
Teaching-learning Assessment during the COVID-19 Era: An Indonesian Higher Education Experience

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Background

The unprecedented global phenomenon, COVID-19 pandemic has affected all life aspects, including education. The pandemic has shocked the teaching and learning processes at all educational levels, including higher education institutions (HEIs). Physical distancing policy to curb the spread of the COVID-19 has forced all learning processes to be conducted virtually. Although online learning is not a new phenomenon in HEIs, how it has given an abrupt shift to total online learning still surprises both students and lecturers. This phenomenon is also experienced by lecturers and students at Indonesian HEIs like Universitas Pendidikan Indonesia.

In the beginning of March 2020, when the Indonesian government officially announced the first COVID-19 case in the country, we were forcefully required to switch to online teaching, without proper preparation. Despite this abrupt change to online learning, this mode of learning is actually not really new to most of us. Technological advancement may provide today's learners of digital natives an increased learning enjoyment. At HEIs, for instance, learning technology increases coverage of learning materials and learners' engagement, making the learning process more effective and efficient. However, educators need to remain vigilant lest students miss the essential purpose of learning. Learning technology should be considered more as a means to increase learning motivation, and not for personal entertainment.

We need to make the best use of technology to support learning. What matters most is how the use of digital technologies can improve students' learning outcomes as the ultimate teaching goal. Teachers are to maximize these digital technology alternatives to achieve their predetermined teaching objectives. Determining relevant evaluation is as important as that of learning strategy and technology. Proper

evaluation of the usefulness and educational value of the developed solutions remains an indispensable condition for the successful use of educational tools, including online evaluation tools (Granic, Nakic & Marangunic, 2019). This paper will look at the empirical perspective related to the evaluation of learning outcomes based on our experiences during the COVID-19 pandemic. The discussion will cover the evaluation principles adopted, the forms of evaluation used, the various constraints and advantages of the online evaluation, and some conclusions from our evaluation practices.

The Impact of COVID-19 on Learning Assessment

COVID-19 pandemic has a significant impact on the teaching and learning processes at Indonesian higher education institutions, including at our university. One aspect that needs special attention in online learning is evaluation.

Principles of Evaluation

Evaluation does not have to be complex. It can be as simple as the old generic approach proposed by Howdyshell (as cited in Beirema, 2019), known as POP (Purpose, Outcome, and Process) — goals, results, and processes. These three elements are necessary to design and simultaneously carry out learning activities as well as to evaluate online learning.

First, all teaching and learning activities must have clear purposes. They serve as a guide for evaluation. Prior to online teaching, lecturers must be able to formulate and understand the goals of their teaching. These objectives will not only provide directions on how teaching and learning activities will be carried out, what learning materials for students to digest and understand, but also become a direction for measuring and evaluating the effectiveness of these teaching and learning activities. Questions about these

aspects are very important in reviewing the online teaching and learning activities.

Second, outcome means result. If the goal is the lecturer's achievement in animating teaching and learning activities, the outcome is the answer to the acquisition of students' skills or abilities. This outcome is commonly expressed in the form of a verb or verb phrase to show what students can do at the end of teaching and learning activities. Both purpose and outcome are important guidelines in evaluating students' learning activities.

Third, process is the effort to reach the goal or produce output. It refers to how the overall planning and substance are manifested in various classroom activities. The amount of substance must be proportional to students' time and ability. The activity steps must commensurate with the chunk of substance to properly achieve the overall objectives and output. Evaluation must address the effectiveness and efficiency of the whole teaching-learning process.

Another factor to consider in selecting learning materials and evaluating online learning is learning styles. Teachers need to investigate the relationship between learning styles, sense of presence, cognitive load, and affective and cognitive learning outcomes in an immersive virtual reality-based learning environment (Huang et al., 2019). Although students' learning styles do not affect learning outcomes, they influence feelings of subjective presence and cognitive load in the learning process. Affective learning outcomes require involvement, sensory sensitivity, and mental effort.

