Challenges and Opportunities of Online Assessment Implementation During Covid-19 Pandemic in Indonesia Based on Recent Studies

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ABSTRACT

Online learning has become a new trend in Indonesian educational practices due to the Covid-19 pandemic. Since the teaching and learning process changes from face-to-face to online, conducting online assessments has become a requirement. The shift brings some challenges and opportunities. This study attempts to describe the challenges and opportunities of implementing online assessment during the Covid-19 pandemic in Indonesia. A library research method was implied by analyzing related research articles conducted between 2020-2022. The research procedures adapt George’s (2008) library research model. The findings reveal three challenges related to internet connectivity and the consequence of indirect interactions between the students and instructors. The first challenge is that online assessment is costly. Both teachers and students are required to pay the costs of internet access, own a digital device, and possess digital literacy. The second challenge is the possible problem of cheating and plagiarism. The next challenge is difficulty to follow students’ progress, interact effectively with them, and handle-less motivated and discouraged students. However, there are some opportunities as far as online assessment is concerned. There is more flexibility with time and space, direct and immediate feedback to students, strategies to deal with students’ anxiety, encouraging autonomous learning, increasing knowledge and experiences in online language assessment, and time management skill.

Keywords: challenges, Covid-19, Online assessment, opportunities.

I. INTRODUCTION

During the pandemic of Covid-19, online learning has become a trend in the Indonesian educational field. Since the government started Work from Home (WFH) and Learn from Home (LFH) regulations, every aspect, including the educational element, was changed from face to face into a fully web-based activity. This educational system is familiarly called online learning or distance learning. Online learning refers to using ICT or Information and Communication Technology in teaching and learning (Amos et al., 2015; Bakia et al., 2012; Madya & Abdurahman, 2021). As online learning is a new environment for most teachers, they are forced to use internet-based technological applications to teach. The students also have no choice but learn remotely by using some applications, like Moodle, Zoom, Google Meet, Google Classroom, and many other online learning platforms (Ali & Maksum, 2020; Zhboun & Farrah, 2021).

Since the conventional teaching and learning process changed into online learning due to the Covid-19 pandemic, online assessments have become a requirement (Fitriyah & Jannah, 2021; Pokhrel & Chhetri, 2021; Rapanta et al., 2020). The assessment process cannot be carried out directly in the classroom. One of the efforts is to prepare online-based assessments (Divayana et al., 2021; Rapanta et al., 2020). Online assessment refers to evaluating students’ learning through distance assessment practices or remote assessment methods (Sewell et al., 2010 in Widianti et al., 2021). Some teachers said that implementing the online assessment is hard since several problems arise during its implementation, but some of them also cannot deny that the online assessment is beneficial for delivering learning materials and giving tasks to students (Yulianto & Mujtahid, 2021). It is also easy to be accessed and reviewed for exams (Alrnuais et al., 2018; Appiah & Tonder, 2018; Zboun & Farrah, 2021). Meanwhile, it is not as simple as expected since the transformation from face-to-face to online learning requires the improvement of educators’ abilities in their calling through web-based
learning (Mallillin et al., 2020). Concerning this, the transformation from a face-to-face assessment into a fully online assessment brings challenges and opportunities. Some recent studies in various countries showed how online assessments become an opportunity or a challenge. A survey by Adedoyin and Soykan (2020) in Cyprus presented the challenges and opportunities of online assessments. The challenges are limited access to updated devices because of low socio-economic power, human and pet intrusion, and lack of digital skills. It was also found some opportunities of the online assessment, namely innovation in a research and technology field and also the socio-economic interventions through social support for students. Fuller et al. (2020) conducted a study in the U.K. to seek the opportunities and challenges in online assessment. Key difficulties include cheating, technology, and adapting to a new assessment tool and online environment. Moreover, it also argued that online assessment gives the opportunity to develop the assessment itself by focusing on a compassionate collegiate model of practice. In line with this, Guangul et al. (2020), in their study, examined the challenges of online assessment in higher education in the Middle East. It was found that the challenges of online assessment, in general, were academic dishonesty, coverage of learning outcomes, infrastructure, and commitment of students to submit their assessments. Another study by Joshi et al. (2020), in higher education in India found that online assessment is quite challenging for higher education students. The challenges revealed in the study were external distraction, institutional support barriers, limited awareness, lack of technical infrastructures, and lack of student motivation. Within those conditions, students are taught how to learn, provided a flexible way to learn the key concepts and related vocabulary, and also provided various ways to present their understanding (Basham et al., 2020).

Based on these phenomena, the present study seeks the challenges and opportunities of the implementation of online assessment based on recent studies that were conducted in Indonesian schools during the Covid-19 pandemic. The research questions were constructed as follows.

