoom. Furthermore, they could also see and talk to each other. More than this, teacher could also explain the lessons and tasks directly to students, and the students can also reply and ask questions when they did not understand the lessons or tasks on two subjects such as Khmer and mathematic, normally in classroom they learned 4 mains subjects which distance learning forced the schools to sacrifice some learning activities.   More than this, they taught and studied 6 days per week and about 2 to 2 and a half per day, so it was very little times for

them to learn and teach if comparing to the normal week, taught and studied 4 to 5 hours per day and 6 days per week.

Similarly, Skylar (2009) found in the interactions are not as easy and as natural as in a real classroom.

Moreover, MoYES (2020) also found that the implementation of distance learning by using synchronized had used some platform including Telegram, Zoom and Messenger to support their distance teaching and learning.

2. **Asynchronous**

Another style in using online to support their teaching and learning is Asynchronous. It is also an effective way to help students to learn anywhere and at any times by creating the lesson teaching videos, tasks and sent through the platform like Telegram and Facebook's messenger. Then, they ask students to watch video lessons which they sent in to the Telegram let them to do the tasks and send them back to teachers. Moreover, normally, they taught and learned 6 days per week and 7 until 11. Because of the COVID-19 spread out, they taught and learned five days per week from 7 until 11. And they divided students into groups of about ten students each and for each group studied about 2 to 3 hours per day.

Moreover, Skylar (2009) found that provides flexible environment that is self-paced with learners accessing course content using a variety of tools such as CD-ROMs, streamed prerecorded recordings of audio or video web, and audio podcasts.

On the other hand, this idea of self-paced learning looks good, but in the practice the researcher has found that without adult supervision, students do nothing.

The same as MoEYS (2020) found that ministry prepared the inclusion of videos with education contents on Official Facebook Pages of MoEYS, on Yutube.com/moeys. Furthermore, MoEYS also updated subdomains of elearning.moeys.gov.kh and

https://beep.moeys.gov.kh/. Moreover, MoEYS made Lesson Videos on elearning.moeys.gov.kh for 6 courses, from Grade 1 to 6 including using sign Language.

However, more surprisingly, some of the participants who use online learning explain that very smell numbers of students that could learn from the Facebook pages or YouTube, especially, students in primary level.

B. B. Paper-based Distance Learning

When teachers and students gave, got, and summited the papers only once a week is on Wednesday at school from 7 to 11 o'clock on two subjects, Khmer and Mathematics, it was a very short times and not enough for students to learn and students will feel not want to learn anymore because they needed to wait until Wednesday next week. More than this Teachers divided students into groups to prevent the COVID-19 from spreading out and it also made it easy for students to come to get and summit the papers. While teachers gave the papers, teachers also taught and explained some lessons and tasks before letting students go back home. Moreover, teachers also went to students' home to give the papers worksheets or asked their friends to share or give the papers to them, if they did not come to get the papers at school. Furthermore, when students still did not understand the tasks or lessons, teachers and students could talk to each other directly when they met at school or my phone call. In addition, Teachers usually gave feedback to their students by note on the papers, give them score or by talk to students directly, sometimes.

Similarly, MoEYS (2020) also found that some teachers provide worksheets and review them and then provide feedback on the worksheets, to facilitate small groups learning among their students. The worksheets at the primary level are made up of two subjects, Khmer and mathematics.

Additionally, Jaime (2021) found similar processing of papers-based distance learning which teachers gave papers and provided feedback on tasks or talked to students directly when they came to get and summited the papers.

However, more surprisingly, teachers -participants who used paper worksheets explain more about the home visits and students who did not come to get the papers. If they did come to get the papers, teachers went to their home and gave the papers to their parents. Some students who did not come to get and do the task once, next times, they needed to do

twice.

4.2. The Challenges of Distance Education

A. Online-learning

1. Lack of Internet access

Internet access is very important for online-learning because they need to connect it to the devices which can use some platform like Telegram, Zoom, Facebook and etc. It is very challenging for teachers and students to learn by using online both synchronous and asynchronous when the internet access did not work very well, was unstable or when they did not have internet at all, especially in rural area. It caused problems such as could not join the class, misscommunication, and miss lessons. Moreover, the lack of internet access made teachers and students difficult or could not send, watch or play the videos of the lesson and tasks through the platform.

Additionally, Aliyyah et al. (2020); Hermanto & Srimulyani (2021); Sari & Nayır (2020) found similar problem with internet access which related to student's house location. Especially when students join the class by using some platform.

