

## Primary teachers and students' anxiety toward online instruction during COVID-19 pandemic

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### ABSTRACT

The study explored primary teachers and students' anxiety toward online instruction during COVID-19 pandemic, the factors affecting anxiety related to online instruction of students and teachers in primary school. This research study was designed to collect data from primary teachers and students on the factors that affect anxiety in online teaching. The informants were 127 students and 11 teachers based on the purpose of the research. Questionnaire concerning general student data, such as gender, grade level, online study equipment, and online learning channels. Factors influencing anxiety in online education in the context of the COVID-19 pandemic, with 23 items for students and 25 items for teachers. Data is collected by online inquiries with students and teachers. According to the findings, the general degree of factors influencing anxiety from online instruction in primary school is at moderate level. Physical and mental elements, evaluation and course content are the categories of factors that have the most impact on students' anxiety toward online learning. Meanwhile, the factors that have the greatest impact on students' anxiety toward online learning are concerning about their grades and courses are extremely recorded. Students believe that online learning is more challenging than traditional classroom. At the same time, teachers are worried about online assessment, concerns about students who are unable to attend online sessions. Teachers who only use computers to teach online have less anxiety than teachers who use computers, tablets, and mobile phones.

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## 1. INTRODUCTION

To help our children and schooling combat the growth of COVID-19 pandemic, the Ministry of Education of Thailand was forced to close schools and shift the course model to all online formats. Educators and parents are key element for learning participation and success. As a result of the abrupt resumption of online classes and the continuation of online programs, teachers and students are directly impacted with social distancing, but learning is continued by suitable solutions. Such occurrences need students and teachers to adjust and adapt instructional strategies. They must learn how to use Google Classroom and Zoom Meeting to deliver online instruction. Meet Hangout, Google Form, Line, Facebook, YouTube, and other similar online services [1]–[4].

An internet learning class in the form of a computer, employing current technology and internet networking, is known as online learning through the period time of pandemic crisis. To create high-quality interactive studies without the need to travel, simple and rapid access learning in any location, at any time,

offers a lifetime education for the population, and online teaching is an education through the internet alone [5], [6]. Students have the option of studying whatever they want based on online instruction. All teachers and students can communicate, consult, and exchange ideas in the same way as ordinary classes do. The content comprises text, images, voices, video, and other multi-medias, all of which are directed to learners using the personal computer or smartphones [7]–[9].

Despite being the most appropriate mode of learning during this outbreak and having numerous benefits, online learning has struggled to gain favor. It has a number of drawbacks, including the fact that instructors will not be able to observe students' behavior. It includes learning behaviors which should be addressed by the educational system. Some students might not have the necessary equipment to learn online [10], [11]. Some of them are unable to learn on their own, while others with unclear learning objectives will find it difficult to enter. These students have been known to drop out of school as a result of the online learning system [12].

Many people are faced with feelings of tension, anxiety, isolation, and a variety of emotions that lead the desired age to live with friends when studying online and living at home. Instead, to stay in the house and not know what happened to COVID-19 pandemic. When it comes to close the more stories about children who choose to end their lives due to stress becomes more common [13]. Having a private area is shocking for society, or even if the home situation is negative. While children who are beginning to require greater solitude may constantly find themselves. Another thing to remember is to do a lot of homework, studying online is a significant strain because adjusting to new classrooms is already stressful [14], [15]. More homework is still required. Some children may not understand both lessons and be required to complete homework in lessons that they still do not comprehend, putting them under further stress.

The online learning is not new to education, but it is accelerated by COVID-19 pandemic. Schools have to employed appropriate method of instructional strategies by allowing students and teachers in the right learning area. The previous studies [16]–[19] reported that learning environments and instructional practices move from traditional into virtual classrooms. Teachers and students must adapt themselves to face with new methods and tools of instruction. They are facing new experiences and uncertainty of learning activities i.e., signal lost, readiness of devices, lack of smartphone, unsupport of online program and applications. They are mostly unfamiliar and less readiness to online environments, it may be cause learning stress or anxiety. That's the study aims to explore primary teachers and students' anxiety toward online instruction during COVID-19 pandemic, the factors affecting anxiety related to online instruction of students and teachers in primary school.

However, there are numerous issues with online learning equipment. There may be issues with quality, wifi and internet signals, or even study tools because some homes do not have them. While others may have many students, resulting in a lack of resources. Parents must also be aware of their child's stress signals to determine whether or not their child's online learning is experiencing difficulties [20]. While adults cope with stress daily, it's vital to remember that children have limitations in terms of coping with their own stress and mood. Some adults can cope well, but some children are unable to. Parents' involvement, children's participation, teachers, and school personnel must provide suitable way of learning to live with anxiety.

As a result of this impact, the researchers were interested in studying the factors affecting anxiety from online teaching in the COVID-19 pandemic situation of students and teachers, to explore the causes of anxiety caused by students and teachers so that those involved could take such information to work, to find solutions and assist students and teachers in the future [21]. It will be able to adjust to more effective online teaching and reduce the anxiety of students and teachers.

