

THE PEDAGOGY IN ONLINE LEARNING: CHALLENGES AND OPPORTUNITIES

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Abstract: The rapid spread of the COVID-19 pandemic has created a disruption in Indonesia's education sector as teachers and students are unable to continue their teaching and learning activity in schools and/or universities. Consequently, this has forced governments to close schools and/or universities, and switch traditional learning to online learning. Therefore, this article aims to review the pedagogy in online learning. It focuses on the theoretical and practical concept of online learning in terms of technology integration, classroom interaction, and online assessment. During the implementation of online learning, there are numerous reported impacts, both opportunities and challenges, faced by teachers. First, online learning allows teachers to be flexible in integrating the technology tools and the internet in seek of knowledge and transfer it to others. Unfortunately, lack of knowledge and training of technology integration somehow is likely to face technical problem in use. Second, online learning promotes good and effective classroom interaction if some factors, such as instruction, learners, and physical factors are settled. Last, online learning facilitates teachers to conduct online assessments which are effective and efficient to be tested. Inopportunately, multiple challenges will be faced by them, such as validity and reliability of the test, and students' academic integrity.

Keywords: *covid-19 pandemic, online learning, technology integration, classroom interaction, online assessment*

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INTRODUCTION/PENDAHULUAN (TIMES NEW ROMAN, 12)

The rapid spread of the COVID-19 pandemic has created a disruption in Indonesia's education sector as both teachers and students are unable to continue their teaching and learning activity in schools and/or universities. Consequently, this has forced governments to close schools and/or universities, and cease traditional learning and switch to online learning. According to Fry (2001), online learning is the use of internet and some other important technologies to develop materials for educational purposes, instructional delivery and management of program. Additionally, Basilaia & Kvavadze (2020) argue that online learning is the experience of knowledge transfer using video, audio, images, text communication, and software supported by internet networks. Thus, by implementing online learning, students can still learn and access the materials every time and everywhere. Moreover, there are many tools can be used either for online teaching or online learning, such as e-mail, Whatsapp, Instagram,

Google Classroom, Google Meet, Zoom Meetings, Youtube, and others. As a matter of fact, there have been many questions about the implementation of online learning during COVID-19 pandemic disruption in Indonesia. Many studies found that the transition of traditional learning to online learning can be challenging as well as worthwhile. Therefore, this article focuses on the theoretical and practical concept of online learning in terms of its challenges and opportunities.

THE PEDAGOGY IN ONLINE LEARNING

Technology Integration in Online Learning

As in many countries worldwide, as an effect of the COVID-19 pandemic lockdown schools closed in March 2020. Teachers should confront with the need to adapt to online teaching and learning process. According to Konig, Biela, Glutsch, (2020) teachers should to change to online teaching, requiring them to use any kinds digital tools and resources to solve problems and implement new approaches to teaching and learning in online class. Information and communication technologies (ICT) tools, digital teacher competence and teacher education opportunities to learn digital competence, are instrumental in adapting to online teaching during COVID-19 school closures.

In online teaching and learning, lecturers should think the effective method to teach. Ahmadi (2018) explains that the important aspects in teaching and learning process is the method that lecturers used to facilitate students in class. To facilitate instructor in English online teaching and learning process is technology. In addition, technology integration means how teacher used technology to make the activity in classroom more effective (Hennessy, Ruthven, Brindley, 2005 and Pourhosein Gilakjani, 2017). Technology integration increases the education environment (Dockstader, 2008). And technology provides unlimited resources for language teaching and learning process (Bull and Ma, 2001). So that, through using technology, students can access many information that they cannot find in lecturer (Purhosein Gilakjani, 2017). Furthermore, technology used to help and increase the language teaching and learning process and it could help both lecturers and students to facilitate in language learning.