1) What are the challenges of online assessment implementation during the Covid-19 pandemic in Indonesia?
2) What are the opportunities for online assessment implementation during the Covid-19 pandemic in Indonesia?

II. METHODS

This study was conducted as library research that focused on the challenges and opportunities of online assessment implementation in Indonesia. The data were collected from research articles published in either international or national accredited journals during the period 2020–2022. As stated by George (2008), library research is a kind of research that collects data by learning and understanding data having a close relationship with the problem from theories, books, documents, etc.

There were some procedures followed in conducting this library research according to George's (2008) model. The first procedure was identifying the topic of the research, namely the challenges and opportunities of online assessment implementation. The second procedure was formulating the research questions, namely 1) What are the challenges of online assessment implementation during the Covid-19 pandemic in Indonesia? And 2) What are the opportunities for online assessment implementation during the Covid-19 pandemic in Indonesia? The third procedure was deciding on the research plan, which included skimming and browsing relevant information under the research topic by reading articles, books, websites, previous studies, etc. The fourth procedure was selecting the databases for searching for resources. The researchers used several databases to determine the research resources, namely Google Scholar, SINTA (Science and Technology Index), ERIC (Education Resources Information Center), and Publish and Perish. The fifth procedure was determining the criteria of the research articles that were used as resources. The research articles used were those which were published in reputable international journals indexed by Scopus Quartile 1, 2, and 3 and Indonesian national accredited journals indexed by SINTA, including SINTA 1, SINTA 2, SINTA 3, and SINTA 4 published between 2020 to 2022. The resources were retrieved by entering some keywords, such as “challenges of online assessment implementation in Indonesia,” “challenges of implementing assessment during the pandemic in Indonesia,” “educational challenges during Covid-19 pandemic in Indonesia,” and “opportunities of online assessment implementation in Indonesia.” “opportunities of implementing assessment during the pandemic in Indonesia,” “educational opportunities during Covid-19 pandemic in Indonesia.” From this process, 20 research articles were selected as resources in this study, including five research articles published in reputable international journals (RIJ) and fifteen research articles published in national reputable journals (NRJ), as displayed below in Table I.

| No. | Resources | Journal types/Rank |
|-----|-----------|--------------------|
| 1.  | Rachmawati et al. (2022) | RIJ/Q1 |
| 2.  | Divayana et al. (2021) | RIJ/Q2 |
| 3.  | Ningsih et al. (2021) | RIJ/Q2 |
| 4.  | Syafrazal and Pahamah (2020) | RIJ/Q2 |
| 5.  | Nurkanto et al. (2022) | RIJ/Q3 |
| 6.  | Kusuma et al. (2021) | NRJ/S1 |
| 7.  | Saputra et al. (2022) | NRJ/S2 |
| 8.  | Anfudin et al. (2021) | NRJ/S2 |
| 9.  | Widastuti et al. (2021) | NRJ/S2 |
| 10. | Luthfiyah et al. (2021) | NRJ/S2 |
| 11. | Fitriyah and Jannah (2021) | NRJ/S2 |
| 12. | Fathurochman (2021) | NRJ/S2 |
| 13. | Fauzani et al. (2021) | NRJ/S2 |
| 14. | Zboun and Farrah (2021) | NRJ/S3 |
| 15. | Fitriandy et al. (2020) | NRJ/S3 |
| 16. | Aria et al. (2020) | NRJ/S3 |
| 17. | Ukhrwyniyah et al. (2021) | NRJ/S4 |
| 18. | Dwiyanti and Suwastini (2021) | NRJ/S4 |
| 19. | Wibowo and Novitasari (2021) | NRJ/S4 |
| 20. | Yulianto and Murjiahid (2021) | NRJ/S4 |

Note: RIJ=Reputable International Journal, NRJ=National Reputable Journal. Q1/S1 =Top Rank

The sixth procedure was reading the resources closely. The researchers focused on the challenges and opportunities of online assessment implementation during the pandemic in Indonesia. A challenge is defined as a task that requires effort, and it is difficult to deal with in order to be done successfully (Malone, 1981 in Çalışkoğlu, 2019). In this study, the data of challenges refer to difficult things that happen, for both
students and teachers, in the online assessment implementation, which requires some effort to deal with. Meanwhile, an opportunity is defined as an excellent chance to do an action that offers some kinds of advantages (Hulbert et al., 1997). In this study, the data of opportunities refer to a good chance that can be taken from the online assessment implementation, which offers some advantages for students and teachers. The seventh procedure was gaining insights from the resources by reading critically. The challenges and opportunities were then mapped, categorized, and synthesized. The eighth procedure was elaborating the insights into arguments to create comprehensive opinions to answer the research questions. The last procedure was writing the article draft of the report, which includes the supporting theories and arguments based on syntheses in the findings.

