A Study of Current Conditions and Guidelines for Measuring and Assessment of Learning in the COVID-19 Situation at Secondary School in Udonthani

Piyawan Prapipek[1], Darunee Khamapanai[2], Itnanat Nunkaew[3], Boonchom Srisaard[4], Apantee Poonputta[4], Sawitree Ranmechai[4], Songsak Phusee-orn[4] & Yannapat Seehamongkon[4]

[1] Nonsa-adchumsaengwittaya School, The Secondary Educational Service Area Office Udonthani, Udonthani, Thailand

[2] Nakhawittayakom School, Mahasakham Provincial Adminsirative Organization, Mahasarakham, Thailand

[3] The Secondary Education Service Area Office Mahasarakham, Mahasarakham, Thailand

[4] Faculty of Education, Mahasarakham University, Thailand

Correspondence: Yannapat Seehamongkon, Faculty of Education, Mahasarakham University, Thailand 44000.

Abstract

This research aimed to investigate the current conditions in measuring and assessing learning, particularly in the COVID-19 situation at a secondary school in Udonthani.   Data was collected qualitatively through interviews with a school director, academic supervisor, teacher, student, parent, and supervisor. The data were analyzed and categorized into themes. The results showed that measuring and assessing the behavior of standards, indicators, and each student's objective is essential but has yet to succeed. Therefore, teachers may need to modify the methods and criteria used for planning and implementation. We should emphasize modifying the measurement and assessment methods and criteria to suit the school context and the learners' conditions.

Keywords: current conditions, guidelines, measurement, assessment, COVID-19

1. Introduction

In the "new normal," the world is adjusting to the crisis caused by the Covid-19 pandemic, resulting in changes to work and daily life and causing stress and the need for adaptation. This situation has led to new technologies, which are increasingly important for humans to adapt. However, there is also the challenge of being replaced by technology (Panyathorn et al., 2020). Teachers are adjusting to these changes in the education sector by incorporating online instructional management into their teaching methods. Online learning concepts, such as distance learning, are being widely used, and there are many resources available, including Open Education Resources (OER), Open Courseware (OCW), and Massive Open Online Courses (MOOC) (Karnouskos, 2017). Covid-19 has acted as a catalyst for more advanced online instructional management. Executives must seek opportunities to turn the crisis into an advantage for the organization by focusing on its development in various forms (Wongkrai, 2020).

The COVID-19 pandemic has significantly impacted the world population, with the number of infected patients and deaths increasing rapidly. The World Health Organization has led to declaring it a pandemic. The outbreak has caused significant changes in human behavior, affecting various sectors such as the economy, society, tourism, technology, and education. Educational institutions, which typically have large gatherings of students, have been particularly affected by the epidemic, as there is a high risk of transmission of the virus from children to people in their homes. Such an outbreak could have far-reaching impacts on society, including teachers, parents, and older adults who may become infected by children. As a result, educational institutions are adapting rapidly by providing online instructional management, and information system developers are developing tools to help manage education and teleconferencing (Thonghattha, 2021). The development of online instructional management tools and teleconferencing platforms has undoubtedly been essential in ensuring the continuity of education during the COVID-19 pandemic. These tools have allowed teachers and students to communicate and collaborate remotely, facilitating distance learning and minimizing the risk of virus transmission. However, it is

essential to note that only some students have equal access to technology and the internet, which can exacerbate educational disparities (Bunpak, 2020, pp. 1-6). Regarding the situation in Thailand, it is essential to continue implementing preventive measures to mitigate the spread of the virus. As mentioned, colder weather can increase the virus's lifespan, making transmitting it easier. Therefore, staying home, reducing travel, and avoiding group gatherings remain crucial in preventing further transmission. Promoting vaccination and maintaining public health guidelines can also help control the virus's spread (Chokkhanchitchai, 2021).

