

Penggunaan Penilaian Kinerja untuk Mendukung Pembelajaran Daring di Perguruan Tinggi selama Pandemi Covid-19

Using Performance Assessments to Support Online Learning in Higher Education During the Covid-19 Pandemic

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Abstrak Pembelajaran daring di perguruan tinggi selama pandemi Covid-19 membutuhkan alternatif penilaian yang dapat mengukur keterampilan mahasiswa secara tepat. Mahasiswa cenderung dinilai hanya dengan menggunakan penilaian formatif dan sumatif. Penilaian dalam pembelajaran daring sebaiknya mempertimbangkan kinerja mahasiswa. Studi literatur dilakukan untuk mengumpulkan artikel yang relevan di jurnal dan buku untuk menjawab bagaimana penerapan penilaian kinerja mahasiswa dalam pembelajaran daring selama pandemi Covid-19. Hasil studi literatur menunjukkan bahwa penggunaan penilaian kinerja dapat menilai keterampilan mahasiswa dalam pembelajaran daring selama masa pandemi Covid-19. Penilaian kinerja diterapkan pada kegiatan presentasi lisan, kerja praktek, investigasi proyek, diskusi kelompok, dan portofolio dalam pembelajaran daring. Penilaian kinerja dapat mengukur pengetahuan, serta menggabungkan kemampuan berpikir tingkat tinggi, proses ilmiah, komunikasi, dan kolaborasi.

Kata Kunci Penilaian Kinerja, Pembelajaran Daring, Pandemi Covid-19

Abstract Online learning in higher education during the Covid-19 pandemic needs an alternative assessment that can measure students' skills appropriately. The students tend to be assessed only by using formative and summative assessments. Assessment in online learning should consider students' performances. Literature studies were conducted to collect relevant articles in journals and books to answer how to implement the performance assessment in online learning during the Covid-19 pandemic. The results showed that using the performance assessment can assess student skills in online learning during the Covid-19 pandemic. The performance assessment that is suitable to be implemented by using oral presentation, practical work, project investigation, group discussion, and portfolio in online learning. The performance assessment can measure content knowledge as well as incorporate higher-order thinking, scientific process, communication, and collaboration.

Keywords Performance Assessment, Online Learning, Covid-19 Pandemic

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1. Introduction

Covid-19 has been categorized as a global pandemic by the WHO. Many countries follow strict protocols such as lockdowns or social distancing regulations or chose herd immunity to prevent its spread. This situation forces all levels of educational institutions to operate remotely, including higher education institutions (Bozkurt & Sharma, 2020). The Covid-19 pandemic is making the transition from traditional face-to-face learning to

online learning. Online learning is a learning experience in a synchronous or asynchronous environment using devices accessed using the internet.

Online learning requires lecturers and students to count on a video conference system for synchronizing the teaching and learning process. Video conferencing can serve as a tool for effective synchronous communication and teaching. This tool allows for both students and lecturers to have real-time interactions visually and verbally, even though they are physically in different locations, preventing a lower level of engagements and interactions to occur due to asynchronous delayed feedbacks (Correia et al., 2020). Technical problems such as frequent interruptions, poor audio and video quality, signal constraint, and out-of-sync audio and video can interfere the learning process.

In asynchronous, lecturers share course content such as videos and documents with students through a learning management system. Students are responsible for their learning flexibly. Even though no real-time and face-to-face interaction can cause students to feel lonely and have problems with commitment to online classes resulting in less motivation in lessons (Öztürk, 2021). In online learning, the lecturer should engage students, hold their attention, provide feedback, and assess them in some ways to create the practical learning process and improve learning outcomes (Dhawan, 2020).

During online learning, the students were assessed by using formative and summative assessments, exams, quizzes, and assignments. These ways are beneficial to control students' academic dishonesty. The assessments need to be done simultaneously through both synchronous and asynchronous (Said, 2021). An alternative assessment approach free of cheating and plagiarism needs to be used with due regard to an unbiased and fair assessing system for the recurrence of such a pandemic in the future (Adedoyin & Soykan, 2020). Performance assessment provide fair and valuable in learning to students (Kelly et al., 2020). With this regard, the degree to which they perform according to standards can be assessed using the performance assessment (Knight, 2014).