Although the technology could facilitate in online teaching and learning, the readiness of using it should to prepare. Integrating technology into online teaching and learning is being a complex process which requires the readiness of lecturer and students (Summak, Baglibel and Samancioglu, 2010). In addition, according to Parasuraman (2000), technology readiness index emphasized that there are two dimensions of technology that impacts for individual such as contributors (optimism and innovativeness) and inhibitors (discomfort and insecurity) of technology adoption. The contributors are first optimism makes the individual believe that from technology they have benefit and many information for them, meanwhile second contribution is innovativeness makes individual have new experience and knowledge from technology. However, the inhibitors are first discomfort is individual feeling that could not control so that make they are not confident to make technology work and second inhibitors is insecurity makes individual need assurance for technology will operate accurately so that produce product, service or process reliably. Furthermore, Junus et al (2021) in their studies found that most of lecturers have readiness in integrating technology during online learning. In short, readiness becomes one of the important aspects on the implementation of technology in the classroom.

Due to unfamiliar of using technology, lecturers and students have difficulties while using it. Schoepp (2005) states that the difficulties of the integrating technology into teaching and learning process known as “barriers”. A barrier means as “the situation that makes it difficult to make process or to achieve something. Mailizar, Almanthari, Maulina, and Bruce (2020) explain that barrier defined as a challenge or an obstacle that provides access and any condition or situation that makes it difficult to make progress or to achieve an objective. Additionally, Ertmer (1999) has classification of technology integration’s barrier into two categories which are extrinsic and intrinsic. Extrinsic barriers in Ertmer (1999) study known as first order and cited access, time, support, resources and training. However, intrinsic barrier classified as second order and cited attitude, trust, exercise and resistance. Extrinsic barriers related to the organizations or group rather than individual, meanwhile, intrinsic barrier related to the teachers and administrators (Al- Alwani, 2005). In short, lecturers faced the barriers of technology integration in classroom.

There are some barriers of technology integration faced by lecturers during online teaching and learning process. Junus et al (2021) those barriers which faced by the lecturers are the internet connection, course delivery and teaching strategies, evaluation, time constraints, monitoring, and motivating students. But, in Bingimlas (2009) study, there are three barriers that faced by the lecturers such as lack of access, resistance to change lack of time, lack of training and lack of technical support. In line with Kurniawan (2014), those barriers in technology integration face by lecturers are lack of teacher confidence, lack of teacher competence and resistance to change and negative attitudes. And there are similar findings in Joseph (2012) study that there are seven barriers affected the integration of technology into lessons are lack of confidence among teachers during integration, lack of access resources, lack of time for the integration, lack of effective training facing technical problems in use, lack of personal access during lesson preparation, age of the teachers, and teaching experience. But the most important is lecturers need guidance and counseling in applying the technology to transfer the knowledge in the classroom (Efrilia, 2021). So that, when technology is used appropriately, it can bring about a lot of advantages to teachers and learners (Ahmadi, 2018). In short, to detract barriers in online teaching and learning, institution should provide the training to the lecturers in order to avoid the barriers in integrating the technology.

Classroom Interaction in Online Learning

When covid 19 pandemic affects education in order to makes teaching and learning activities conducting by online learning. Interaction plays a significant role to foster usability and quality in effective online activities. It will help online teaching and learning process run smoothly, and the good interaction in online teaching and learning process can make both students and teachers reach the target and improve teaching and learning process. Therefore, in online courses, Interaction is a key component of fostering learning. How the interaction and communication during online learning by students and teachers, students and students each other, also the content of the material. Sulistyani and Riwayatningsih (2020) mentions that classroom interaction and classroom activities will be a productive class when the teacher interacts with the whole class, the teacher interacts with a group, a pair or an individual student, students interact with each other: in groups, in pairs, as individuals or as a class, students work

with materials or aids and attempt the task once again individually, in groups and so on.