III. FINDINGS AND DISCUSSION

Based on the analysis and synthesis of the twenty pieces of literature related to the implementation of the online assessment, the following findings are presented.

Fig. 1. Challenges of Online Assessment Implementation in Indonesia.
Description:
A = Internet cost and connection.
B = Limited access to digital devices.
C = Lack of digital literacy.
D = Originality of students’ work.
E = Difficulty in following students’ progress.
F = Ineffective interaction between students and teacher.
G = Less motivated and discouraged students.

Fig. 1 shows the challenges of online assessment implementation during the pandemic in Indonesia. From the total twenty articles reviewed, seven challenges were identified, namely internet cost and connection, limited access to digital devices, lack of digital literacy, Originality of students’ work, Difficulty in following students’ progress, weak interaction between students and teacher, and less motivated and discouraged students. Eight research articles (16.7%) found the challenge in the internet cost and connection. Three research articles (6.2%) found the challenge in the limited access to digital devices. Eleven research articles (22.9%) found the challenge related to the lack of digital literacy. Four research articles (8.3%) found the challenge in the Originality of students’ work. Five research articles (10.4%) found the challenge the Difficulty of following students’ progress. Eight research articles (16.7%) found the challenge of ineffective interaction between students and teachers. Nine research articles (18.8%) found the challenge of less motivated and discouraged students. Each challenge can be elaborated and discussed as follows.

First, one of the challenges found is the lack of digital literacy (Arrieta et al., 2020; Fauzani et al., 2021; Fathurrochman, 2021; Fauzani et al., 2021; Kusuma et al., 2021; Luthfiyyah et al., 2021; Ningsih et al., 2021; Nurkamto et al., 2022; Saputra et al., 2022; Syafirizal & Pahamzah, 2020; Ukhowiyiah et al., 2021; Widiastuti et al., 2021). This challenge (22.9%) became the most common challenge of online assessment implementation in Indonesia. Here, students with poor ICT skills are disadvantaged in online assessment (Arrieta et al., 2020). Some students lack the understanding to use various applications and platforms (Fauzani et al., 2021), or they also feel the challenges of filtering the digital information or confirming whether or not it is suitable or correct (Kusuma et al., 2021). This challenge occurs not only for students but also for teachers. (Fathurrochman, 2021; Luthfiyyah et al., 2021; Ningsih et al., 2021; Nurkamto et al., 2022; Saputra et al., 2022; Ukhowiyiah et al., 2021; Widiastuti et al., 2021). Some teachers find it more challenging to respond to students’ assignments on online teaching platforms (Saputra et al., 2022). They may still use them to transform offline to online teaching environments (Nurkamto et al., 2022). This finding is relevant to Ja’aashan (2020), who found that the technical challenge regarding e-learning was the main challenge at the University of Bisha, Saudi Arabia, for both teachers and students. It involved students’ inability to access PDF, course notes, PowerPoint, online feedback, etc., and teachers’ less than enough training and experience dealing with digital content.

Additionally, the challenge also came from the less motivated and discouraged students (Arrieta et al., 2020; Fauzani et al., 2021; Firriyah & Jannah, 2021; Kusuma et al., 2021; Nurkamto et al., 2022; Rachmwati et al., 2022; Wibowo & Novitasari, 2021; Yulianto & Mujtahid, 2021; Zboun & Farrah, 2021). Many students feel less motivated in an online class because they are bored of virtual interaction (Zboun & Farrah, 2021). They prefer to see their fellows and teachers physically in the classroom to be able to participate more. Subsequently, these less motivated students were often late in submitting the assignments or did not collect the tasks until the due date expired (Yulianto & Mujtahid, 2021). This is in line with the study by Meşe and Sevilen (2021) regarding their results of interviews and creative writing tasks of students in a private university in Turkey. In their study, most students believe that online education brings a negative impact on their motivation because of the lack of social interaction.

Moreover, another challenge found was the internet cost and connection (Arrieta et al., 2020; Kusuma et al., 2021; Nurkamto et al., 2022; Ukhowiyiah et al., 2021; Wibowo & Novitasari, 2021; Widiastuti et al., 2021; Yulianto & Mujtahid, 2021; Zboun & Farrah, 2021). The internet connection problem has still become a hot issue in conducting online learning (Nurkamto et al., 2022; Ukhowiyiah et al., 2021; Yulianto & Mujtahid, 2021). Not all students have Wi-Fi in their houses, particularly in remote or rural areas. Additionally, the speed of internet connection is not always at their home. As a result, some students are less enthusiastic about doing online tasks due to the lack of internet

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connection. Moreover, both students and teachers consume lots of internet data (Wibowo & Novitasari, 2021). Students sometimes complain about online assessments that need a lot of internet data. Some teachers also said about its costs and preferred conventional assessments to online assessments. Clarin and Baluyos (2022), in their study, also found the same challenge encountered by both students and teachers related to the poor internet connection as the main challenge to conducting online classes in the Basic Education department in Misamis University. They assumed that the internet provides the link for virtual classes.

