



Classroom Action Research Journal 6(1) (2024) 1-9

Classroom Action Research Journal



Using Online Assessment in Learning during the COVID-19 Pandemic

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DOI: 10.17977/um013v6i12024p1-9

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History Article

Received 2 February 2024
Accepted 29 March 2024
Published 3 April 2024

Keywords

*Assessment, COVID-19,
learning, online.*

Abstract

The COVID-19 pandemic has brought many changes in education. School and lecture are done online. The assessment is also done online. Online learning needs students' integrity. They need to prevent all fraud or cheating during the exam or assessment. This paper aims to describe how to use the online assessment in learning during the COVID-19 pandemic. This paper is a literature review. Journals were taken from Science Direct and Google Scholar. The keywords were assessment, COVID-19, learning, online. After screening by the title, abstract, and full text, there were 12 journals. Online assessment can be given by google form, excel, and quizzes. Innovative approaches are needed to prevent students' cheating. Assessment can be given individually. The score can be given automatically after the assessment is done. The assessment system is made as simple as possible to make the student easier in doing the assessment. Conclusion: Giving online assessment in learning during the COVID-19 pandemic can be given by concerning the assessment difficulties, giving simple instructions, and minimalizing the possibility of cheating.

How to Cite

Yuliana. (2024). Using Online Assessment during The COVID-19 Pandemic. *Classroom Action Research Journal*. 7(1), 1-9

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e-ISSN 2598-4195

INTRODUCTION

The COVID-19 pandemic has brought many changes in the world of education. School and lectures take place in an online way to reduce the transmission risk of COVID-19 infection (Putri & Suparmi, 2020). The process of giving material and online assessment needs the availability of infrastructures such as the internet, the teachers' and lecturers' ability, and the readiness of the students. Online assessments are usually done through a google form, excel, and quizzes. An innovative approach is needed to provide assessments. This is essential to prevent students from cheating. Online learning and assessment require the integrity of the students. They are expected to avoid all cheating tricks during the exam and assessment process (Putra & Siwi, 2021; Suryani, 2020).

The process of learning that only occurs in one direction is not relevant anymore to be applied nowadays. The reason is this kind of learning will decrease the students' creativity and the nature of learning. The important concept needs to be memorized and applied in practice. In the process of becoming an accountant, innovation of learning and assessment are needed. It is very critical to produce an accountant who can perform the analysis of financial data skillfully in the future. We need an active student who can think critically. They must have creativity (Latifah & Susilowati, 2011). The success rate of the students must not be measured from the assessment result alone, but it must involve the whole process of learning. It will be fairer because the whole process reflects the aspects of cognitive, psychomotor, and affective (Ismi & Syamwil, 2021).

The 21st century is a modern era. It requires an increase in the quality of the human resources through the educational process. Education quality is very dependent on the assessment mode. Performance-based assessment is a good method of assessment. It combines the teaching process and assessment. This model can be used to assess critical and creative thing competencies. Another advantage is this model can be used to measure cognitive, psychomotor, and affective abilities. It is inappropriate if the assessment measures cognitive only. By using performance based assessment, it is possible to measure performance, skills, reasoning, communication ability, knowledge, and problem-solving skills altogether (Anix & Fauziyah, 2018).

The selection of the assessment should be made based on the ability of the teacher, student, and the feasibilities. The teachers should stimulate the students to apply skills and knowledge in real practice. The assessment must be chosen based on the process. A good assessment does not assess the result only, but it can also assess the affective, cognitive, and psychomotor aspects. All learning processes are important to observe and assess. The performance is better to be assessed than cognitive aspects only. Assessment of performance means assessment of skills in speaking, arguing, and giving an opinion. Those aspects of skills can reveal how the students understand the learning content in a comprehensive way (Anix & Fauziyah, 2018). There are four dimensions in academic assessment, namely skill, emotional, interaction or participation, and performance. The most important aspect of assessment is the skill (Satuti et al., 2020).

This paper aims to describe how to use online assessment in learning during the COVID-19 pandemic.

LITERATURE REVIEW

Performance-based assessment is a specific strategy to assess knowledge, skill, and performance. Assessment and assignments are given through a special learning model to create a more dynamic, varied, and active learning situation. Performance-based assessment can be used to assess the cognitive level with various subjects (Anix & Fauziyah, 2018).

