Online Learning amid COVID-19 Pandemic: Providing Assessment that Ensures Meaningful Learning Experience

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Abstract

The paper aims to explore how assessment with principles can be utilized by a teacher during online learning in pandemic situation. Since at the end of year 2019, SARS-CoV-2 virus (COVID-19) has affected the global activities including education. Many governments decided to shift the education process from traditional face-to-face classroom to online learning either in synchronous or asynchronous modes. By utilizing systematic review as a method of study, the databases from ERIC, Google Scholar, and DOAJ were used to collect some articles that were related to the studies. These articles were selected through the process of identifying, screening, checking for eligibility, and deciding for inclusion. The findings indicated there are some modes of assessment that not only is it plausible, the varied kinds of assessment would also be a solution for the current real-life educational problems faced by the teachers.

Keywords: assessment, COVID-19, education, learning experience.

INTRODUCTION

Assessment is a crucial in educational process. While education is intended to creating and directing the path of students to play their roles as part of the society (William-White, 2016), assessment is a tool that can be used to ensure the goals of education are reached. Assessment is often only seen as a means to test students' abilities, even though the assessment has a role that goes further than that. Assessment as a method of measuring competence/performance of the students in certain domain also has a role as a basis of policy making that could affect the student's academic development that by looking at the data collected from assessment, teachers, principals, and all-related parties could decide based on the data. In normal times, assessment is administered in paper-and-pencil forms. However, the recent situation is different. Since COVID-19 emerged as a global pandemic, many schools have been forced to not have on-site classroom and shifted to online classroom. Therefore, this paper aimed at exploring how assessment with

online learning principles can be utilized by a teacher during online learning in pandemic situation so that the students would not miss out any learning experience.

Traditionally, there are some principles that should be considered by a teacher when conducting assessment. The principles of a good assessment include reliability, validity, authenticity, objectivity, practicality, and interpretability (Brown, 2003). Reliability refers to the re-productivity of the results of tests. A reliable test would have consistency in its measurement even if it is to be administered multiple times. Validity refers to the degree of whether it is measuring what it is intended to measure. It is considered valid if the test reflects the construct of the dimension for its purpose. Authenticity means that the method of assessment is specific to demonstrating or applying skills and knowledge as mentioned in the goals of the lesson. Objectivity refers to the accountability of the scorer or examiner in giving score or feedback. The people who are giving the score should be free from personal bias so that the given score would be objective. A test should also have the principle of practicality. It means that the test should be feasible to be done by both the test administrator and the test-takers. The test should also be economical and practical so that the test can be administered effectively and efficiently. Last, interpretability refers to what is imbedded on the score. It is common for people to interpret their competences based on the given score, however it is essential to ensure that the represented score is truly representing the interpretation of the competences. That is why there are some standardized tests providing their official written interpretation of the scores.

Our teachers have been trained to create or provide the assessment in normal situations. They could follow these principles to work on the tests they create to help evaluate their students. Now how could they shift the practice of assessing the students in the pandemic situation where most teaching and learning are conducted online? Are all of the principles applicable? How do teachers assess students' competences online?

RESEARCH METHOD

By following the research questions, (1) How do the teachers shift the practice of assessing the students in the pandemic situation where most teaching and learning are conducted online? (2) Are all of the assessment principles applicable in the online learning platform? (3) How do the teachers assess students' competences online?, the researchers utilized systematic literature review. A systematic literature review (SLR) identifies, selects and critically appraises research in order to answer a clearly formulated question (McNally, 2016). The systematic review should follow a clearly defined protocol or plan where the criteria are clearly stated before the review is conducted. A set of process of inclusion was to be done that include identifying, screening, checking for eligibility, and deciding for inclusion.