The next challenge was the ineffective interaction between students and teachers (Divayana et al., 2021; Fitriyah & Jannah, 2021; Rachmawati et al., 2022; Sujana et al., 2020; Ukhwriyiah et al., 2021; Wibowo & Novitasari, 2021; Widiastuti et al., 2021; Zboun & Farrah, 2021). One of the main differences between conventional and online learning can be recognized in the interaction between students and teachers (Widiastuti et al., 2021). The online assessment seems to result in lower engagement and interaction due to no direct interaction (Fitriyah & Jannah, 2021; Nurkamto et al., 2022; Wibowo & Novitasari, 2021; Widiastuti et al., 2021). For instance, teachers cannot communicate or control the students with a poor signal directly, which leads to difficulty in conducting effective interaction. As what had been said by Miller in Gherheş et al. (2021), technology can ultimately be a tool but cannot replace face-to-face interaction where students and teachers use different intonations, body language, facial expressions, and many more to transmit various emotions. Meanwhile, on online platforms, like Google Meet or Zoom, the interaction produced is limited, and many students often feel more anxious to do a discussion on the online media.

Furthermore, teachers also found it difficult to follow students’ progress (Arifuddin et al., 2021; Kusuma et al., 2021; Saputra et al., 2022; Widiastuti et al., 2021; Zboun & Farrah, 2021). Since the video conference is occasionally conducted regarding lots of internet data needed, teachers cannot know well the students’ weaknesses and strengths or their actual progress. The tasks that are submitted cannot be guaranteed as students’ original work. Saputra et al. (2022) found that although online tests, quizzes, and other digital assessments were effective in assessing students, it is still difficult to follow or track their progress. This became one of the high-ranking challenges found (Saputra et al., 2022). Similar findings were also published by Kitishat et al. (2020) related to tracking the students’ progress became one of the key issues in online education.

In addition, it was also a challenge to determine the Originality of students’ work (Arrieta et al., 2020; Dwiyanti & Suwastini, 2021; Saputra et al., 2022; Wibowo & Novitasari, 2021). Since there is no teachers’ direct control, students can cheat by submitting tasks made by someone else, including their peers, or they can get it from the internet. It is because online learning allows students to access everything, including learning materials from thousands of sources on the internet. There is no original idea that comes from them. Therefore, students’ work scores or grade do not reflect their true selves due to these academic dishonesty or cheating issues (Dwiyanti & Suwastini, 2021; Saputra et al., 2022). Verhoe and Coetser (2021) also found that some university students in South Africa were dishonest in doing online assessments because of the lack of monitoring.

Last, the limited access to digital devices was also found as a challenge to online assessment implementation in Indonesia (Fathurochman, 2021; Fauzani et al., 2021; Widiastuti et al., 2021). The challenges in the technical use of media and tools in online learning include limited access to computer and smartphone devices. As a result, many students who do not have Android phones cannot join in web-based learning (Fathurochman, 2021). Similarly, according to Efriana (2021), some students do not have any digital devices; if any, they belong to students’ parents. Students often take turns using their parents’ devices to study online. To learn online, they sometimes use the devices after their parents come home from work in the evening or night, whereas students’ schedules generally start in the morning until the afternoon.

The following diagram illustrates the opportunities for implementing online assessment during the Covid-19 pandemic in Indonesia, as summarized from the twenty research articles.

![Fig. 2. Opportunities of Online Assessment Implementation in Indonesia. Description: A = Providing flexibility. B = Promoting direct and immediate feedback. C = Decreasing students’ anxiety. D = Improving students’ autonomous learning. E = Increasing teachers’ language assessment knowledge. F = Increasing time management skills.](http://dx.doi.org/10.24018/ejedu.2022.3.6.421)
2020; Fitriyah & Jannah, 2021; Kusuma et al., 2021; Ukhwrioyiah et al., 2021; Wibowo & Novitasari, 2021; Yulianto & Mutjahid, 2021). It is flexible for students to do the online assessment anytime and anywhere within the deadline. The virtual classes offer the flexibility for students to schedule their timeline, which can encourage their self-developing skills (Ukhwrioyiah et al., 2021). Online assessments are also beneficial for the teachers to evaluate the students anytime and anywhere. Students are delighted since they can do their assignments at home and they do not need to come to school or campus (Divayana et al., 2021; Fitrniady et al., 2020; Kusuma et al., 2021). The idea of online assessment flexibility is in line with Alruwais et al. (2018) for whom students prefer e-assessment since it helps them to learn and access the tasks or exams in their locations, especially in remote areas.