Moreover, Flynn & Himel (2020) found that teacher and students in rural areas did not have reliable internet access and they are not capable of using emerging technology that if frustrating experience for many making online learning more difficult.

By the way, Daniel (2020) found another problem in online-learning has made students stress, frustration and isolation that have lost the chance for peer and teacher interaction.

2. **Lack of Devices**

Devices are very important for online learning; however it was a huge problem when the teachers and students did not have them. Only a few students had their own devices which sometimes join, they used devices to another way like played games, watched cartoon or used other social entertainment media such as Tik Tok, Facebook, or others and some students used their parents' devices which sometimes could not learn or join class because of their parents brought the devices to their work places. Moreover, some students were come from low income families, they could not support their children to buy devices, so they need to come to get the paper worksheets at schools.

Similarly, according to MoYES (2021) teachers' capability is limited due to a lack of experience in lesson planning, preparing digital teaching clips, videos and photos, and they cannot join their classes. Moreover, the mechanism for student data management, attendance monitoring, and score management is still unclear.

3. **Classroom Management**

Because of the online learning made teacher and students stay away from each other, there were many problems for classroom management. The problems had such as students did not listen to teacher's explanation, students did not answer teachers'

questions, or teacher did not know whether students look or listen to their explanations or not because during class students turn off the video cameras. Moreover, there also other problem like students cannot join class because of their internet connection or unstable, so they could not listen to the teacher well. Surprisingly, it compromises seriously the effectiveness of distance learning when some of the students made excuse to ask permission.

Similarly, according to Arslan & Sumuer, (2020) the classroom management problems were mostly associated with hardware, software and evaluation problems in the virtual classrooms. Some of the classroom management problems were related to background noise, internet connection, access to the course, lack of digital content, lack of interaction, short class time, voice transmission, privacy and security, and inappropriate use of software.

4. **Lack of Skill**

The online learning is a very new method for Cambodian teachers. They need to be trained by the MoYES and they need more support from the stakeholders such as school principals, district educational office, provincial department of education, and ministry of education. Some of the teachers cannot use the technologies to support their teaching such as how to use some platform, apps, creating videos, or tasks for students, especially the effective teaching method that can help teachers and students learn easily. Although they have devices, they did not know how use it effectively, so they need to find a good method to support their students learn more effectively. They sometimes have difficulties to download and use the platform or apps. Moreover, some students also find it difficult to use devices or some platform such as download or join the Zoom because they have never used it before. They also went to the phone shop to get help from the staff which they need to pay money for that.

5. **Lack of Supporting**

During the pandemic, both teachers and students needed support from the stakeholder such as support from student's parents, school principals, communities and other educational officers. Some students will not want to learn, so parent's students should also encourage or push them to study, for instance join class on zoom, watch the teaching lesson videos, do the tasks, or learn more at home, but some parents try to refuse what teachers told them by some reasons or excuses. For communities also have a duty to push students' parents to encourage students to learn on distance learning or self-study. Moreover, the ministry of education provides some platform and other material for teachers help teachers, but there was not effective yet because some teachers who use online learning was not trained to use it. Some teachers complained that they could not edit the videos and needed to spend a lot of time before posting them for students.

B. Paper-based Distance Learning

1. Lack of Time

Teachers needed to divide students into groups when teachers using paper-based distance learning, so teachers and students can meet, explain, and give feedback only one to two hours each group. The members of students in each group were also large so that teachers found it difficult to help them. Moreover, one day a week is also a little time to teach and learn, it was very difficult to make an effective teaching and learning. Furthermore, the big problem was with students who did not understand the exercises or tasks on paper.

Similarly, according to MoYES (2021) lack of time for teacher and students to teach and learn also caused many challenges for students to understand the lesson.

Moreover, Fraser (2017) found that the lack of time for inquiry-based teaching and learning also affected education and understanding during the COVID-19 breakout.

2. Classroom Managements

There are many challenges of classroom management for teacher and students during providing paper worksheets. The problems had such as not submit the papers back by many excuses that it was torn or lost. Moreover, some students were absent because some parents did not take care of their children, so that they did not come to get the paper worksheets on times or regularly. Furthermore, some students missed some lessons and did not catch up the lessons because once a week is a very little time to meet students. Teachers had difficulties to control and help students.