In terms of the interaction pattern in online classroom activities, Classroom interaction is proposed by Moore (1989). He distinguishes the interaction activities in classroom such student-student interaction, student-teacher interaction, and student-content interaction. Also, some other studies (e.g., Abrami et al, 2011; and Achor, Danjuma, and Orji 2019) investigate the classroom interaction activities into three as student-student interaction, student-content interaction and student-teacher interaction. Student-student interaction refers to interaction among individual students or among students working in small groups. Student-student interaction could be synchronous, as in video conferencing and chatting. In asynchronous, as in discussion boards or e-mail messaging.

Student-teacher interaction focuses on dialogue between students and the instructor. During student-instructor interaction, the instructor stimulates and maintains the student's interest in what is to be taught, to motivate the student to learn, to enhance and maintain the learner's interest, including self-direction and self-motivation. Student-instructor interaction may be synchronous such as through the telephone, video conferencing and chats, or asynchronous such as through correspondence, e-mail and discussion boards. Student content interaction refers to students interacting with the subject matter under study to construct meaning, relate it to personal knowledge, and apply it to problem solving. Student-content interaction is the process of intellectually interacting with the content that results in changes in the learner's understanding, the learner's perspective, or the cognitive structures of the learner's mind". Student-content interaction may include reading informational texts for meaning, using study guides, watching instructional videos, interacting with multimedia, participating in simulations, or using cognitive support software (e.g., statistical software), as well as searching for information, completing assignments and working on projects (Alhih, Ossiannilsson, and Berigel, 2013).

Additionally, in order to make the good online and teaching interaction, Sutton (2001) states that teachers should focus on three things when they interact in online class. Firstly, they must pay attention to the kind of the language the students are able to understand, i.e. teachers should provide an output that is comprehensible for the level of all the students. Secondly, the teachers must think about what they will say to their students, hence the teacher speech is as a resource for learners. And the last, teachers also have to identify the ways in which they will speak such as the voice, tone and intonation. Also, in making the good interaction Alahmadi & Alraddadi (2020) claim that teacher's role does not solely consist of presenting the material, but also of introducing students to creative new learning methods. When teacher acts as a creative guide, it will enhance the students' experiences through constructive feedback.

However, the emergency online teaching and learning process caused by the pandemic covid 19 making the instructors face difficulties such as student procrastination, lack of technical expertise, and lack of additional time required to design online courses (Alahmadi and Alraddadi 2020; and Salmi 2013). The challenges to online interaction education are including potentially reduced quality of education, increased the faculty training costs about the implementation and interaction activities during online learning, lack of appropriateness for all subjects/course content, increased cost of technological update, potentially reduced student/professor interactions (Hrastinski, 2008). Additionally, classroom interaction activities during

online learning make many learners are be more passive, lack to participate, contribute, and communicate in writing. Some students may also attribute their participation and interactions to Internet-related barriers such as inadequate hardware and software, slow connections, and lack of training and orientation support (Nkonge and Gueldenzoph, 2006).

Assessments in Online Learning

Another critical issue that regularly emerges during the implementation of online learning is related to the assessment from traditional assessment into online assessment. Hricko & Howell (2006) define online assessment as the use of scientifically based tools to test or measure learning, which occurs exclusively within the online environment. The emphasis here is on the online context of learning through interactions across and between learners and instructors, which are mediated by Internet-based technology, including e-mail, computer software, or conferencing systems and Web-based applications. Additionally, Crisp (2011) argues that online assessment means the use of digital devices to assist in the construction, delivery, storage or reporting of student assessment tasks, responses, grades or feedback in online. Besides, online assessment can use a multitude of formats, including text documents or portable document formats, multimedia formats such as sound, video or images. It can also be undertaken by students in groups or individually and it can occur with large numbers of students in a synchronous or asynchronous manner. Finally, Weleschuk, Dyjur, and Kelly (2019) conclude that online assessments are considered to be any means of evaluating student achievement, providing feedback, or moving the students forward in their learning process in fully online credit courses. These assessments can be completely online (such as online exams) or just require online submission (such as essays).