## 2. RESEARCH METHOD

This survey research was designed to collect data from primary teachers and students on the factors that affect anxiety in online teaching. The informants were 127 students and 11 teachers based on the purpose of the research. They were sampled by volunteering method and introduced the purpose of study. Questionnaire concerning general student data, such as gender, grade level, online study equipment, and online learning channels. Factors influencing anxiety in online education in the context of the COVID-19 pandemic, with 23 items for students and 25 items for teachers, the question is a 5-level rating scale. The questionnaire, which had a 5-level estimation scale from highest to lowest meanings, was emailed to respondents via an internet survey. For analyzing ranges 5-1 score by meaning of opinion in highest, high, moderate, low, and lowest, each item can be listed with 5 levels of mean.

The appropriateness of the question, the clarity of language usage, the suitability of the topic, in the questionnaire, the elements that affect anxiety in online education were all confirmed by three experts. Data is collected by online inquiries with students and teachers, which are targeted through Google Forms, and then the integrity of online surveys is verified. Percentage, mean, and standard deviation were employed in

data analysis. The following five levels of mean can be used to estimate and evaluate their opinions: highest (4.51-5.00), high (3.51-4.50), moderate (2.51-3.50), low (1.51-2.50), and lowest (1.00-1.50).

### 3. RESULTS

#### 3.1. Students and their learning anxiety

Students used smartphone 114 (89.75%), computer 22 (17.33%), and tablet 14 (11.02%). When channels for communication consisted of Google Form, Google Meet, Youtube, Zoom, Line, Facebook, Messenger, Speed dial. Overall, the anxiety of primary students is at moderate level, however three areas with extreme anxiety among fifth graders were physically and mentally is at moderate level the evaluation the subject content is at moderate levels. The physical and mental factor ranges lowest to moderate levels while education capabilities factor ranges low to moderate level, as can be see in Table 1.

Table 1. External factors toward students' learning anxiety

Item	M	S.D.	Anxiety level
Physical and mental			
Students have headaches when studying online	2.26	1.11	Low
Online learning makes students feel anorexic	1.82	1.19	Lowest
Online learning causes students eye strain	3.03	1.36	Moderate
Online learning causes students to ache in their bodies	2.76	1.37	Low
Students can't concentrate on online learning	2.78	1.32	Low
Students are unhappy from studying online	2.80	1.42	Low
Students are anxious to study online	3.09	1.37	Moderate
Students are discouraged from studying online	2.69	1.37	Low
Learning capabilities			
Students feel uncomfortable not being able to ask teachers when they have doubts	2.55	1.46	Low
Students feel that online learning prevents students from improving themselves	2.53	1.42	Low
Online learning allows students to search for information and access a wide range of learning resources	3.46	1.21	Moderate
Online learning gives students more time to review their homework	3.06	1.25	Moderate

The amount of learning anxiety of primary students who investigate external factors may be characterized as follows: students were found to be concerned about online learning is moderately, online learning causes eye strain, and students are dissatisfied with online studying. Students feel uncomfortable not being able to ask the teacher when they have doubts because online learning allows them to search for information and access a wide range of learning resources [22]. Online learning gives students more time to review their homework, and students feel uncomfortable not being able to ask the teacher when they have doubts.

The result showed that students can be acceptable with online learning because they have learned method and strategies to deal with distance learning. The various tools of learning are now contributing and expanding to all school. Tools and devices are now developing to support their nature of learning, teachers invited familiar learning application, that is, they less learning anxiety to uncommon classroom [23], [24]. Learning anxiety is not at a high level it may have arisen as a result of pupils learning in a new environment for an entire semester and adapting to online learning. However, because the pandemic crisis cannot forecast when it will stop, it is important to prepare for the worst-case scenario [25]. Changing the learning environment and atmosphere can help with the external aspect. Table 2 illustrates the external factors that affect to their learning anxiety.

Table 2. External factors toward students' learning anxiety

Item	M	S.D.	Anxiety level
Environment and online learning environment			
Students are worried about choosing an online school place problems studying online	2.19	1.27	Low
Students are worried about internet signals	2.82	1.57	Low
Students are worried about their online learning equipment	2.18	1.35	Low
Students are worried about internet service fees	2.89	1.29	Low
Subject contents			
Students feel that the subjects they take are very important to the students	3.63	1.31	Moderate
Students feel more difficult to study online than normal classes	3.50	1.47	Moderate
Students are anxious about the content	2.89	1.28	Low
Activity/Homework			
Students are concerned about the number of workpieces assigned	3.13	1.37	Moderate
Students are anxious that they will not be able to work in time because there are many subjects	3.44	1.48	Moderate
Evaluation			
Students are nervous about their academic performance	3.74	1.40	Moderate
Students are nervous about online exams	3.46	1.45	Moderate

Students were found to be less concerned with picking an online study location. Students were concerned about internet service fees, internet signal, and online equipment are at low levels. Students believed that the subjects were highly important to them, that studying online was more difficult than typical, and that content was less relevant to them at moderate levels, according to the course materials.