Performance assessment aims to see the knowledge or skills of students that are applied in performance. This assessment allows students to construct initial responses rather than just knowing the correct answer. Performance assessment can measure cognitive thinking, reasoning skills, apply knowledge to solve realistic and meaningful problems (Darling-Hammond, 2017). The framework of performance assessment consist of four aspects are real-world situation, challenging task, portfolio document, and the scoring rubric comprises a set of scales (Braun et al., 2020). Performance appraisal rubric helps predict performance, so that can identify knowledge and evidence-based skills (Bastian et al., 2016). For example, performance assessment is suitable to measure oral communication skills in presentation and discussion. This is also possible to be implemented through video conferencing systems in online learning during Covid-19. Interaction plays a vital role in assessing student performance in online learning, so the lecturer has to explain the task and skills that are measured in performance assessment clearly (Danish et al., 2020). It is also crucial to ensure that the performance criteria are made clear and assist students with these things, allowing them to show what they have known.

Based on the problems described above, the literature review was employed to find out the way how to implement performance assessments in online learning in higher education during the Covid-19 pandemic. The review would like to analyze the performance assessment that can use to assess the student skills. The result of the study can be a reference for the lecturer to consider the use of performance assessment in online learning.

2. Method

The method used was the study of literature from relevant articles in journals and books. The literature review was used to get guidance in explaining related topics. The data obtained from literature reviews are analyzed through the qualitative description. This study aimed to systematically review by using the five stages model. The stages consisted of framing questions, identifying any relevant works (relevant publication), assessing the quality of studies, summarizing evidence, and interpreting findings (Khan, et al., 2003). The study was conducted through a systematic search in five scientific databases followed by critical analysis. The search detail was used in this research covering “Performance Assessment to Support Online Learning in Higher Learning Education During the Covid-19 Pandemic”, “Performance Assessment to Support Online Learning in Higher Education”, “Performance Assessment During Covid-19 Pandemic”, and “Online Learning in Higher Education During the Covid-19 Pandemic”. The databases used were in Table 1.

Tabel 1. List of Journal and Number of Articles

Journal	URL	Total Results	Primary Selection	Final Selection
IEEEExplore, Elsevier, Springer, WOC, Taylor & Francis	http://ieeexplore.ieee.org/Xplore/home.jsp http://www.sciencedirect.com/ https://link.springer.com/ http://www.wileyopenaccess.com/view/journals.html http://www.tandfonline.com/openaccess/openjournals	402	130	9

3. Results and Discussion

Result

The results of the review literature on several articles show how important performance assessments are even in the Covid-19 pandemic. The results of the review literature on performance assessments are shown in Table 2 below.

Tabel 2. Performance Assessment During the Pandemic-Covid 19

Title of Article	Author	Activity for Performance Assessment	Review Result
Assessing Distance Learning in Higher Education during the COVID-19 Pandemic	Elfirdoussi et al.	project investigation, oral presentation	The types of assessment in distance learning that used during Covid-19 in higher education are work to be done, quizzes, group projects, presentations, and oral tests. The performance assessment uses platforms such as Moodle, Microsoft teams, Zoom, Google Classroom, YouTube, or others in distance learning.