It is important to note that the guidelines for the measurement and Assessment of learning outcomes of learners may differ depending on the educational system, level of education, and subject area. However, some general principles can guide the assessment process, such as aligning assessments with learning objectives, using various assessment methods, providing timely and constructive feedback, and involving students in the assessment process. In the context of the COVID-19 epidemic, remote or online learning has become more prevalent, and this may require some adjustments to the assessment methods used. For example, assessments may need to be adapted to suit the online format, such as online quizzes or assignments, and consideration may need to assess practical skills given to or group work in an online setting. It is also essential to consider the potential impact of the COVID-19 epidemic on student learning and to adjust assessments accordingly. For example, students may have had less face-to-face interaction with teachers or classmates, which may have affected their learning. Teachers may consider alternative ways of assessing student understanding and progress, such as through formative Assessment or project-based assessments. Overall, the guidelines for the measurement and Assessment of learning outcomes of learners in the context of the COVID-19 epidemic should aim to maintain the quality and rigor of assessments while being flexible and adaptable to changing circumstances.

2. Review Literature

2.1 Testing

Testing is a commonly used method for evaluating individuals or groups based on particular qualities or attributes. The information gathered through testing can be crucial in making informed decisions (Pinyoanantaponganan, 2002). In education, testing is an indispensable tool for measuring learning outcomes and assessing learners' abilities, knowledge, and skills. However, it is essential to consider that testing should be more than just the assessment form. It is crucial to supplement testing with other methods to understand a learner's performance better (Kernchanawasee, 2019).

2.2 Type of Test

a)   **Assessments can be categorized based on the number of test takers involved** (Worakitkasemsakul,

2013):

1) Individual testing measures the knowledge and abilities of an individual candidate.

2) In contrast, group testing evaluates a group's collective knowledge and skills, utilizing its members' unique talents to attain shared objectives..

b)   **Assessments can categorize according to the type of response they demand from the test taker:**

1) Paper-pencil testing tests knowledge and abilities through a question-and-answer format, with the teacher explaining the answers.

2) Oral testing evaluates communicative proficiency in a casual setting, requiring the test taker to articulate their responses verbally.

3) Performance testing evaluates knowledge and abilities by simulating real-life situations, allowing the test taker to demonstrate their skills by performing tasks based on the given scenario.

2.3 Measurement

Measurement is assigning quantitative values to numbers or symbols representing a particular feature of something using a specific set of rules (Piriyanuwat, 2012). A stimulus introduces the characteristic assessment to measure something, which prompts the subject to react somehow. This reaction makes the feature observable and measurable, and a number or symbol represents the quality assessment. The value expressed is the amount of behavior the subject exhibits in response to the stimulus, providing a quantitative measure of the feature evaluation (Sonkosum, 2002).

2.4 Evaluation

Evaluation involves judgment based on objective and unambiguous, known as absolute criteria. This type of assessment provides a comprehensive performance evaluation, such as comparing results with previous

assessments, evaluating performance concerning peers, or conducting self-assessment. Evaluation can help identify strengths and weaknesses, measure progress, and evaluate the effectiveness of learning activities and curriculum. The information gathered through evaluation can guide educational policies and improve teaching and learning outcomes, ultimately leading to better educational outcomes for learners (Malasri, 2011).