3. Supporting

It was not only the online learning but also the paper-based distance learning that needed supporting from the stakeholders such as parents' students, communities, school administrators, and all educational departments. Teachers faced many problems because of a lack of support from those of stakeholders to help and encourage. Normally parents were working to support their family financially, so they did not have time to help their children learn at home. Some students needed help from their parents because some tasks were difficult. More than this, some students could not come to school to get the paper worksheets because they were afraid of COVID-19. Moreover, some students lived far away from school, they could not come to get the paper at school, needed their parents bring them to get the paper worksheets. Furthermore, the communities did not encourage and push parents to take care of their children's learning.

4.5 The Strategies to Deal with Distance education

A. Online-learning

1. Found Good Internet Connection Area

The internet connection is very important for online learning, so during the processing the online learning, teachers always found and told students to find a place

that has stable or good internet connection. Moreover, both teacher and students need to be well prepared by testing the internet before starting class on zoom or watching the teaching lesson videos.

By the way, Heng & Sol (2021), For students, teachers, and staff to have the chance to advance their knowledge and understanding of the various aspects and nuances of online and blended learning, training, and orientation programs about online learning, including lessons on online teaching and learning tools and strategies, must be regularly offered.

Unlikely to this finding, Vlachopoulos (2011) and Aliyyah et al (2020) stated that the government also needed to develop or provide the online educational material or resources that align with national curriculum and help both teacher and student in their processing by using online teaching and learning.

2. The Strategies to Deal with Devices

2.a. Provided Electronic Devices for Students

However, the school and students' parents should provide some electronic devices for them to use to support their teaching and learning. Unfortunately, it was not an effective way to do this because many students who did not have devices, school or parents might not have abilities.

2.b. Teachers Provided Paper-based Worksheet for Students

It may need students to learn by using worksheets. Teachers may need to explain more or meet students directly at school to give, get, and submit the paper worksheets. It will be more difficult for more teachers because teachers need to do twice works, both online and paper worksheets.

Similarly, according to the MoYES (2021) the ministry of education created the papered-based worksheet for helping students who did not have devices to learn by themselves and to get from their school.

By the way, MoYES (2021) and Aliyyah et. Al (2020) said that the government created an education television program to help students who did not have devise learn at home from the primary level to the higher level.

3. **Classroom Management**

   3.a. Set the Classroom Rules

Some students will make noise or not join the Zoom, not watch the video or do the task if the teacher does not stop or help them. The best way to manage the class or solve all the problems is to set the class rules. For instance, please mute your microphone and turn your camera on so that the teacher can see the students' face. Moreover, students can get noisy really quickly. They need to mute microphone to keep the audio channel free of clutter and available to the teacher or students who answer or ask questions. Furthermore, keep the student's camera turned on so their classmates and the teacher can read their visual cues. If needed, students can encourage each other with appropriate response emoji. Further, please join Zoom on time so that students will not miss the lessons or explanation. Moreover, setting the class rules can help teacher a lot because when all the students participate, teacher easy to explain and give students instruction effectively. Added, teachers also can mark their names to punish if they do not listen to the teacher or break rules. In addition, it is also great for teachers to help students with the misbehavior during class become better, then they will become good students and learn more effectively.

Similarly, according to Lathifah et. al (2020) online learning, the teacher needs to create rules and routines for students to follow to make effective classroom management.

Moreover, teacher and students can make the interaction with each other to promote the class activities, provide instruction by motivation and engagement and create discipline to control the disruption that probably occurs when the learning and teaching processing.

3.b. Inform to Parents and Home Visit

Another effective way was a home visit. It could help teachers to ask parents to know and help their children to learn. When teachers go to their home teachers can see a real situation and know about the students' problems that have faced during their online learning and the reasons why they are absent or do not join online class. Moreover, it was easy for teachers and parents to discuss about problems and find the solution for their parents. Further, teachers could encourage parents to push their children to learn or join all the activities during online class and watching videos. In addition, students can also ask the teacher if they have some questions about the lessons or tasks.

However, it takes an awful amount of time to visit all the students, very expensive for the teacher to travel to every house, probably unfair, since it will not be possible to go everywhere. On the other hand, teachers should respect the families' privacy. It is also why education is collective normally that would destroy the purpose of the school closure, which was to introduce social distancing.