Students were concerned that they would not be able to complete their work on time due to the numerous subjects offered to them, and that the amounts of allotted pieces were moderate. Students were concerned about their academic achievement. Hence, students who were nervous about the online exam were nervous at moderate levels, according to the evaluation. In the final section of the questionnaire, the researchers provided students with feedback on online learning to alleviate anxiety associated with online education. They want teachers to find enjoyable and engaging content to teach, to demand games to be played in the online classroom that correspond to the topic, to minimize homework a little, to compel teachers to share a video before conducting the exercise, and to allow students to ask questions.

### 3.2. Teachers and their teaching anxiety

The demographic information can be summarized that teachers used different devices for making communication with others and online teaching. smartphone, computer, and tablets are most used. The channel and application widely used consisted of Google form, Line, Youtube, Google meet and zoom as the following. The factors affecting teachers' online teaching anxiety is moderate. When considering the individuals, three areas had the greatest impact on teacher anxiety: evaluation, second only to activity/homework, and subject content are at moderate levels. More details are shown in Table 3.

Table 3. External factors toward teachers' learning anxiety

Item	M	S.D.	Anxiety level
Physical and mental			
You have headaches when teaching online	1.73	1.01	Lowest
Online teaching causes you eye strain	2.81	1.47	Low
Online teaching causes your body aches and pains	3.00	1.26	Moderate
Online teaching makes you feel anorexic	1.63	1.29	Lowest
You can't concentrate on online teaching	1.91	1.04	Lowest
You are unhappy from online teaching	2.91	1.45	Low
You are nervous about teaching online	3.45	1.37	Moderate
You are discouraged in online teaching	2.54	1.29	Low
Teaching capabilities			
You feel uncomfortable not being able to ask students to check their understanding immediately	4.10	1.04	High
Online teaching prevents you from improving	1.73	0.9	Lowest

Internal factors revealed that teachers are anxious to teach online at a moderate level, unhappy from teaching online at a low level, and less frustrated in online teaching at a low level. Teaching abilities suggest that they are uneasy about not being able to ask students to check their understanding right away, which is at a high level. They are unable to improve because of online instruction needs adaptation to learn new learning environment [26]. However, the external factors are also investigated and showed in Table 4.

Table 4. External factors toward teachers' learning anxiety

Item	M	S.D.	Anxiety level
Teaching environment and atmosphere			
You are worried about choosing an online place to teach Problem during online teaching	2.09	1.30	Low
You are worried about students who are unable to attend online classes	4.55	0.52	High
You know how to use the application to teach online	3.64	0.81	Moderate
You are worried about choosing an application to teach online	2.82	0.75	Low
You are worried about online teaching equipment	2.82	1.17	Low
You are worried about internet signals and internet service charges	3.00	1.48	Moderate
Subject contents			
You feel that the subjects taught are very important to students	4.36	0.81	High
You feel that it is harder to teach online than to teach normally	3.73	1.27	Moderate
You are anxious about the content that must be practiced when teaching online	3.17	1.17	Moderate
Activity/homework			
You are concerned that students will not be able to work in time because there are many subjects	4.18	0.98	High
You have difficulty not being able to fully counsel students	3.81	1.17	Moderate
Evaluation			
You are concerned about your online exams	4.09	0.83	High
You are anxious to assess it according to the actual condition	4.40	0.67	High
You are concerned that what is assessed by online teaching will not cover all aspects of the student's development	4.55	0.52	High

The findings revealed that anxiety is influenced by external elements in the teaching environment and atmosphere. Teachers' anxiety about picking an online teaching location is at an all-time low. They are very concerned about students who are unable to attend online classes, they know how to utilize the program to teach online, and they are concerned about internet signals and internet service rates are at moderate levels, according to the problem with online teaching based on adaptation in new technology [27]–[29].

Teachers believed the subjects taught were highly essential to students since they were at a high level, according to the subject contents based on national curriculum. They also believe that teaching online is more difficult than usual, that the content must be completed while teaching online, and that they are concerned about this situation [30], [31]. Students were concerned that they would not be able to complete their work on time since there were so many courses at a high level, and they were having problems mentoring students at a moderate level. They were afraid that what was examined through online instruction would not cover all parts of the student's growth at a high level, according to the evaluation. Real-world assessments and online tests are quite concerning to them.

Schools and educational institutions should provide support and materials. If online teaching is to continue, online teaching equipment and resources for students and teachers must be developed to eliminate anxiety issues [32], [33]. Teachers should prepare to create a variety of online learning activities and materials that are appropriate for students of all ages. If Thailand fails to contain the COVID-19 outbreak and continues to educate its children. This may help students cope with the stress of online learning through the concept of technological pedagogical content knowledge which teachers can tailored their classroom activities to students' needs [34], [35].

#### 4. CONCLUSION

The factors that have the greatest impact on students' anxiety in online learning concerns about their grades and courses are extremely important. They have stress about online learning is more challenging than traditional classroom since they must utilize their mobile phones. The evaluation element, activities/homework, and course content that are the categories of factors impact on teachers' anxiety. At the same time, teachers are worried about online assessment, students who are unable to attend online sessions. Teachers who only use computers to teach online have less anxiety than teachers who use computers, tablets, and mobile phones to instructional practices.

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