2.5 Planning and Assessment of COVID-19

The figure depicted in Figure 1 showcases the obstacles and challenges that educators may face when planning and evaluating educational programs during crises such as the COVID-19 pandemic. These challenges highlight the need for careful planning and evaluation during such situations to ensure effective and efficient educational responses. It is essential to learn from past experiences to navigate future emergencies better and improve the ability to respond to them. By doing so, educators can ensure they equip to handle educational emergencies, leading to better student learning outcomes.
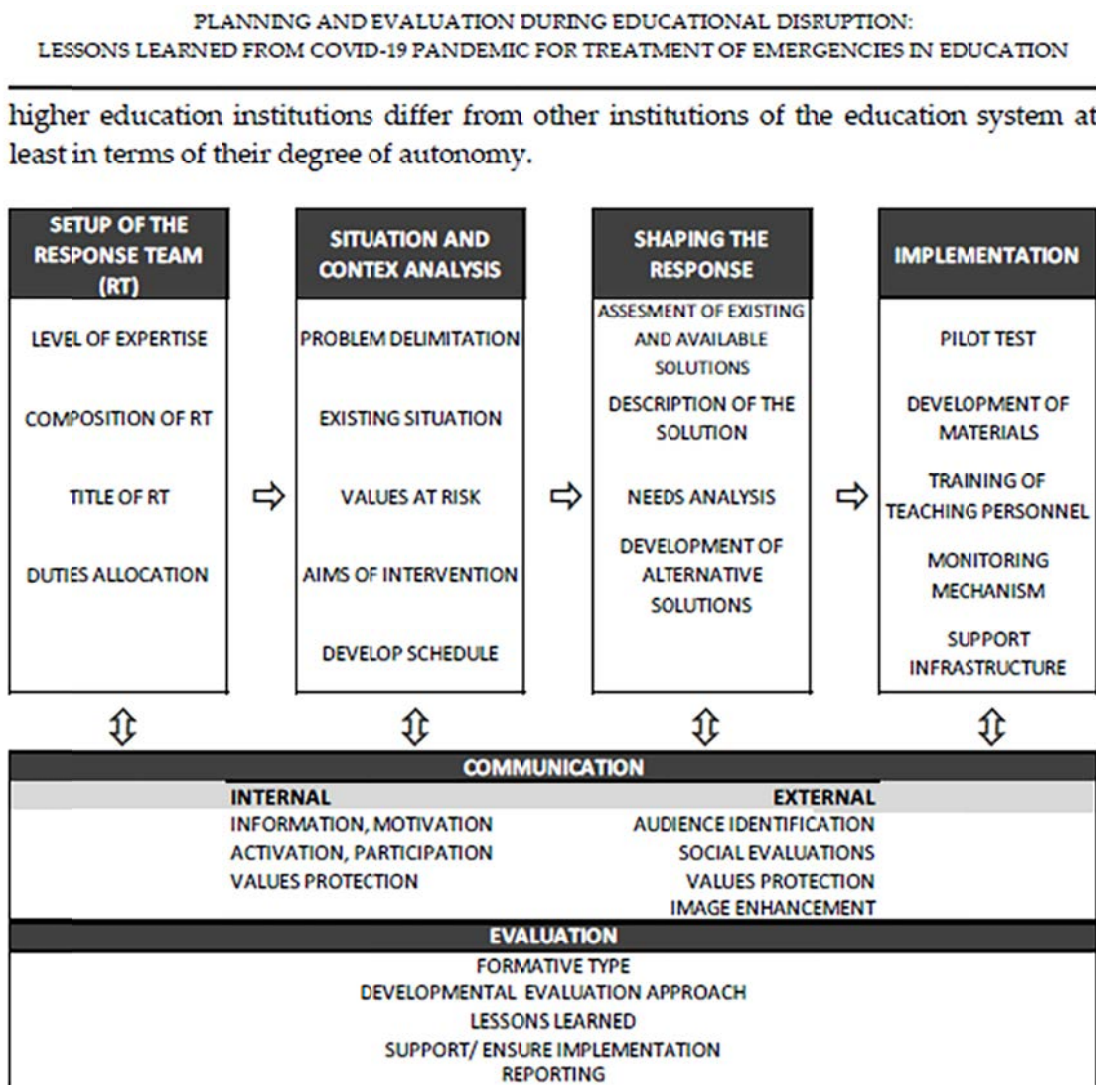

Figure 1. MEET model for education emergencies treatment

Source: Thanassis Karalis, 2020.