4. Lack of Skill

4.a. Asking Workmates

Skill for teaching by using online method is a new method which teachers have not used before. It is very important for teachers to know about how to do it because if they have skill of teaching online teachers can help their students learn effectively. The lack of skill for using online has some solutions as asking workmate. This solution is better than the others because all the teachers need to learn from each other by sharing some techniques and some process of using some devices and new platforms such as

Telegram, Zoom, Google form, Quizzes, and so on. Moreover, they learned from their workmate sharing about what they search on social media like YouTube channel, Facebook, and others, creating teaching lessons videos, video editor, and create some tasks for students, for instant. They help each other a lot when they have free time or on the Professional Learning Communities (PLC). So, it is a great sharing culture which all the teachers in this world need to do.

4.b. Research on Social Media

Another solution to the lack of skill is research on social media. Some of the teachers who have practiced on the Continuous Professional Development, try to do more search on a new thing, especially online learning techniques and methods like on YouTube, Google, Telegram channels and groups, MoYES and others Facebook pages, and others. Moreover, teachers also can share what they have found with other teachers who do not know how to search and find the solutions to know about how to teach students by using online. Moreover, all teachers should be ready for another similar crisis happen again. For instance, know how to create lesson teaching video, learn about new platform to support their teaching and student's learning and others.

5. Lack of Support

5.a. Encourage

All the people need to have some support from the stakeholders also teachers need some support from the stakeholders such as ministry of education, communities, administrator, parents, and friends. Teachers who did not used know how to teach by using online should receive the training courses from the ministry of eductation. Moreover, communities need to push parents to help teach their children at home and provide some feedback to the teacher about their children's learning. Further, administrators should give chance for teacher to learn by themselves and support them

during professional learning community or technical meeting. In addition, some of the workmates should also help and sharing what they have learned and searched to each other. All of these people are very important and are great encouragers that can encourage teachers to implement their working.

B. Paper-based Distance Learning

1. Lack of Time

1.a. Provide the Contact to Students and Parents

During providing the paper-based distance learning, the best way to make students learn more effective is providing the phone number to students and parents to create more connection between teacher and students because teacher and student can meet each other only one to two hours per day and once a week, so it is very short time and hard to explain and make students to understand the lessons and tasks. When teachers give their contact to students, students can ask some questions they do not understand. More than this, when students have a problem, their parents can call to teacher, for instant getting or summiting the papers back to teacher late. Further, teachers can also ask their parents about their children learning.

1.b. Come to School as Normal Classes

Even though the teacher sets the time and times to meet, students can also come to school or class as normal in case they do not understand the tasks or lessons, but just meet a few of students a time. Teachers always come to school every day, so students can ask questions from Monday to Saturday and from 7 to 11 o'clock in the morning.

2. Classroom Managements

2.a. Set the Rules

It is not so different from the classroom managements of normal class and online learning. The classroom management of paper-based distance learning also needs to set

the class rules. Creating the class rules can make students have good habit during class, especially when students come to get and summit the papers. For example, when students did not summit the papers, they need to do it twice or have other punishments from teacher. When creating rules, some students always get and summit the papers worksheets regularly.

Similarly, MoYES (2021) advised to set rules to help students who cannot come to get the paper or worksheet by asking teachers to gather the students to meet and study in small groups. Moreover, education institutions create videos of teaching and live on National TV.

2.b. Attendant Checking

Checking attendance is also a good way to help teacher manage the class more effective. Precisely, most of the students will change their behavior and habit when the teacher calls and checks their names every time they come to get the papers. In addition, some of the students do not want to miss the class a lot so they will come to school and summit their paper worksheets.

3. Support
3.a. Contacting Parents Directly

When teachers need some support from student's parents, sometimes, some parents do not provide it. Teachers need to make them join or participate in school activities. Then, teachers can also give the contact or phone number to parents directly when teachers need to ask them to help their children or when they absent, for instance when students are absent, teachers can call or contact the parents to ask about the reasons. Moreover, teachers can call and inform about some information related to the school activities to parents, too. Furthermore, some parents will pay more attention to their children's learning.

Similarly, according to MoYES (2021) the government also announced on national TV, radio, social media, and to all the schools in Cambodia for all parents to push and encourage students to learn at home and parents should also pay much attention and support to their children's learning at home.

3.b. Encouraging

To help teachers and students to learn more effectively is needing some encouraging from the stakeholders such as communities, ministry of education and government. They should announce the information related to the advantage of learning during the breakout of COVID-19 pandemic. Especially, they should encourage parents to push students come to get and summit the paper worksheets, at least, they can learn at home by themselves and just do the tasks which teachers give to them.