Another opportunity dealt with promoting direct and immediate feedback (Arifuddin et al., 2021; Fitrniady et al., 2020; Kusuma et al., 2021; Luthfiyyah et al., 2021; Syafrizal & Pahamzah, 2020; Wibowo & Novitasari, 2021; Yulianto & Mutjahid, 2021; Zboun & Farrah, 2021). The digital assessment tools decrease the time and cost of input data manually since it offers automated or instant feedback and scoring. Therefore, students can have faster access to the results (Arifuddin et al., 2021). The computerized system also allows measuring the learning more accurately. Students can practice several times about similar questions and realize their learning strengths and weaknesses (Arifuddin et al., 2021; Fitrniady et al., 2020; Luthfiyyah et al., 2021). Students’ critical reflection does not only happen when they recheck their tasks, but it also occurs when they reflect on peers’ comments and make comparisons with their friends’ works (Kusuma et al., 2021). For some teachers handling big classes, it is time-consuming to check, correct, grade, and give feedback to students’ works individually. With the help of online assessments, such as online quizzes, effectively assists in providing immediate feedback and score. Some applications also already give the correct answers with a complete explanation. Hung (2021) found that integrating technology into assessments is a good solution during the pandemic. Students in VNU-University of Education showed that online assessment tools, such as Moodle, can increase students’ and teachers’ interaction and help them to give each other feedback immediately, especially in the discussion forums.

Online assessments also provided an opportunity to improve students’ autonomous learning (Arifuddin et al., 2021; Arrieta et al., 2020; Fitriyah & Jannah, 2021; Kusuma et al., 2021; Luthfiyyah et al., 2021; Ningsih et al., 2021; Syafrizal & Pahamzah, 2020; Ukhwrioyiah et al., 2021). Students with good preparations for online assessments become more autonomous and independent in learning. For example, students have to practice their speaking skills at home during the pandemic by asking them to submit a video. They will practice fluency or pronunciation before filming to speak fluently in their videos. This activity trains students to develop learning responsibility, which can lead them to become independent and autonomous learners. A similar finding comes from the survey by Bhandari et al. (2020), who figured out that students’ regular events, like online group discussions, quizzes, online presentations, or peer teaching, where students can actively develop self-directed learning. It motivates them to read on their own.

Another opportunity for online assessment is increasing teachers’ language assessment knowledge (Divayana et al., 2021; Dwiyanti & Suwastini, 2021; Fathurrochman, 2021; Fauzani et al., 2021; Luthfiyyah et al., 2021; Syafrizal & Pahamzah, 2020; Yulianto & Mutjahid, 2021). By designing online assessments, teachers will be more up to date with the teaching trends based on students’ needs. They are not only required to update their pedagogical knowledge but also technological knowledge due to the development of technology use in assessing students during online learning. Teachers can explore more ways to give online assignments. In their research, Zhang et al. (2021) mention that the practices of online assessment train teachers to be adaptive and context-dependent. Teachers may undergo many plan changes to adjust to different assessment needs and to be ready for unexpected problems.

The next opportunity was to decrease students’ anxiety (Arrieta et al., 2020; Kusuma et al., 2021; Syafrizal & Pahamzah, 2020; Wibowo & Novitasari, 2021; Zboun & Farrah, 2021). Many students indicate that they tend to be more relaxed and enjoy completing online assignments or tests. This makes them less anxious (Zboun & Farrah, 2021). They have less anxiety because they do not get direct observation which may put them under pressure. The tasks which require them to do videoing also cause them to become more confident in front of the camera since they used to do it. As the study by Phanphech et al. (2022) suggested that online learning has to be continually developed since it can reduce students’ anxiety.

Last, increasing time management skills were also found to the opportunity for online assessment implementation during the pandemic in Indonesia (Fitriyah & Jannah, 2021; Ukhwrioyiah et al., 2021; Wibowo & Novitasari, 2021). Online assessments become more efficient since there is a deadline for each task. Since students get lots of assignments from every subject and teacher, they are forced to schedule their timeline as effectively as possible. This promotes time management skills where students should manage their burden and take responsibility for it. As a result, students subconsciously build their self-developing skills for real-life (Ukhwrioyiah et al., 2021). This is supported by Batbaar and Amin (2021), who found that online learning significantly influences undergraduate students’ time management during the pandemic.

IV. CONCLUSION

In conclusion, the online assessment implementation has challenges and opportunities for both students and teachers. The online assessment during the Covid-19 pandemic has provided opportunities to conduct the learning activity successfully, including providing flexibility in dealing with time and space, promoting direct and immediate feedback to students, decreasing students’ anxiety, improving students’ autonomous learning, increasing teachers’ language assessment knowledge and time management skill. Although the online assessment is said to be very easy and exciting, providing those opportunities, it is clearly stated by some literature reviewed that the online assessment as a part of
learning activity during the pandemic is quite challenging. The teachers and students share the same challenges, such as extra expenses for internet costs and connectivity and access to digital devices. Teachers and students may lack digital literacy, increasing the online assessment challenges. Another challenge of online assessment is the questions about the Originality of students’ work, monitoring students’ progress, conducting effective interaction between students and teacher, and handling less motivated and discouraged students.