The other important factor in evaluating online learning is the active nature of learning. This active learning means a process that involves students on a topic with which they talk, act, create something together (Bierema, 2019). Active learning is also guided learning in which a constructivist process occurs. This is based on the belief that students learn best through interaction with environment and other students, allowing them to create meaning about the teaching material.

Evaluation in online learning activities need to take into account active learning position. This enables students to do most of their works, sharpen their brains, and express their views in various

forms. It is important because information and knowledge cannot be transferred to students simply by telling them what they need to know. Teachers need to provide students with a thinking challenge and involve them in organizing and applying their knowledge to phenomena in their environment. Active learning means developing students' responsibility for independent learning. Having received meaningful activities, students must think about and apply them to their environmental contexts. Active learning means shifting the focus of learning activities from lecturers to students. This also implies that the learning process is more important than subject mastery.

Forms of Evaluation

This paper mixes formative and summative evaluation. Broader than assessment, measurement, and scoring, evaluation can include assessment of the entire program and measure students' abilities. Formative evaluation tends to see the process as an important part of learning, because this evaluation is carried out at points when learning takes place. Online formative assessment can provide a means of aligning assessment with teaching and learning, and inevitably changes how learning and assessment occurs (Gikandi, Morrow & Davis, 2011). Often times, students complain about gaps between what is being taught and tested. Online formative assessment can reduce the gap between the substance of learning and what is measured, hence reducing the gap between what happens in the teaching-learning process and what appears in the assessment instrument. Assessing students' achievement when the learning process occurs will strengthen the overall assessment because summative will be strengthened by formative evaluation.

Formative assessment does not only record the development of student abilities but also provides quick feedback to improve students' performance. Formative assessment is not just a scoring process, but must provide diagnostic evaluation results to help students. Online learning activities provide sufficient data to carry out formative assessments, because it can record interactions between students as well as students and lecturers. The formative assessment should provide different feedback for students at various levels of learning such as assignment types, the learning process, and activity rules.

This assessment functions as feedback when students find it useful in developing their ability to understand and master teaching materials. Formative evaluation should serve as an investment to gain effective learning process. Clear assignments will help students absorb teaching materials more easily. In online learning activities, the feedback given to certain students is also digested by other students as a meaningful input. For instance, when feedback is given to a student displaying their reading, other students follow along and use the feedback for their own performance.

Furthermore, formative assessment also provides opportunities for lecturers to carry out continuous and authentic assessments. This assessment will not only stimulate active cognitive involvement of students but also encourage them to interact with their classmates on how to complete and present assignments in the online activity forum.

Our experience confirms this phenomenon. Students who at the beginning of the lecture were still nervous about the use of the various available online learning facilities could soon come up with attractive performances. At the beginning of the display, they used a flipchart to describe the information they had compiled. In the next activity, they could use the share screen in the Zoom application by making use of the slides they made, complete with video clips. Many of them even uploaded their full views on YouTube and on Google Drive. The authenticity of formative evaluation is characterized by an assessment of various students' abilities tested not only by the lecturer but also their classmates.

Our online learning is both synchronous (real time) and asynchronous (delayed). These two forms of learning can lead to different evaluations, and with different sources of learning evidence. During synchronous learning, we lecture using Zoom or Google Meet application with the real presence of participating students. Meanwhile, we also upload recordings of our lectures on YouTube, and then ask students to watch and listen them while completing some accompanying assignments to be submitted via email the next day. Evaluation activities in these two forms of learning are different. For synchronous activities, we usually prepare an evaluation rubric that will assess students' manners, language skills and contents, either questions or responses. Our classes are

all in English so language fluency is always a part of the assessment as a complement to students' content assessment.

We also provide asynchronous assessments. One possible form is an e-portfolio (electronic portfolio). E-portfolio is a collection of electronic evidence that is collected and managed by users, in this case lecturers, and usually placed in networks. The forms can be text input (emails, WhatsApp, and other platforms), electronic files, images, multimedia, blog posts, and hyperlinks, usually stored on web sites or in databases. However, we have just made use of this e-portfolio on a small scale.