In earlier times, the operation of online assessment confirmed a variety of potential opportunities. Primarily, Crisp (2011) outlines copious potential opportunities of online assessment for lecturers and students as follow: (1) efficiency, since online assessment is timeless, flexible delivery, automatic processing responses, and effective storage results and grades; (2) effectiveness, since online assessment provides immediate feedback, analysis of question validity, and new question types; (3) authenticity, since online assessment accesses to people and resources, can be designed to stimulate real world, and can set complex tasks; and (4) engagement, since online assessment has multimodal formats, can use virtual worlds, and can use self and peer review. Additionally, Ragupathi (2020) proves that there are four top benefits of online assessment as follow: (1) detailed feedback in a variety of formats; (2) instant feedback; (3) accessibility; and (4) flexibility. He further explains that one of the most highly reported benefits of online assessment is the ease associated with providing detailed feedback to students. The instructor can provide students with timely and clear feedback by using different formats in an online environment, such as written, audio-recorded, or video-recorded. Moreover, students and instructors also appreciate the accessibility of online assessments. Students have more flexibility in how they can approach their coursework, as they can choose when and where they do it, rather than having to fit within the constraints of a classroom. For example, instead of having to be present in class for a group discussion or quiz, students can add to an asynchronous discussion board or complete an online quiz at the times and locations that are most

convenient to them. This can take immense pressure off students who have jobs, family commitments, or other factors that may restrict their ability to be present on campus.

Moreover, Bahar & Asil (2018) also mention five advantages of online assessment as follow: (1) be administered on demand; (2) provide room for interactive test because in virtual world; (3) encompass big number of students at the same time; (4) increase efficiency and decrease cost; and (5) flexibility and give an instant feedback. Those benefits are also in line with Seifert and Feliks (2018), they also believe that online assessment saves paper and time invested in printing assignments. It is available in anywhere, anytime, on any device, excellent immediate feedback, automated grading, and reporting are some benefits of it.

As a final point, Khairil & Mokshein (2018) summarize several advantages of online assessment as follows: (1) auto marking, by using online assessment platform the educator could create their own assessment or using available online one for free; (2) quality feedback and fun discussion, from online assessment the educator and the students could give a very quality and longer feedback towards their performance in answer the question; (3) reliable and valid measurement, the question and marking in online assessment is reliable and valid especially when it applies Computer Based Test; (4) economic and ecological, the using of online assessment could paperless as an environmental friendly and cost effective; (5) practical, online assessment can be done anytime, anywhere depends on the educators; and (6) motivation, assessment via online is more unique, fun and absolutely meets the demands with what needed in 21st century.

Regardless of the potential opportunities of online assessment above, several articles have also reported considerable challenges. According to Kumar and Sajja SN (2020) during online course, assessment has faced multiple challenges: (1) many teachers are not comfortable utilizing the current technologies, which calls for a fast-tracked faculty development program regarding online assessment; (2) the rigour, validity and reliability of online assessments are often viewed with scepticism owing in part to a lack of a setting standards; and (3) students' academic integrity while attending online examinations is highly variable and this can compromise the fairness and authenticity of assessment. Additionally, Alruwais et al. (2018) add that conducting the online assessment in educational world will exactly face some challenges when implementing it. Here are some challenges toward the use of online assessment in classrooms: (1) students who are not experienced with computers or online assessment process; (2) computer and internet accessibility; (3) to assess group projects is a difficult job; and (4) some teachers are not familiar with the use of online assessment. Furthermore, online assessment is time-consuming in terms of preparing tests, requires technology investment including hardware and software, and lacks control of testing environment as well as disconnects while taking a test (Born, as cited in Rastgoo and Namvar, 2010). Moreover, with the event of online assessments, students would feel a growing disconnect between instructors and them because the instructors are no longer grading their evaluations, therefore feedback is also missing (Khan and Khan, 2019). Besides, some studies (e.g., Holden et al., 2021; Guangul et al., 2020; Adzima, 2020; Mellar et al., 2018; and Yilmaz, 2017) found that online assessment presents a new challenge for lecturers when it comes to maintaining academic integrity. This means that students would copy and paste things they find on internet or copy one another's assignment in assignment and project studies, and take the tests together in pairs or groups.