Characteristics and Effectiveness of Teacher Feedback on Online Business English Oral Presentations	Xu et al.	oral presentation	Teacher assess skills observed while the students give online presentation though synchronous during the Covid-19 pandemic. The feedback to the students' oral presentation focuses on technology use, timing, and teamwork. It has a positive effect to increase the oral presentation quality of students in online learning.
Science Practical Work in a Covid-19 World: Are Teacher Demonstrations, Videos and Textbooks Effective Replacements for Hands-on Practical Activities?	Moore et al.	practical work	The practical work during the Covid-19 pandemic can be conducted with the students observing demonstration video or simulation that include apparatus and procedure. It makes it easier to accommodate health protocol. The criteria when assessing students in practical work are the apparent introduction, identifying steps in the procedure, questions about the procedure and good practice, encouraging student observers to give a running commentary of the events, encouraging thinking and predicting, using the analysis part of the lesson to reflect on and review procedures through small group discussion about the experiment and results.
Experience of E-Learning and Online Assessment During the Covid-19 Pandemic at the College of Medicine, Qassim University	Elzainy et al.	group discussion	Lecturer as a facilitator and assess the students' skills in the discussion. Students can discuss in groups related to a particular topic using video conferences or chatting online.
Maximizing the Utility of Online Assessment Tools in the Pandemic Era- A narrative review.	Gurajala	practical work, group discussion, scientific paper	There are multiple online tools available to assess students learning. Online tools depend on the domain of learning and skills to be tested. Tools assessing psychomotor tools can use online meetings, posting the video, demonstration, practice, checklist manual, logbook, discussion forum, online quiz. Constructive feedback is provided to the students after the assessment. The lecturer assesses it and gives feedback focused on the process and result.
Online Teaching and Learning in Higher Education during the Coronavirus Pandemic: Students' Perspective	Coman et al.	group discussion, project investigation	Assessment of the activities of students in online learning can use Web-Base Training, E-learning System, and Learning Management System. This system allows student-lecturer collaboration and communication asynchronously. The student can send the video, audio, paper. Lecturers evaluate and give grades skills of students. The activities in online learning during pandemic use various

			techniques such as group discussion, project investigation, and practice.
The Covid-19 Pandemic as an Imperative to Advance Medical Student Assessment: 3 Areas for Change	Hauer et al.	portfolio	The portfolio was used to collect the assessment data to assure that outcomes have been fulfilled. It can provide multiple assess of the performance to make judgments about student achievement in online learning.
Evaluation of Online Education Delivered by the Universities During Pandemic Covid-19: A Case of North Cyprus	Senol et al.	oral presentation, project	The lecturer evaluated the online learning of the student using online quizzes, take-home home works, projects, student presentations, and essay writings.
Technology Enhanced Assessment (TEA) in Covid 19 Pandemic	Khan & Jawaid	portfolio	The portfolio can be used to measure skills through the online submission of recorded videos of the tasks performed by students. It is a collection of assignments done by students along with the reflection.

Discussion

Performance assessment measures a student’s performance in making a particular product or exhibiting information. Performance assessments examine the demonstrate specific skills. Performance assessment allows students to apply their knowledge to particular goals or problems, and correlate it with other content areas. A performance task can be a process that requires the action skill to get information, work with the information, judge the quality of the information, us the information for certain purposes, and use the information to create a presentation or product (Glencoe, 2004).

Performance assessment consists of direct assignments given to students and clear criteria for evaluating how well students achieve the application defined by target learning (Arhin, 2015), So, performance assessment consists of assignments and rubrics. Assignments must be fair, unbiased, able to measure student abilities, clear instructions, challenging, achievable, meaningful, and interesting for students, sufficient time, and in accordance with the competencies to be assessed. This assignment will be assessed by a rubric that has several criteria and indicators related to the standard of assessment (Wren, 2009). Rubrics will improve and monitor student performance, describe students' strengths and weaknesses, can accommodate classes that have heterogeneous students and make lecturer and students responsible and aware of learning objectives (Akerson et al, 2002). The performance assessment can assess skills of student in online learning during the Covid-19 pandemic are by using activity task such as oral presentation, practical work, project investigation, group discussion, and portfolio.

Oral Presentation

An oral presentation assesses the students' ability to communicate relevant information effectively, interestingly, and engagingly. An oral presentation serves as an assessment that allows students to verbally show their understanding and knowledge of a particular topic. It will enable the capture of the students' research as well as cognitive and transferable skills (Joughin, 2010). Some of the indicators to assess oral presentation are: accurate use of a concept; accurate supporting details to explain the concept; appropriate use of vocabulary regarding the content and audiences; appropriate use of visuals that support the presentation, such as figures, photographs, diagrams, flow charts, videos, and etc.; a clear introduction, a systematic body, and a clear conclusion; good qualities of vocal, including volume, speed, enthusiasm, and articulation; appropriate use of humor; neat and presentable attire; appropriate time given to the audiences to think (Glencoe, 2004).