In collecting the data, three academic databases for literature search namely ERIC, Google Scholar, and Directory of Open Access Journals (DOAJ) were used. There are some keywords that were used for data source identification: assessment in education, principles of assessment, testing, evaluation, online assessment, and authentic assessment. Once the results were shown from each database, the next step was screening. In screening the studies from the databases, we used the criteria of inclusion and exclusion for this study. Those papers which were further not related to education were excluded for example employee assessment, crime assessmet rate, and other unrelated keywords. The criteria were set accordingly with the research questions relevant to the studies. The relevant criteria were the keywords that include: learning, online platform, assessment, online assessment, assessment tool, educational

assessment, and online learning experience. If they are relevant, they will be screened and vice versa. By following the inclusion process, 12 studies were included. The data were extracted and analyzed. The results of analysis were presented in the finding sections and discussed.

RESULT AND DISCUSSION
The shift of assessment practice

In the beginning of year 2020, COVID-19 has vastly spread in many countries. As preventive action from the government from school cluster, most schools were forced to stop operating from face-to-face mode to online modes. Indonesia, for example, started to have online class since March 2020 and continues until now. Many teachers had to learn how to use online platform in an unimagined way fast. There was no time for training. The policy came out of a sudden. Many studies indicated this quick change. Below are some articles that are indicating the shift.

First, a study by Dhawan (2020) reported unexpected shift from traditional mode of learning to online learning. The researcher explored strengths, weakness, opportunities, and challenges as well as reported the raise of *startups* in educational field that is based on online learning. It was indicated from the study that online learning is likely during disastrous times. However, since online learning requires infrastructure and readiness as prerequisites, not many were up to online learning. Second, the above situation is supported from another study reporting that although teachers are aware of the should-change-now situation amid the pandemic, they face a lot of obstacles in the implementation of online learning such as the availability of the facility, internet connection, lesson planning and evaluation, and teacher-parent collaboration (Fauzi & Khusuma, 2020). This study, as expected, reported that 80% of the teacher who were involved felt dissatisfied with online learning. Third, focusing on the students a study is conducted by identifying the students' perspectives towards online learning during COVID-19 situation. The results of the study showed that many students did not feel much comfortable with online learning due to lack of face-to-face social interaction, slow response time and of course the technical problems that often happens because of infrastructure that was not ready (Adnan & Anwar, 2020). Fourth, Allo (2020) conducted a study that surveys problems faced by the students but in the method of case study in order to dig deeper information. He reported that the very common problem is still with infrastructure, lack of instructional design that could meet the students need and excessive task without preceding explanation made online learning difficult for the students. Therefore, the fifth study recommended thorough training for the faculty members in online learning instruction as well as the change from cognitive loads in their leaning design to interactivity (Mukhtar et al., 2020).

All of the studies above indicated the teachers have difficulties, let alone, in online classroom and of course in creating the evaluation or assessment. The evaluation might not be reliable nor valid if the process of leaning itself is not well represented. Similar to the general problems that are faced by both teacher and students like infrastructure, connections, instructional designs, and interactions, assessment also faced such difficulties in online learning (Adnan & Anwar, 2020; Allo, 2020; Dhawan, 2020; Fauzi & Khusuma, 2020; Mukhtar et al., 2020). Teachers should consider on testing their test. They need to check and recheck if their online assessment can fulfil the principles of assessment reliability, validity, authenticity, objectivity, practicality, and interpretability.

There are some platforms that can be used to assess the students online. Some of them are google forms, *zuvio*, google classroom, *ruangguru*, *moodle*, etc. These platforms provide some user-friendly interface for the teachers to create assessment and even help scoring the work automatically if set with an answer key. It supports the practicality in doing the standardized test. Some of these platforms also support for collecting the students' portfolios and video logs. So not only do they provide assessment tools for standardized assessment, they also support for the alternative assessment. The remaining question is that they would still be compatible with the principles of assessment which is discussed in the following section.

The principles of assessment in online platforms

In general, as a fundamental part of learning, assessment plays crucial role in education and its principles should not change whether it is done online or offline. However, the techniques and the design of assessment should be negotiated with the online learning that is completely different from offline. Teachers need to add some more aspects that previous studies have proposed to conduct online assessment which is suggested based on the empirical evidence and supported by theories.