Concerning challenges and opportunities, teachers should be able to adapt their offline teaching practices to online learning. Before employing the assessment tools, teachers must know the student’s condition and characteristics. The type of assessment used must be in line with the student’s needs to help them to reach their language learning goals. They also need to be open-minded, flexible, and easy to adapt to facilitate and assist the students. Students should also continually adjust their way of learning through online communication technology. Additionally, the stakeholders, like the institutions, schools, and policymakers, should also make a suitable and proper assessment and do analysis as needed. The findings provide better online practices for schools, policymakers, and future research.

REFERENCES

Adedayo, O. B., & Soykan, E. (2020). Covid-19 pandemic and online learning: The challenges and opportunities. Interactive Learning Environments, 28(2-3), 1–13. https://doi.org/10.1080/10494820.2020.1813180.

Ali, M. K., & Maksum, H. (2020). Utilization of e-learning-based ICT learning using the Google Classroom application during the Covid-19 pandemic. Journal of Education Research and Evaluation, 4(4), 373–380. https://doi.org/10.23887/jere.v4i4.29181.

Aruwais, N., Wills, G., & Wald, M. (2018). Advantages and challenges of using e-assessment. International Journal of Information and Education Technology, 8(1), 34–37. https://doi.org/10.18178/ijiet.2018.8.1.1008.

Amos, A. A., Adelani, F. J., & Adeboya, A. Y. (2015). The adoption of e-learning to the study of social studies at the secondary school levels in Nigeria. Asia Pacific Journal of Contemporary Education and Communication Technology, 1(1), 1–7.

Appiah, M., & Tonder, F. van. (2018). E-assessment in higher education: A review. International Journal of Business Management and Economic Research (IJBMER), 9(6), 1454–1460. www.ijbmer.com.

Arifuddin, A., Turmudi, T., & Rokhmah, U. N. (2021). Alternative assessments in online learning during Covid-19 pandemic: The strengths and weaknesses. International Journal of Elementary Education, 5(2), 240–247. https://doi.org/10.23887/ijee.v5i2.33532.

Arrieta, G. S., Dancel, J. C., & Agbiset, M. J. P. (2020). Teaching science in the new normal: understanding the experiences of junior high school science teachers. Jurnal Pendidikan MIPA, 21(2), 146–162. https://doi.org/10.23906/jmpa.v21i2.p146-162.

Bakia, M., Shear, L., Toyama, Y., & Lasseter, A. (2012). Understanding the implications of online learning for educational productivity. In Educational Technology, U.S. Department of Education. http://cket.scl.edu/publications/displayPublication.jsp?ID=913.

Basham, J. D., Blackboy, J., & Marino, M. T. (2020). Opportunity in crisis: the role of universal design for learning in educational redesign. Learning Disabilities, 18(1), 71–91.

Batbaatar, N., & Amin, G. (2021). Students’ time management during online class. Education, 11(1), 169–180.

Bhandari, B., Chopra, D., & Singh, K. (2020). Self-directed learning: assessment of students’ abilities and their perspective. Advances in Physiology Education, 44(3), 383–386. https://doi.org/10.1152/ADVANCE.00010.2020.

Çalıkoğlu, B. S. (2019). Challenge-oriented behavior types: A new explanation. International Electronic Journal of Elementary Education, 12(22), 197–204. https://doi.org/10.26822/jeje.2019257667.

Clarín, A. S., & Baluyos, E. L. (2022). Challenges encountered in the implementation of online distance learning. EduLine: Journal of Education and Learning Innovation, 2(1), 33–46. https://doi.org/10.35877/434r.eduline591.

Divayana, D. G. H., Adiarta, A., & Suyasa, P. W. A. (2021). Development of maternal contents and online assessment based on the Sevima Edlink platform for online learning of program evaluation subject during Covid-19 pandemic in Indonesia. Journal of Technology and Science Education (JOTSE), 11(2), 498–512. https://doi.org/10.3926/jotse.1243.

Dwarsi, N. K. A., & Suwastika, A. (2021). Assessment for writing skills in online learning. Lingua Scientia, 28(1), 8–19. https://ejournal.uniksidaka.id/index.php/JIBB/article/view/29069.

Efrians, L. (2021). Problems of online learning during Covid-19 pandemic in EFL classroom and the solution. JELITA: Journal of English Language Teaching and Literature, 21(2), 38–47.