The characteristic of performance-based assessment is integrative. It is a combination of assessment and teaching strategies. This model emphasizes the process. A good process is more important than a result score. The skill in problem-solving real-life issues is more critical. This process requires critical thinking and good reasoning skills. Students must be taught how to solve problems from various points of view. Students should try to explain the information, then understand the existing problems, and provide several solutions to the problems given (Anix & Fauziyah, 2018).

Performance-based assessment can also be used as a strategy to explore the potential, interests, and talents of the students. The intellectual capacity will be honed deeply if the teachers use Performance-based assessment models. Some critical thinking skills and analysis, namely digging the knowledge, comparing, induction, deduction, making abstract, and investigating will be taught. When the students can solve the problems, their self-confidence will be enhanced. The ability to solve the problem quickly and in the right way will increase motivation to learn. It is important to introduce the students to real-life after graduation (Anix & Fauziyah, 2018).

Assessment models consist of five components such as (Sudiyanto et al., 2015):

1. Goal
The goal comprises of learning outcome, indicator, and successful criteria
2. Structural tasks
3. Self-assessment
4. Peer-assessment
5. Feedback

Therefore, teachers need to help students in accomplishing the goal, doing the structural tasks, self-assessment, peer-assessment, and giving feedback assessments. It is shown in Figure 1 (Sudiyanto et al., 2015).



Figure 1. The Model Assessment as Learning (Sudiyanto et al., 2015)

There are also other effective assessment models from Leahy et al., Haritage, and Mc Millan & Hearn. Leahy et al. divided the learning process into five components, namely (Sudiyanto et al., 2015):

- a. Describe the goal of study and success criteria
- b. Design class discussion, questions, and learning task effectively
- c. Giving feedback
- d. Encourage student
- e. Encourage peer assessment in the class

Haritage describes seven important components in learning assessment following (Sudiyanto et al., 2015):

- a. Set learning goals and success criteria
- b. Achieving the learning outcome
- c. Interpret the learning outcome
- d. Identify the learning gap
- e. Give the feedback
- f. Adapt and respond to the learning needs
- g. Close the gap

Mc Millan & Hearn make three components of learning, namely (Sudiyanto et al., 2015):

- a. Set the learning goal
- b. Introspection of the next step
- c. Self-assessment of learning progress and the achievement of learning goals

There are some challenges in online learning, namely technological challenges, pedagogical challenges, and social challenges. The descriptions are (Ferri et al., 2020):

- a. Technological challenges

Technological challenges comprise of:

- access to the infrastructure of online learning such as technological devices (gadget, smartphone, computer, laptop, etc.)
- An Internet connection with a high-speed broadband connection
- Insufficient bandwidth causes delays or connection failures during online classes, lessons, and video conferences. However, not all geographical areas have a broadband connection. This condition causes a structural gap and an obstacle for learning and people connection. When the broadband internet connection is a problem, e-learning days and the digital learning environments will collapse during
- Governance action and policies related to the internet connection such as adoption of 5G need to be accomplished.
- Government must provide the best technologies, approaches, and online learning classes broadcast via television for primary, secondary, and high school students to facilitate learning at home for children. Using

television altogether in one family is important to study together, especially for families in the rural areas.

b. Pedagogical challenges

Pedagogical challenges are:

- Teachers lack skills in utilizing technology in teaching and not all students are familiar with the online learning system.
- Therefore, training and guidelines of online teaching are needed for teachers and students
- Teaching materials are needed. They must be made in interactive multimedia such as images, educational games, and animation. Those interesting materials will enhance the students' engagement in class and maintain their motivation
- Lack of students' feedback
- Lack of evaluation system
- Innovation in teaching methods is needed to stimulate the students' proactive behavior. This is quite difficult in online learning. The teacher needs new approaches to keep the students' attention and participation.
- Therefore, teachers, students, and parents need to enhance their technical skills and digital literacy.

c. Social challenges

Social challenges mean:

- Lack of suitable home learning environment
- Lack of parents' support
- Less teacher-student interaction in online teaching

Therefore, blended learning is suggested. Blended learning is the combination of online learning and face-to-face interaction. This action aims to intensify human interaction and community belonging. Blended learning stimulates interaction, improves collaboration, and enhances social relationships among students and teachers.