2.6 Guidelines for Measuring and Evaluating Learning

Educational institutions are responsible for establishing guidelines for measuring and evaluating learning outcomes. These guidelines should be consistent with the institution's teaching style and adaptable to different

situations. Adopting a flexible evaluation approach that goes beyond traditional testing methods is essential. Quality assessment should be a priority, as should the needs of the learners, in developing evaluation tools. By taking a holistic approach to measuring and evaluating learning outcomes, educational institutions can provide a more comprehensive view of student progress and ensure that teaching methods effectively promote learning. This education can ultimately lead to improved outcomes for learners.

The researcher focuses primarily on two evaluation methods regarding instructional management practices and measurement and evaluation in primary education:

1) Counting students' time on their studies and linking it to their learning styles. By understanding how different students learn, educators can adapt their teaching styles to suit the needs of each learner better.

2) Measuring and evaluating students' progress at various points, including between semesters and at the end of the semester or year. This approach allows educators to track their student's growth over time and identify areas where they may need extra help or support. By doing so, educators can adjust their teaching methods to address the needs of their students better and promote better educational outcomes. By utilizing these methods, educators can better understand their student's progress and adjust their teaching methods accordingly. This education can ultimately improve outcomes and better prepare students for future academic and personal success.

2.7 Formative Assessment

Evaluation during learning management is a valuable tool for promoting student growth and academic success. It provides educators with valuable insights into learners' needs and allows them to develop effective teaching strategies that foster learning and skill development. By embracing evaluation during learning management, educational institutions can create an environment that supports student success and continuous improvement.

2.8 Summative Assessment

Evaluation at the end of learning management involves assessing learners to determine the quality of their learning outcomes concerning established standards and assessment guidelines. This type of evaluation typically takes the form of grades or classifications that measure learners' intelligence levels (Tienworakarn, 2019).

2.9 Multi-attribute Consensus Reaching (MACR)

2.9.1 Concept

King and team discussed the concept of MACR thus:

Step 1: Conducting a MACR meeting group members into Homogeneous and Heterogeneous groups.

Step 2: In a MACR meeting, the democratic process emphasizes individual opinions and decision-making.

Step 3: All members of a MACR meeting must be made aware of the importance of sharing opinions and reaching a consensus.

Step 4: Qualitative and quantitative data can be used in a MACR meeting to analyze the meeting's outcomes.

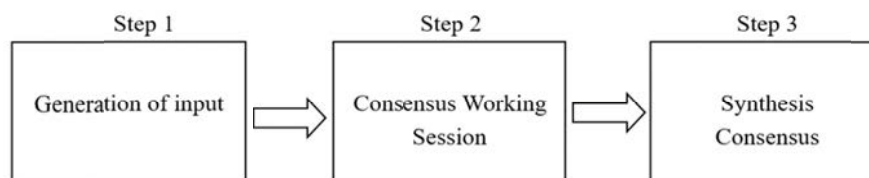2.9.2 Steps to Follow When Conducting a Meeting MACR

Figure 2. Procedures for conducting the meeting MACR

3. Method

3.1 Target Group

Step 1: Conduct a study to examine the current state of measuring and assessing learning during the COVID-19 pandemic. The study will involve 42 participants, including school directors, academic supervisors, teachers, students, and parents.

Step 2: Conduct a study to examine the guidelines for measuring and assessing learning during the COVID-19

pandemic. The study will involve 20 participants, including school directors, academic supervisors, teachers, and supervisors.

3.2 Instrument

Based on the information gathered from the study, develop a set of questions in consultation with experts. Create a list of open-ended interview questions and have them reviewed by experts using the Index of Consistency (IOC) to improve the quality of the questions.

Using the information gathered from the study, design the discussion topic. Develop multi-attribute discussion questions to facilitate consensus building (Multi-attribute Consensus Reaching: MACR). Have the multi-attribute discussion questions reviewed by experts using the Index of Consistency (IOC) to improve the quality of the questions.

4. Data Collection

Step 1: The study involved interviews with the school director and academic supervisor in gaining insights on measuring and assessing learning during the COVID-19 epidemic. This in-depth interview does through open-ended questionnaires administered to 16 teachers, 12 students, and 12 parents, allowing multiple perspectives to consider.