Fathurrahman, I. (2021). Online evaluation in the pandemic disruption in Madrasah: Opportunities and challenges based on qualitative report. Jurnal Ilmu Pendidikan Islam, 4(4), 68–74. https://doi.org/10.25217/ji.v6i2.983.

Fauzani, R. A., Senen, A., & Retnawati, H. (2021). Challenges for elementary school teachers in attitude assessment during online learning. Journal of Education Research and Evaluation, 5(3), 362–372. https://doi.org/10.23887/jere.v5i3.33226.

Fitriyadi, G., Sugiyanto, & Sugarto, T. (2021). Penilaian aspek kognitif dalam pendidikan tinggi. Gelanggang Pendidikan Jasmani Indonesia, 4(2), 25–30. https://journal2.um.ac.id/index.php/gpi.

Fitriyiah, I., & Jamnah, M. (2021). Online assessment effect in EFL classroom: An investigation on students and teachers’ perceptions. JELITAJ (Indonesian Journal of English Language Teaching and Applied Linguistics), 5(2), 265–284. https://doi.org/10.21093/jelitaj.v5i2.709.

Fuller, R., Joynes, V., Cooper, J., Bouriscot, K., & Roberts, T. (2020). Could Covid-19 be our ‘there is no alternative’ (TINA) opportunity to enhance assessment? Medical Teacher, 42(7), 781–786. https://doi.org/10.1080/0142193X.2020.1779206.

George, M. W. (2008). The elements of library research: What every student needs to know. Princeton University Press.

Gherheș, V., Stoian, C. E., Fărcășu, M. A., & Stanici, M. (2021). E-learning vs. face-to-face learning: Analyzing students’ preferences and behaviors. Sustainability (Switzerland), 13(8), 4381. https://doi.org/10.3390/su13084381.

Guangal, F. M., Suhail, A. H., Khalil, M. L., & Khidhir, B. A. (2020). Challenges of remote assessment in higher education in the context of Covid-19: A case study of Middle East College. Educational Assessment, Evaluation and Accountability, 32(4), 519–535. https://doi.org/10.1007/s11092-020-09340-w.

Hulbert, B., Berman, B. R., & Adams, S. (1997). Towards an understanding of “Opportunity.” Marketing Education Review, 7(3), 67–73. https://doi.org/10.1057/s125808.1997.11488608.

Hung, L. T. (2021). How does online formative feedback impact student’s motivation and self-directed learning skills during the Covid-19 pandemic? Jurnal Pendidikan E-Learning dan Social Research, 11(5), 11–20. https://doi.org/10.23941/jpsr-2021-0101.

Ja’ashan, M. N. H. (2020). The challenges and prospects of using e-learning among EFL students in Bisha University. Arab World English Journal, 11(1), 124–137. https://doi.org/10.24093/awej/vol11i1.11.

Joshi, A., Vinay, M., & Bhaskar, P. (2020). Impact of coronavirus pandemic on the Indian education sector: Perspectives of teachers on online teaching and assessments. Interactive Technology and Smart Education, 18(2), 205–226. https://doi.org/10.1080/1170393X.2020-108087.

Kitishat, A. R., Omar, K. H. Al, & Moman, M. A. K. Al. (2020). The Covid-19 crisis and distance learning: E-teaching of language between reality and challenges. Asian ESP Journal, 16(51), 316–326.

Kusuma, I. P. I., Mahayanti, N. W. S., Gunawan, M. H., Rachman, D., & Pratiwi, N. P. A. (2021). How well do e-portfolios facilitate students’ learning engagement in speaking courses during the Covid-19 pandemic? Indonesian Journal of Applied Linguistics, 11(2), 351–363. https://doi.org/10.17509/jial.v11i2.30583.

Luthfiyah, R., Aisyah, A., & Sulistyo, G. H. (2021). Technology-enhanced formative assessment in higher education: A voice from Indonesian EFL teachers. EduLine: Journal of English Education, Literature and Culture, 6(1), 42–54. https://doi.org/10.30659/e6.1.42-54.

Madya, S. A., & Abdulrahman, (2021). Online learning implementation during the Covid-19 pandemic. Advances in Social Science, Education and Humanities Research, 539, 26–31. https://doi.org/10.2991/assher.k.211110.092.
Malilllin, L. D. L., Mendoza, L. C., Malilllin, J. B., Felix, R. C., & Lipayon, I. C. (2020). Implementation and readiness of online learning pedagogy: A transition to Covid 19 pandemic. *European Journal of Open Education and E-Learning Studies*, 5(2), 71–90. https://doi.org/10.46827/ejee.v5i2.3321.

Meşe, E., & Sevilen, Ç. (2021). Factors influencing EFL students’ motivation in online learning: A qualitative case study. *Journal of Educational Technology & Online Learning*, 4(1), 11–22. https://doi.org/10.31681/jetol.817680.

