



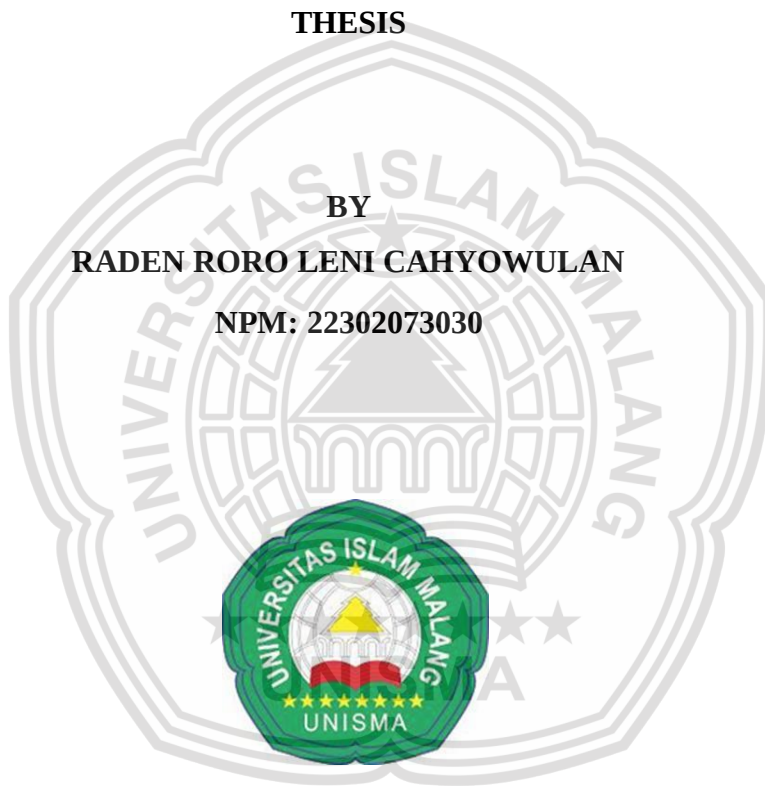
**JUNIOR HIGH SCHOOL STUDENTS' AND TEACHERS'
PERCEPTIONS AND CHALLENGES IN USING
SMARTPHONES FOR ONLINE SUMMATIVE ASSESSMENTS
THROUGH THE EXAMBRO APPLICATION**

THESIS

BY

RADEN RORO LENI CAHYOWULAN

NPM: 22302073030



**UNIVERSITAS ISLAM MALANG
POSTGRADUATE PROGRAM
ENGLISH LANGUAGE TEACHING STUDY PROGRAM
NOVEMBER 202**



ABSTRACT

Cahyowulan, Raden Roro Leni. 2025. *Junior High School Students' and Teachers' Perceptions and Challenges in Using Smartphones for Online Summative Assessments through the Exambro Application* Thesis, Master Degree Program in English Language Education, Universitas Islam Malang. Advisors: Dr. Imam Wahyudi Karimullah, S.S., M.A, and Dr. Dra. Mutmainnah Mustofa, M.Pd.

Keywords: smartphone-based tests, summative assessment, junior high education, students' perception, teacher perceptions, technology in education

Nowadays mobile learning has emerged as a response to the fast changing technology developments, with smartphones becoming essential tools for internet access and modern education. Smartphone features that are portable, lightweight, and have powerful capabilities make them favourable for use. Their widespread availability allows schools to conduct online tests accessible to all students. Despite growing interest, limited research explores about junior high school students and teachers' perception on the implementation of online summative assessments using smartphone.

This study aims to investigate junior high school students' and teachers' problems, solutions and perceptions of smartphone-based summative assessments.

Using a phenomenological qualitative approach, the research explored participants' experiences and views to identify patterns and themes. The study involved 58 students and 12 teachers from a state junior high school in Blitar, Indonesia.

Findings revealed that students' problems were connectivity issues (74,1%), device limitations (53,4 %), application problems (12%), and logistical concerns (10,3%) such as battery charging. The solution for students from the school were either using the school laboratory (79,3%), refreshing or restarting the students' smartphones (27,6%). Students' perception basically positive. Most students (81%) felt comfortable or even very comfortable with smartphone-based exams. They valued reduced writing fatigue, quick use, and simplified marking.