Step 2: Guidelines for measuring and assessing learning during the COVID-19 epidemic investigate through Multi-attribute Consensus Reaching (MACR). This interview involved the school director, 2 supervisors, an academic supervisor, and 16 teachers in generating multi-attribute discussion issues to achieve consensus. The same group of 16 teachers, 12 students, and 12 parents also interview to provide their perspectives.

5. Data Analysis

Step 1: Investigate the current methods for measuring and assessing learning during the COVID-19 epidemic. These in-depth interviews involve open-ended questionnaires with the school director, academic supervisor, 16 teachers, 12 students, and 12 parents to gain their perspectives.

Step 2: Investigate the guidelines for measuring and assessing learning during the COVID-19 epidemic. Use Multi-attribute Consensus Reaching (MACR) to gather the opinions and insights of the school director, 2 supervisors, an academic supervisor, and 16 teachers. This interview involves conducted with 16 teachers, 12 students, and 12 parents to identify best practices and guidelines.

6. Results and Discussions

Step 1: Investigate the current methods for measuring and assessing learning during the COVID-19 epidemic.

The study aimed to gain perspective from the school director, academic supervisor, and other stakeholders. Due to COVID-19, the Center for Disease Control of Coronavirus Disease (COVID-19) in Udon Thani Province required schools to refrain from on-site teaching. Nonsa-adchumsaengwittaya School suspended on-site teaching and shifted to teaching and learning through four different formats, including On Air, On Hand, On-Demand, and On-Line, focusing on On-Line and on-demand teaching. The school utilized measurement and evaluation principles based on the Basic Education Curriculum BE 2551. However, the context of Nonsa-adchumsaengwittaya School presented limitations in teaching and learning management, measurement, and evaluation, which sometimes needed to meet expectations due to student limitations. Teachers used flexible measurement and evaluation methods based on individual student needs, including integrated measurements and evaluations. Students were informed of the learning measurement and evaluation criteria in advance and were involved in setting the criteria for measuring and evaluating their learning. Parents were also made aware of the criteria for measuring and evaluating their children's learning. They were ready to cooperate in supervising teaching and learning activities to help measure and evaluate whether the school achieved its goals.

As such, an essential factor for measuring and evaluating the results of Nonsa-adchumsaengwittaya School is how to measure and evaluate students equitably, given the diversity of the student body.

Step 2: Investigate the guidelines in the measuring and assessment of learning in the situation of the coronavirus (COVID-19) epidemic.

Through Multi-attribute Consensus Reaching (MACR), the school director, 2 supervisors, an academic supervisor, and 16 teachers interviewed 16 teachers, 12 students, and 12 parents. The group concluded that despite school closures, learning must continue equally and without interruption, as it can occur anytime and anywhere. Thus, teaching and learning activities must organize, and measuring and evaluating learners' progress should continue. The Office of the Basic Education Commission has a policy that allows educational institutions

to adopt a management model suitable for their context and safety. The group developed a guideline for measuring and evaluating learning during the pandemic, taking into account measures to prevent the spread of COVID-19. The guideline emphasizes modifying the methods and criteria of measurement and evaluation to suit the learners' condition and the school's context.

7. Conclusions

The study's findings suggest that all students should have equal and consistent opportunities for learning. Even if schools are forced to close, learning should not stop; it can occur anywhere and at any time. Therefore, when an epidemic like COVID-19 occurs, it is crucial to continue organizing teaching and learning activities while measuring and assessing student learning. Educational institutions must adopt appropriate management styles for the local context, considering safety concerns. This measurement and evaluation will ensure that students' learning reflects their true quality and can be used to develop them further. A classroom measurement and evaluation guidelines develop to match the school's unique context. Educational institutions and teachers must follow a framework that emphasizes two critical approaches: 1) modifying measurement and evaluation methods and 2) adapting the criteria for measurement and evaluation in response to the COVID-19 situation.

Acknowledgments

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