4. The Strategies to Deal with Quality

More interestingly, MoYES (2021) mentions that the ministry of education creates the paper-based worksheet to help teacher and students who live in rural area to teach and learn. Moreover, ministry of education also provides new method to gather students to study as a small group. To make more quality teachers always try to do it regularly and implement the processing of give and summit the paper worksheets to students. In addition, when teachers collect the papers, teacher needs to provide some feedback directly or on the papers so that students will know their mistake or they do it right. That is easy for students to know what to do next and they also enjoy the learn and come to get and summit the paper regularly.

Conclusion

In conclusion, between the online learning and paper-based distance learning, there have some difficulty and make easier. The 2 method help students can learn and to

prevent from the spread out of the COVID-19 disease. However, they are still not really effective for students' learning yet.

CHAPTER 6: CONCLUSION, LIMITATIONS, AND RECOMMENDATIONS

6.1. Conclusion

According to the research result presented and discussed in chapter5, the implementation of distance education divided in two methods, online learning is synchronized and asynchronized and paper-based distance learning. Moreover, the teachers and students at Komru Srok Sotnikum primary school in academic year 2020 to 2021 have faced some challenges during implementation of distance education such as, for online learning, lack of internet access, lack of devices, classroom management, lack of skill, and lack of supporting. In addition, paper-based distance learning is lack of time, classroom management, and lack of support. More importantly, to deal with those problems the teachers have employed some strategies for online learning such as found good internet connection area, provided electronic devices for students, set the classroom rules, inform to parents and home visit, asking workmates, research on social media, and encourage. Furthermore, for paper-based distance learning is not so far different from online learning, teachers have employed some strategies such as provided the contact to students and parents, come to school as normal class, create the rules, attendant checking, contact to parents directly, encouraging, and others.

6.2. Limitations of the Study

There are some limitations in this case study. Firstly, in this research study there was a small sample size, because the researcher collected data from only one primary school and choose only 4 teachers and 4students in one grade. Secondly, therefore, the researcher could not explore more about the reality of challenges and solutions that teacher used during distance learning because it happened in the past times. Because of the limitations expressed above, the result of this research study could not be generalized

that all teachers at Komru Srok Sotnikum primary school or other schools across

Cambodia have faced the same challenges and used the similar strategies in implementing

the distance education, but it could be useful for some teachers and some classes at

Komru Srok Sotnikum primary school.

6.3. Recommendations

Based on the limitation illustrated earlier, there should be some considerations for

further study in the future. If the other researchers want to study a similar topic, the

sample size or school should be increased in order to gather more information in depth for

the study. Moreover, besides interviews should be conducted to collect triangulated data

the finding of the study can be more precise. Furthermore, there should be another study

about challenges on implementation the distance education and some strategies to solve

the problems so that the ministry of education and administrator can find way to help

teacher more to improve their distance teaching and learning process effectively.

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NEW GENERATION PEDAGOGICAL RESEARCH CENTER

Research Topic: Distance Education During Covid-19 Pandemic

at Komru Srok Sotnikum Primary School: Teacher's and Student's Voices on Challenges

Supervisor: Stanislas Kowalski

Author: Ean Ratha

Semi-structured Interview Questions

Opening

Good morning! How are you today? What did you have for breakfast? Thank you so much for agreeing to give an interview in this morning. Firstly, I would like to introduce myself. My name is Ean Ratha, and I am the M.Ed. student at New Generation Pedagogical Research Center of National Institute of Education, Cambodia. I am currently doing a thesis on the topic of "Distance Education During Covid-19 Pandemic at Komru Srok Sotnikum Primary School: Teacher's and Student's Voices on Challenges."

I am very grateful that you have given me a chance to interview. And I would like to ask a few questions if you don't mind. Please be assured that I will keep the data confidential, and you will be able to verify the transcription of the interview. I would like to inform you that you can skip some questions if you feel uncomfortable answering them, so please do not feel pressured. Just relax and enjoy the conversation. OK, have you got any questions? Great, shall we start now?

	I.	General Information Questions
Q1		Could you tell me about yourself and your work experience during the COVID-19 pandemic?
	II.	Key Questions

Research Question 1	What were the implementation of online-learning and paper-based or worksheet-learning during COVID-19 pandemic?
Q1	How did you teach your student during the school closure during the COVID-19 pandemic?
Q2	During the COVID-19 pandemic, did you teach by using synchronized learning (Zoom, Google Meet, Facebook's messenger) or asynchronized learning (Telegram, Facebook, Email, etc.)?
Q3	Did you use any platform to support your online teaching?
Q4	How does it compare with the normal teaching time? Why?
Q5	I know it has been a difficult time. How much have you been able to teach during school closure of COVID-19 pandemic?
Research Question 2	What were the challenges of distance education for teachers and students encounter during COVID-19 pandemic?
Q1	How does it compare with real face-to face teaching?
Q2	Did you face any difficulty during your online teaching?
Q3	What is the most challenging for you during online teaching?
Q4	How did your student behave during their online learning?
Q5	Why did you choose online teaching rather than worksheets?
Research Question 3	How did teachers and students deal with the challenges of distance education during COVID-19 pandemic?
Q1	How did you deal with those challenges? Can you list down some strategies?