Practical Work

Practical works are defined as a wide range of experience settings which allow students to access materials and equipment or secondary sources of data to be used to make observations and gain understanding of the natural world. Some other terms of practical works are scientific investigations and experimental works (Lee & Sulaiman, 2018). The purposes of practical works are the understanding of scientific concepts, problem-solving and scientific practical skills, motivation and interests, understanding of the nature of science, and scientific habits of mind (Hofstein & Lunetta, 2004). In addition, it is possible to perform practical works online using virtual laboratories, computer simulation, explanatory videos, as well as game-based activities because these platforms have been integrated to allow for virtual hands-on exercises and practical works (Estriegana et al, 2019). It is crucial to properly design virtual activities and practical works to provide efficient practical experiences to students. This way, it is possible for lecturers to make use of practical works to evaluate students' performance.

There are two distinct ways to assess practical works, namely a direct and indirect assessment of practical work skills. Using the first type of assessment, to determine students' competence level, students are assessed as they manipulate real objects. Meanwhile, determining students' competence level using the indirect assessment is to evaluate based on the practical work data and reports that students have completed (Zazekwa & Nkopodi, 2020). This then allows lectures to assess students' reports to know their practical skills even in the midst of the pandemic. In addition, there are some indicators to assess practical works based on reports, i.e., the title should clearly state the independent and dependent variables; the names of experimenters should be given; the project summary should include the statement of the problem, hypothesis, procedures, main results, and conclusions; the summary of the background of the problem should be given; relevant literature should be cited; the hypothesis should be clearly stated; the effects of the independent variable on the dependent variable should be predicted; the procedure to measure and control the variables through repeated trials should be easy to follow; the data should be properly recorded and organized; the analysis should be made

thoughtful and accurate; the hypothesis should be clearly evaluated; the extrapolations should be made and justified; correlation with other studies should be given; recommendations should be made for further study; students understand the science behind the study; language should be used properly and correctly; references should be written properly; the report should be neat and presentable (Glencoe, 2004).

Project Investigation

Project investigation is defined as a group or individual activity to come up with a solution or create a product regarding a problem. Such investigation should be completed in several days. This investigation solves a problem by using a concept, skills, and cognitive processes by designing a procedure, deciding on how to record, analyze and report data (Moeed, 2013). It is possible for students to explore the explanations, theories, or hypotheses using some models, including IT simulations and mathematical models. Pick a topic that students are interested in, perhaps based on one of the resource packs that know well or one of the topics still to come and encourage the whole class to think of questions around that topic. The indicator to assess skills in project investigation are a concise statement of the background for the problem is made clearly; the hypothesis and a prediction are stated clearly; the description of the procedure used is clear; data is presented by chart, table, or graph are done correctly; data analysis is summarized; the major findings are stated clearly; key points of interpretation are made; questions for further study are stated; bibliography page is provided in proper form; props add to the clarity and interest of the display; the display is informative and attractive; answers questions about the experimental design correctly; answer questions about the behind the project appropriately; and all guidelines for the exhibition are followed (Glencoe, 2004).

Group Discussion

Group discussion has a big impact on students' understanding (Fall et al., 2000). Group discussion should be focus on the specific assignment. The activities are appropriate for small group discussion are solving problems, applications related to other disciplines or the real world, analyzing data to support or refute theories, using models to learn concepts, discussing solutions to homework problems, planning group presentations. Group discussions have students engage in problem-solving activities. Different strategies can be discussed, solutions can be checked and compared with those of other groups, and group presentations of solutions can be given to the entire class. Alternative methods of solving a problem can be discussed, and models and diagrams can be used to demonstrate solutions. There are a number of indicators used to evaluate students' skills in group discussion, including students' preparedness for the group work, punctual and quality completion of all individual assignments within the group, students' active and constructive participation, students' roles as an active listener, appropriate and thoughtful positioning, students' ability to show disagreement properly, appropriate sharing of responsibility within the group according to directions, and appropriate promotion of positive human relations within the group (Glencoe, 2004).