Online assessment creates challenges for teachers since it is to be conducted in a distance place. Kearns (2012) studied the challenge and effective practices of assessing students online. In her two-phase study, she started with reviewing 24 online courses to find out the instructional method that contribute to students learning evaluation and found there are five categories emerged: written assignments, online discussion, fieldwork, quizzes and exams, and presentations. Then, in phase two she invited eight online instructors in focus group discussion and interview. The finding showed that two things are in need to be done for online assessment. First, in order to advance the learning, the fairness of judgment and feedback can be done. In doing so, teacher must collect data to serve as evidence. It would describe the assessment. Hence, feedback can be given according to the data. Second, constraints are unavoidable; therefore, teacher should consider the interaction-ability in online facet, the need of competencies for utilizing online tool and technology, and workloads.

Some other innovative kinds of online assessment were also proposed. In a study published in Journal of Asynchronous Learning, some of assessments that can be done other than traditional kinds of testing are the collaborative construction of knowledge bases, the collaborative investigation of scientific phenomenon, group engagement in game-like learning task or simulations, peer review and evaluation of learning products, online peer mentoring, collaborative analysis of case studies, and collaborative discussion groups (Swan et al., 2006). Although these alternatives are believed to be one of the solutions in conducting assessment online, the author did mention that the implementation require much work especially in collecting data for feedback and giving the feedback itself. So, the principle of practicality should be equally considered and the issue of practicality can be addressed with the advancement of technology. Some peer assessment and interactive feedback can be given by a teacher to their students once the environment and infrastructure are supporting (Rayens & Ellis, 2018).

Not only that, the assessment online should also consider the Quality Matters (QM) principles (Gibson & Dunning, 2012). Several key components to quality course design were offered by the authors such as alignment of standards, interaction and activities, as well as assessment and measurements. These components, if well-considered, would help teachers in developing online assessment that would benefit both teacher and students to achieve the goals of learning.

Assessing competences and alternative assessment

Alternative assessment is not new in education, and yet very popular among many countries proven by extensive used of standardized test as a method of determining students' graduation. In the pandemic time, teacher could consider the use of alternative assessment for providing the data of evaluation and feedback of the teaching and learning process. Alternative assessment is used rather to measure what the students can and cannot do rather than what the students do and do not know (Bradley, 2021). The alternative assessment offers some benefits like assessing the skills that cannot be measured with traditional standardized test, providing realistic learning experience, focusing on the performance and work quality, and aligning with the learning goals and outcome.

There are many variances of alternative assessment that can be used to assess students' competence such as portfolio, lab experiments, surveys, critics, debates, student-led inquiry, collaborative works, blogs, vlogs, etc. These assessments require different method of scoring where the scoring usually involves individuals as scorer or examiners. The examiners are expected to score based on the evidence exhibited by the students. Aided with rubric for scoring, the examiners should follow the principle of objectivity and transparent.

In the pandemic situation where, online learning is the only choice of the schooling, alternative assessment is one of the options that can be done by a teacher by considering the principles such as reliability, validity, authenticity, objectivity, practicality, and interpretability. They can follow these principles when designing the authentic tasks to measure what can and cannot be performed by the students when they are learning at home. This alternative activity can be solution where learning at home is usually limited in terms of experience. It can provide more opportunities for both teacher and students (Monib et al., 2020). By ensuring the tasks are doable and aligned with the learning goals, alternative assessment can be used as a means to ensure learning experiences are still meaningful.

CONCLUSION

A sudden change of the world health problem because of COVID-19 pandemic have forced schools shift their learning from traditional face to face classroom to online learning. Many studies indicated that either the human resources like policy makers, teachers, administrators or the infrastructures such as the internet connections and availability of the devices or the psycho-socio problems like lack of teacher-students interaction etc. have led to insufficient learning environment. This also influenced the assessment as part of the curriculum. Since it is critical to have good assessment as the standard of measuring the success of a classroom, the use of online platforms should follow the principles of assessment when creating tests or task performance and varied kinds can be utilized. Although it requires much more works for the students and teacher to work and evaluate, this way would help all stakeholders achieve the learning goals.

Further research is also suggested to develop online assessment with principles in various platforms that can be examined the degree of validity, reliability, authenticity, and practicality. Once ready, the effectiveness of the outcome as well as the attitudes towards variants of online assessment can be explored.

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