Ending/closing

Is there any important information you want to add? Thanks for your valuable time and this conversation! I really appreciate your answers, and I would like to end this conversation now. I really look forward to meeting you again one day. Thank you so much once again!

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III.	General Information Questions
Q1	Could you tell me about yourself and work experience during COVID-19 pandemic?
IV.	Key Questions
Research Question 1	What were the implementation of online-learning and paper-based or worksheet-learning during COVID-19 pandemic?
Q1	During COVID-19 pandemic, what did you use for your teaching?

Q2	How often did you pass the worksheet to your students per week? What subjects did you provide to them?
Q3	How did you give and collect the worksheet from your students during school closure of COVID-19 pandemic?
Q4	How did your students get and submit the worksheet?
Q5	How did you explain to them when they did not understand the tasks?
Q6	How did you give them feedback?
	How does it compare with real face-to-face teaching?
Research Question 2	What were the challenges of distance education for teachers and students encounter during COVID-19 pandemic?
Q1	What is the most challenging for you with worksheet-teaching?
Q2	How did your students behave during their worksheet-learning?
Q3	Why did you choose worksheets rather than online teaching?
Research Question 3	How did teachers and students deal with the challenges of distance education during COVID-19 pandemic?
Q1	How did you deal with those challenges? Can you list down some strategies?

Ending/closing

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APPENDIX C: INTERVIEW QUESTIONS

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V.	General Information Questions
Q1	How old are you? What's your favorite subject?
VI.	**Key Questions**
Research Question 1	What were the implementation of online-learning and paper-based or worksheet-learning during the COVID-19 pandemic?
Q1	How did you learn during school closure of COVID-19 pandemic?
Q2	How did your teacher organize you for online-learning?

Q3	During COVID-19 pandemic, when you learned online, were you in a virtual room to listen to the teacher in real time? Or did the teacher send the messages or videos of teaching for you to read or listen to later?
Q4	I know it has been a difficult time. How much have you been able to study during school closure of COVID-19 pandemic?
Q5	Did you use any platform to support your online-learning?
Q6	How long did you study per day? What subjects did you study?
Research Question 2	What were the challenges of distance education for teachers and students encounter during COVID-19 pandemic?
Q1	Did you like online learning?
Q2	What is the most challenging for you during online-learning?
Q3	How does it compare with real face-to face leaching?
Research Question 3	How did teachers and students deal with the challenges of distance education during COVID-19 pandemic?
Q1	How did you deal with those challenges? Can you list down some strategies?

Ending/closing

Is there any important information you want to add? Thanks for your valuable time and this conversation! I really appreciate your answers, and I would like to end this conversation now. I really look forward to meeting you again one day. Thank you so much once again!

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VII.	General Information Questions
Q1	How old are you? What's your favorite subject?
VIII.	Key Questions
Research Question 1	What were the implementation of online-learning and paper-based or worksheet-learning during COVID-19 pandemic?
Q1	How did you study during school closure of COVID-19 pandemic?

Q2	I know it has been a difficult time. How much have you been able to study during school closure of COVID-19 pandemic? What subjects did you learn?
Q3	How did you get and submit the worksheet?
Q4	What did you do when you did not understand the task?
Q5	How did your teacher do to help and give you feedback?
Research Question 2	What were the challenges of distance education for teachers and students encounter during COVID-19 pandemic?
Q1	Did you like worksheet-learning?
Q2	What is the most challenging for you when using worksheet-learning?
Q3	How does it compare with real face-to-face learning?
Research Question 3	How did teachers and students deal with the challenges of distance education during COVID-19 pandemic?
Q1	How did you deal with those challenges? Can you list down some strategies?

Ending/closing

Is there any important information you want to add? Thanks for your valuable time and this conversation! I really appreciate your answers, and I would like to end this conversation now. I really look forward to meeting you again one day. Thank you so much once again!

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