METHOD

This paper is a literature review. The articles were obtained using the Science Direct and Google Scholar databases. The keywords were assessment, COVID-19, learning, online. After screening by title, abstract, and full text, there were 12 journals. From the selected journals, eight of them were associated with economics/accounting learning, two journals were about learning computers, one journal was about learning social study, and one journal was about exam-based android. Although the last four types of journals were not associated with accounting/economics learning, they were included in this paper because they were matched with the inclusion criteria. The inclusion criteria were online learning and assessment, the presence of a full-text journal, and related to economics or accounting learning. The exclusion criteria were abstracts only, no full text, more than ten years of the publication date, and only in the form of brief comments.

RESULT AND DISCUSSION

Performance-based assessment

Performance-based assessment is important to describe what is understood by the students and what they could do. Procedural knowledge and critical thinking are essential keys in theory application. The metacognitive ability is the ability to translate the knowledge that is obtained into action. This is an important ability for the students. By doing performance-based assessment, teachers and students can also recognize the ability, potency, and talents of the students. The ability, potency, and talents cannot be recognized based on the objective multiple questions test only. Performance-based assessment is an ideal tool to provide feedback for the teacher to improve the previous learning situation. This is critical for assessing the effectiveness of the learning atmosphere and teaching process (Anix & Fauziyah, 2018).

Performance-based assessment is good to be applied in all types of courses and learning subjects. The different talents of students can be assessed through Performance-based assessment. Students can do introspection and evaluation of the whole process of learning through performance-based assessment. The components of performance-based assessment are assignments and rubrics. The assignments consist of cognitive skills in solving problems, communication skills, and the ability to connect a concept with a real-world situation. The form of the tasks can be project, discussion, observation, simulation, problem-solving, or presentation. The tasks should be given in fair and clear instruction. The model of the tasks must be interesting. It must measure the students' ability based on their expected competence and achievement. Assignments are graded based on rubrics. The rating of a rubric is based on a suitable descriptor. Rubric analysis is done based on each descriptor criteria. The holistic rubric uses all criteria. The teacher only facilitates students in doing the tasks. Students are trained to do active and creative thinking (Anix & Fauziyah, 2018).

Assessment on accounting learning can be accomplished through attitudes performance. Self-assessment and peer-assessment are essential tools. The cognitive aspect can be tested by assignments. The psychomotor aspect is assessed by presentation projects, portfolio, and performance. The affective aspect is assessed through competence and social attitudes using observational techniques. Those techniques had been applied to accounting lessons in the High School of Surakarta. The results were satisfying (Suyatmini et al., 2019).

Soft skills are essential for communication skills. The ability to communicate can be assessed at the time of oral presentation. The ability to argue in a small group is as important as doing a good oral presentation. The presentation is also assessed by peers and teachers. In a study of 51 students in the Teaching Faculty of Universitas Swadaya Gunung Djati Cirebon, it was revealed that peer assessment is a tool for assessor training for other students who are not doing presentations at that moment. Meanwhile, the presenting students got feedback for their progress in the future (Segara & Hermansyah, 2019).

There are six components in accounting assessment components, namely (Sudiyanto et al., 2015):

- a. Structural task

Structural tasks mean structured problems, an example of examination, discussion, and the rubrics

- b. Goal
The goal means the goal/aim in learning, also the criteria and indicator for success
- c. Self-assessment
- d. Peer-assessment
- e. Observation
- f. Feedback

Of the six components above, the most important thing is the interaction of those components. This model is good in improving the competence of learning accounting (Sudiyanto et al., 2015).

There are some factors that affect the results of online assessment as following (Kaur et al., 2021):

- a. The ability of the student to learn new material.
This ability consists of working memory, reasoning skills, and performing skills
- b. The readiness and physical well-being of students
Those factors are affected by mood, sleep adequacy, and general health.

The selection of the assessment depends on the learning outcome. The combination of the tests can be given to determine the depth of the knowledge and skill levels. Quizzes and exams can be used for this purpose. Structured tasks and practice are essential in determining the skill level. Rubric is important for assessing feedback. Therefore, the type of assessment can be given alternately according to the objectives, complexity, and level of difficulty in learning material (Wei et al., 2021).

CONCLUSION

The usage of online assessment in learning during the COVID-19 pandemic can be in the model of Google form, Excel, presentation assessment, discussion, and peer assessment. A good assessment should be able to assess psychomotor, affective, social, skills, and soft skills. Assessment can be used as an introspection tool for teachers and lecturers in teaching and learning activities. The limitation of this paper is there are no studies that compare several methods of teaching at the same time in one class with the same groups of students. The implication of the paper is online assessment must be varied so it can assess many aspects of the learning process from cognitive, affective, psychomotor, social, and soft skills.

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