Ningsih, T., Yuwono, D. M., Sholehuddin, M. S., & Suharto, A. W. B. (2021). The significant of e-assessment for Indonesian literacy with character education in pandemic era. *Journal of Social Studies Education Research (JSSER)*, 12(4), 231–256.

Nurkanto, J., Prihandoko, L. A., Maret, U. S., Surakarta, K., & Java, C. (2022). Students’ problems of academic writing competencies, challenges in online thesis supervision, and the solutions: thesis supervisors’ perspectives. *TEFLIN Journal*, 33(1), 123–147. https://doi.org/10.15639/teflinjournal.v33i1/123-147.

Phanpheap, P., Tanittheerapan, T., Mungkung, N., Anunnurgrusun, S., Chunkul, C., Songrak, A., Yuji, T., & Kinoshita, H. (2022). An analysis of student anxiety affecting on online learning on conceptual applications in Physics: Synchronous vs. asynchronous learning. *Education Sciences*, 12(278), 1–20. https://doi.org/10.3390/eduscisci2040278.

Pokhrel, S., & Chhetri, R. (2021). A literature review on impact of Covid-19 pandemic on teaching and learning. *Higher Education for the Future*, 8(1), 133–141. https://doi.org/10.1177/2347631120983481.

Rachmawati, D. L., Purwati, O., & Anam, S. (2022). ESP teachers’ sociocultural challenges in online formative assessment: voices of teachers, learners, and coordinators. *Computer Assisted Language Learning Electronic Journal (CALL-EJ)*, 23(1), 150–167.

Rapana, C., Botturi, L., Goodyear, P., Gulirda, L., & Koole, M. (2020). Online university teaching during and after the Covid-19 crisis: Refocusing teacher presence and learning activity. *Postdigital Science and Education*, 2(3), 923–945. https://doi.org/10.1007/s42438-020-00155-y.

Saputra, D. B., Auyuhia, H. Y., & Muswari, R. (2022). Teachers’ perceptions of challenges in online learning: voices from secondary EFL teachers. *JOALL (Journal of Applied Linguistics and Literature)*, 7(1), 104–119. https://doi.org/10.33369/joall.v7i1.18855.

Sujana, I. M., Udin, U., Susanti, N. W. M., & Artifuddin, A. (2020). Integrating the deductive method and holistic assessment approach to teaching English grammar in English education programmes. *Indonesian TESOL Journal*, 2(2), 99–115. https://doi.org/10.24256/tjt.v2i2.1201.

Syafitri, S., & Pahamzah, J. (2020). Language assessment in English language teaching: A washback of Indonesian students’ test in Covid 19 situation. *Journal of Southwest Jiaotong University*, 55(4), 1–10. https://doi.org/10.35741/issn.0258-2724.55.4.4.0.

Ukhrowiyah, N. F., Nasihah, M., & Pratawati, F. M. (2021). Language assessment in online learning: Challenges and effective strategies for ESP classrooms. *Acitya: Journal of Teaching & Education*, 3(1), 2021. https://doi.org/10.30650/ajte.v3i1.2156.

Verhoef, A. H., & Coetser, Y. M. (2021). Academic integrity of university students during emergency remote online assessment: An exploration of student voices. *Transformation in Higher Education*, 6, 1–12. https://doi.org/10.4102/THEL.V6I0.132.

Wibowo, F. E., & Novitasari, U. (2021). An analysis of online assessment in teaching English. *PROJECT (Professional Journal of English Education)*, 4(3), 521–529. https://doi.org/10.22460/project.v4i3.p521-529.

Widiastuti, I. A. M. S., Mantra, I. B. N., Sukoco, H., & Santosa, M. H. (2021). Online assessment strategies to enhance students’ competence and their implementational challenges. *JEES (Journal of English Educators Society)*, 6(2), 245–251. https://doi.org/10.21070/jees.v6i2.1378.

Yulianto, D., & Mutaahid, N. M. (2021). Online assessment during Covid-19 pandemic: ESL teachers’ perspectives and their practices. *JET (Journal of English Teaching)*, 7(2), 229–242. https://doi.org/10.33541/jet.v7i2.2770.

Zboun, J. S., & Farrah, M. (2021). Students’ perspectives of online language learning during corona pandemic: Benefits and challenges. *Indonesian EFL Journal (REFL)*, 7(1), 13–20. https://doi.org/10.25134/refl.v7i1.3986.

Zhang, C., Yan, X., & Wang, J. (2021). EFL teachers’ online assessment practices during the Covid-19 pandemic: Changes and mediating factors. *Asia-Pacific Education Researcher*, 30(6), 499–507. https://doi.org/10.1007/s40299-021-00589-3.