Most teachers experienced (83.3%) encountered no issues, while only 16.7% mentioned problems with unstable internet connections. Their main concerns instead focused on test validity, student focus, and academic integrity. Approximately 25% of teachers were concerned regarding students' cheating. In addition, 16.7% of teachers also cited that smartphones distracted students or made them rush during tests. Similarly, 16.7% also cited the restriction of smartphone-based tests that if it focuses on end answers instead of solutions of problems. To address the issue, the participating teachers proposed three main solutions: using a more secure paid testing platform, holding assessments in school computer labs to reduce device-related problems, and offering specific training for both teachers and students. Overall, the findings indicate that despite existing challenges, most teachers and students favour smartphone-based assessments because of their efficiency, sustainability, and ease of grading.

ABSTRAKSI

Cahyowulan, Raden Roro Leni. 2025. Persepsi dan Tantangan Siswa serta Guru SMP dalam Menggunakan Smartphone untuk Penilaian Sumatif Daring melalui Aplikasi Exampro. Tesis, Program Magister Pendidikan Bahasa Inggris, Universitas Islam Malang. Pembimbing: Dr. Imam Wahyudi Karimullah, S.S., M.A., dan Dr. Dra. Mutmainnah Mustofa, M.Pd.

Kata kunci: tes berbasis smartphone, penilaian sumatif, pendidikan SMP, persepsi siswa, persepsi guru, teknologi dalam pendidikan

Saat ini, pembelajaran berbasis internet muncul sebagai respons terhadap perkembangan teknologi yang berubah dengan sangat cepat, menjadikan telepon genggam smartphone sebagai alat penting untuk akses internet dan pendidikan moderen. Fitur smartphone yang portabel, ringan, dan memiliki kemampuan kuat menjadikannya pilihan yang disukai. Ketersediaannya yang luas memungkinkan sekolah untuk melaksanakan tes daring yang dapat diakses oleh semua siswa. Meskipun minat terhadap hal ini semakin meningkat, penelitian mengenai persepsi siswa dan guru SMP terhadap pelaksanaan penilaian sumatif daring menggunakan smartphone masih terbatas.

Penelitian ini bertujuan untuk menyelidiki masalah, solusi, dan persepsi siswa serta guru sekolah menengah pertama terhadap penilaian sumatif berbasis smartphone. Dengan menggunakan pendekatan kualitatif fenomenologis, penelitian ini mengeksplorasi pengalaman dan pandangan peserta untuk mengidentifikasi pola dan tema. Studi ini melibatkan 58 siswa dan 12 guru dari sebuah SMP negeri di Blitar, Indonesia.

Hasil penelitian menunjukkan bahwa masalah yang dialami siswa meliputi kendala konektivitas (74,1%), keterbatasan perangkat (53,4%), masalah aplikasi (12%), serta kendala logistik (10,3%) seperti kebutuhan pengisian daya baterai. Solusi yang diberikan sekolah kepada siswa antara lain menggunakan laboratorium sekolah (79,3%) serta melakukan penyegaran (refresh) atau memulai ulang smartphone siswa (27,6%).

Persepsi siswa pada dasarnya positif. Sebagian besar siswa (81%) merasa nyaman atau bahkan sangat nyaman dengan ujian berbasis smartphone. Mereka menghargai berkurangnya kelelahan menulis, kemudahan penggunaan, dan proses penilaian yang lebih sederhana.

Sebagian besar guru (83,3%) tidak mengalami kendala berarti, sementara hanya 16,7% yang menyebutkan masalah terkait koneksi internet yang tidak stabil. Namun, kekhawatiran utama guru berfokus pada validitas tes, konsentrasi siswa, dan integritas akademik. Sekitar 25% guru mengungkapkan kekhawatiran tentang potensi kecurangan siswa. Selain itu, 16,7% guru menyatakan bahwa smartphone dapat mengalihkan perhatian siswa atau membuat mereka terburu-buru dalam mengerjakan tes. Sebanyak 16,7% lainnya menyoroti keterbatasan tes berbasis smartphone yang hanya menekankan jawaban akhir tanpa memperhatikan proses penyelesaian masalah.

Untuk mengatasi hal tersebut, guru yang berpartisipasi dalam penelitian mengusulkan tiga solusi utama: penggunaan platform tes berbayar yang lebih aman, pelaksanaan asesmen di laboratorium komputer sekolah untuk mengurangi kendala perangkat, dan penyediaan pelatihan khusus bagi guru serta siswa. Secara keseluruhan, temuan menunjukkan bahwa meskipun terdapat tantangan, sebagian besar guru dan siswa menyukai penilaian berbasis smartphone karena efisiensi, keberlanjutan, dan kemudahan pengoreksiannya.