Unfortunately, we have not made this e-portfolio openly accessible to all students as a basis for their individual accountability. Ideally, this e-portfolio can be used as a benchmarking for students to improve their performance by studying the e-portfolios of the same class. The openness and accountability of the e-portfolio assessment will be a tool to "force" the lecturer to prepare an assessment rubric for any form of document or other evaluation material that might be part of the contents of the e-portfolio. Only in this way can the reliability of the online scoring system be upheld.

As university lecturers, we have a philosophy about what and how to teach and evaluate learning. This belief will have an impact on the effectiveness of the teaching-learning activity. In online learning and evaluation, our beliefs about the steps and pedagogical assumptions need to be stated explicitly so that students will also feel inseparable from the overall teaching and learning activities. Both lecturers and students have to perceive the benefits of a learning approach. In the context of evaluation, for example, there needs to be an explicit explanation of the importance of formative evaluation, which will provide immediate feedback to students so that they can take other more effective steps.

The formative assessment of e-portfolio described above is one measurement of non-test evaluation. This choice does not imply exclusion from test-based evaluations. In our online learning, we also usually give test questions to see how far our students have acquired certain cognitive knowledge. Apart from this summative test, we also design diagnostic questions to measure the strengths and weaknesses

of students, at the beginning of their class. For this, we prepare two practical options; objective and non-objective. For objective test, we take advantage of the Google form, whereas for the non-objective one we use emails or WhatsApp line.

Constraints & Opportunities

Online learning may pose both constraints and opportunities. Challenges include access to networks, students' literacy of online learning facilities, as well as honesty and authenticity in evaluation. Meanwhile, the perceived advantages are time flexibility, the number of skills and abilities evaluated, and increased students' digital technology literacy.

Our experience has confirmed these two aspects. During the COVID-19 period, students at our university are required to be able to access teaching and learning activities by utilizing certain applications such as Zoom Meeting, Google Meet, YouTube, Google classroom, and Edmodo. They can just connect to and access these applications from their homes. Unfortunately, many of them do not have a reliable enough internet network, thus, disturbing the learning process.

Besides, our students' familiarity with online applications is diverse. Some can directly tune-in but others are still confused by application downloading. To overcome this issue, lecturers rely on asynchronous application like WhatsApp Groups (WAG). Not only is this application more accessible but it also allows less application-related proficient students to learn from more advanced friends. This condition sometimes forces students to study together, thus, possibly breaching the physical distancing policy of COVID-19.

Another issue in online evaluation is validity. Monitoring the originality and authenticity of test may be challenging. It is not easy to confirm whether our students do the assessment themselves. To address this challenge, we juxtapose the quality of students' answers with their interactions in daily online learning activities. Also, our evaluation needs to consider students' cognitive load. Since students have to make an extra effort when completing the assignments, they might find ways to reduce the burdens by sending a similar assignment to different lecturers.

Moving Forwards

COVID-19 has brought us to a new stage in the world of education, including higher education. Online learning has positively resulted in better technology-conscious gains. Students who seemed to be technologically illiterate at the beginning of the course, at a relatively short time, became technology-aware, and many even provided illustrations of the use of various online evaluation instruments when they presented their assignments.

Therefore, a comprehensive evaluation needs to be carried out so that it can create effective online learning at higher education institutions. The fact shows that nowadays with online learning, every individual can get meaningful education very easily based on real demand in the field. What remains is how the essence of interactive humanity with good humane behaviour can be cultivated, so that online learning and education can develop with essential human values.

In closing, it is necessary to follow Cowie and Jones' (2009) advice that "the planned changes leveraged by ICT can significantly increase student autonomy and the development of distributed learning communities" (p. 800). This enables us to focus on two important aspects in making use of this online learning: increasing student autonomy and developing learning communities among them. Since when the pandemic will end remains unclear, we cannot wait but adjust our educational practices to this new demand. COVID-19 pandemic should be considered more of a disguised blessing than a disaster.

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