Another study from Indonesia, Yulianto & Mujtahin (2021) revealed the teachers' negative perception about online assessment during the Covid-19 pandemic. During conducting the assessment test, teachers had some obstacles such as (1) the internet connection; (2) the validity of the assessment; (3) and the low of students' enthusiasm. The limitation of internet connection especially in a remote area makes online assessment activities less effective. Moreover, online assessment also consumes a lot of internet data. Additionally, the students are less enthusiastic about doing online assessments because of their lack of internet connection.

CONCLUSION AND RECOMMENDATION

The readiness in integrating technology, teachers need intensive training in the use of information technology (IT) in order to be ready to facilitate its integration into classroom activities in ways that enhance thinking and creativity, and they also need to learn how to facilitate and encourage students to take charge of their own learning, meanwhile the barriers for technology integrated includes lack of confidence, lack of time for the integration, and lack of effective training facing technical problem in use, lack of resources, inadequate knowledge and skills, institutional barriers, assessment and subject culture can all serve as significant barriers to implementing a well-integrated technology program. For that reason, to minimize the barriers in implementing technology for online teaching and learning process, teachers and students need the solution to faced it. There are some solutions that can be applied such as teachers and students need guidance and counseling in applying the technology. Teachers should prepare the learning materials as interesting as possible with simpler operations of platforms and they should also proactively to contact students who are less active in participating in online learning.

Additionally, interaction is also a key component of fostering learning in online courses, since there is an issue of how the interaction and communication between teacher and students, students and students, and also the content of the material, during online learning. Classroom interaction and classroom activities will be a productive class when the teacher interacts with the whole class, the teacher interacts with a group, a pair or an individual student, students interact with each other: in groups, in pairs, as individuals or as a class, students work with materials or aids and attempt the task once again individually, in groups and so on. However, classroom interaction activities during online learning make many learners are be more passive, lack to participate, contribute, and communicate in writing. Some students may also attribute their participation and interactions to Internet-related barriers such as inadequate hardware and software, slow connections, and lack of training and orientation support. Moreover, in order to make the good online and teaching interaction, teachers should focus on three things when they interact in online class such as paying attention to the kind of the language the students are able to understand, thinking about what they will say to their students, and identify the ways in which they will speak such as the voice, tone and intonation. Further, teacher's role does not solely consist of presenting the material, but also of introducing students to creative new learning methods. When teacher acts as a creative guide, it will enhance the students' experiences through constructive feedback.

Finally, in order to deal with the challenges of online assessment, all educators are suggested to broaden their knowledge of online assessment. The knowledge of online assessment is called online assessment literacy. It will play a significant role in

teachers' assessment practices and make teachers easily to carry out their online assessments. Therefore, teachers also should be given more training on online assessment to maximize their performance of assessing their students so that they can reach their full potential in language learning. Additionally, there are numerous assessment methods that can be used and hopefully can be particularly effective in the online environment. These included projects, e-portfolios, self-assessments, peer evaluations with feedback, timed tests and quizzes, and synchronous test. Furthermore, the most common online tests used by most educators to assess students in online learning, for either formative or summative assessment as follow: (1) Multiple-choice tests because they are easy to administer and are instantly marked by the software, and have objective scoring. (2) True-or-false items because its ease of marking and it is an efficient way to digitally collect additional information. (3) Essays are flexible and can assess higher-order learning skills. And (4) Short-answer tests offer lecturers to score the students' answers immediately by comparing the student response to a pre-populated answer. Last but not least, since plagiarism is also considered as the major issue in online assessment; therefore, in order to maintain students' academic integrity and avoid plagiarism, educators are recommended to use applicable plagiarism checker such as Turnitin, Grammarly, and other free online plagiarism software.

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