Portfolio

A portfolio is a representative of student work collected over a period of time. Portfolios inform about student activities. Their focus is on understanding, problem-solving, written communication, and student views of themselves as learners. The student has to make an index and give the selection reason. Then the student should send a written reflection in the portfolio during the assessment period. The example topic for the portfolio is a written report, contribution of students in group work, problem-solving activity, homework, etc. The lecturer monitors the growth representative in the portfolio to assess critical thinking skills, problem-solving skills, communication skills, and scientific connections. The indicators used to assess the portfolio are the portfolio has a labeled clearly; contains a collection of assignments, an index, and self-reflective narrative in every category; and shows a mastery of concepts, skills, and work habits important in learning (Glencoe, 2004).

Performance Assessment during the Pandemic Covid-19

Performance assessment is developed based on learning objectives and learning activities carried out by students. In online learning, student activities are designed by the lecturer according to the learning objectives and use the appropriate platform to achieve the learning objectives. Therefore, the performance assessment carried out will depend on the type of activity carried out.

During the Covid-19 pandemic, students are asked to stay at home and to adhere to social distancing guidelines (Alsoufi et al, 2020). Using online learning during the pandemic can prevent the spread of this virus (Yulia, 2020). The steps for implementing the assessment are determining the skills to be measured, selecting activity task, determining criteria, creating rubrics, and assessing performance (Brualdi, 1998). Performance assessment during the Covid-19 pandemic can be conducted synchronously and asynchronously. Synchronous can be conducted via conference meeting using zoom, google meet, or webex. Asynchronous learning can be accomplished by using WhatsApp group, Moodle, e-learning system, and learning management system. The task of performance assessment has to comply with health protocols. The various activity such as oral presentation, practical work, project investigation, group discussion, and portfolio in online learning is possible to assess student skills in online learning during the Covid-19.

A performance assignment allows for students to know the real world of work in a specific discipline. Performance assessments depend on students' specific skills, including flexibility and creativity. The assessment should refer to the assessment standards. The lecturer uses a performance assessment to assess skills and competency, requiring students to show a certain competency using projects, practice tests, and portfolio assessments (Amini & Usmeldi, 2019). A performance assessment which provides reliable and valid measures of learning during and after students' completion of study and when they enter the job market is relevant for stakeholders. Once students complete their study, the assessment should provide evidence of students' competency in

the learning outcomes, comprising of skills, knowledge, and dispositions in life outside the study. In addition, a performance assessment can also be used instructionally to teach and help students develop the assessed skills and provide corrective feedbacks on the acquisition of skills (Shavelson et al., 2018).

Performance assessment, for example especially in science, should allow a lecturer to evaluate students' level of scientific reasoning; improve student skills in applying scientific reasoning and knowledge as well as in effectively communicating about science; identify student learning styles, individual strengths and weaknesses, which areas of instruction should be given more or less attention; promote self and peer evaluation, authentic learning, and independent learning (Glencoe, 2004). Students' skills can be assessed directly in video conferencing system when engaged in discussion or giving presentation.

On the other hand, by using a performance assessment, students have the chance to show what they have learned. This assessment focuses on students' performance and development. If students fail to perform a particular assignment at a given time, they still have the chance to show their ability at another occasion at a different time. This assessment is developed over time and in context, so the lecturer has an opportunity to evaluate students' weaknesses and strengths in different situations and areas (Dikli, 2003). Performance assessment helps the lecturer know real mastery of students, and improve teaching quality, assess the students objectively because based on students present. Performance assessment make students more self-confidence and enthusiastic, boredom reduction, and improve skills (Salma & Prastikawati, 2021).

In addition, a performance assessment emphasizes students' ability in applying their skills and knowledge in real life simulations. This assessment contains five main points, namely focusing on complex learning, involving problem-solving and higher-order thinking skills, stimulating various active responses, involving various challenging assignments that require multiple steps, and requiring students' commitment in the form of effort and time (Reeves, 2000). Performance assessment available to measure critical thinking (Braun et al., 2020). The performance assignments should be given more authentically with a variety of problem contexts to bring out student skills to be measured.

4. Conclusion

Based on the results of this study, performance assessment can be used to assess student skills in online learning during the Covid-19 pandemic. The performance assessment that is suitable to be implemented in online learning is by using oral presentation, practical work, project investigation, group discussion, and portfolio. The performance assessment can measure content knowledge as well as incorporate higher-order thinking, scientific process, communication, and collaboration. Therefore, performance assessment in online learning needs to be considered implement during the Covid-19 pandemic.

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