CHAPTER I

INTRODUCTION

This chapter provides an explanation of the research foundation by outlining the background, questions, goals, scope, and limitations of the study. Additionally, the explanation of important terminology and the importance of the research are covered.

Background of the Study

Language learning and language testing are inseparably linked because testing serves as a vital tool to evaluate a learner's understanding and use of the language. As long as there are students engaged in language learning, testing will continue to play an indispensable role in the educational process. Essentially, a test is a way to gauge someone's aptitude, expertise, or performance in a certain field. Tests are planned administrative processes that take place at specific points in a curriculum when students must summon all of their resources to perform at their best, aware that their answers will be recorded and assessed. In contrast, assessment is a continuous process that covers a considerably larger area. Thus, tests are just one component of assessment. (Brown, 2003). Assessments allow educators to measure a student's progress, ensuring alignment with the

learning objectives outlined in the curriculum. This process is critical for monitoring and guiding learners toward achieving specific language



competencies (Suaco et al., 2023). Final exams are examples of summative assessment. Assessment is a crucial component of the learning process, serving not only to support learning and provide valuable information but also to offer feedback to educators, students, and their parents or guardians (Wibowo et al., 2024).

The 2020 COVID-19 pandemic made online education a necessity, disrupting traditional learning globally. Furthermore, Noorbehbahani et al. (2022), as cited in Whitlow & Metts (2024), highlight that the pandemic compelled 1.5 billion students and 63 million educators to transition to online learning. Even prior to the pandemic, online courses were gaining traction due to students' preference for flexible and convenient options for higher education.

This was also true with the junior high school in Blitar, East Java, which became the subject of this research. Since 2020 the school has applied smartphone based summative test exchangeable with paper and pen- based test, up to now. This is due to its convenience as well as to catch up with the rapid advancement of technology, particularly mobile devices that has transformed 21st-century life and education.

Nowadays mobile learning has emerged as a response to these developments, with smartphones becoming essential tools for internet access and modern education. Therefore, it is a common thing for teachers to ask students to utilize their smartphone as learning device. Smartphone features that are portable, lightweight, and have powerful capabilities make them favourable for use. Their widespread availability allows schools to conduct online tests accessible to all students (Gromik & Litz, 2021; Mengorio & Dumlao, 2019).

Numerous studies have explored teachers' perceptions of online test implementation. For instance, Handrayani, (2022) examined senior high school

teachers' perceptions of online testing in Bandung, Indonesia. Tresnawati & Mustofa, (2022) investigated vocational high school students' perspectives on online learning in Banyuwangi, Indonesia. Additionally, Abumalik & Alqahtani (2024) evaluated the effectiveness of online testing compared to traditional paper-based tests among female university students in Saudi Arabia. Conversely, Syidiq & Inayati (2024) wrote about the utilization of an application as a learning evaluation media in an Indonesian junior high school, but it did not mention about the using of smartphone. While these studies provide valuable insights, research focusing specifically on the smartphone-based summative test for junior high school level remains limited. Therefore, to fill in the gap, this study is to find out the teachers' and students' perception on the utilization of smartphones in final exam as the summative tests in a junior high school.

Research Questions

The researcher formulates the following research question in light of the previously mentioned study background:

1. What are the students' problems, solutions and perception in implementing smartphone based final exam in summative test using Exambro application?
2. What are the teachers' problems, solutions and perception in implementing smartphone based final exam in summative test using Exambro application?

1.3 Research Objectives

The following is the research objective, which is based on the above-formulated study questions:

1. To identify junior high school students' problems, solutions, and perception in implementing smartphone-based final exam in summative test using Exambro application.

2. To identify teachers' problems, solutions and perceptions of implementing smartphone-based final exam in summative test using Exambro application.

1.4. Scope and Limitation

This study focuses on investigating the perceptions and problems that the students and teachers of a state junior high school in Blitar, East Java, Indonesia met in conducting smartphone based digital summative test. The scope of the study is limited to the use of a mobile application, Exambro, as a supplementary tool for summative test.

This study involved twelve (12) teachers and fifty-eight (58) students. The teachers were coming from different fields of study. Whereas the students were from grade 7,8 and 9. They participated voluntarily in the survey and interview, sharing their individual experiences with conducting online summative tests on smartphones, specifically in relation to their respective disciplines. To uphold research ethics, participants' identities were anonymized and replaced with unique codes.

The limitations of this study include the short duration of the intervention, the fairly small sample size, and the limited access to mobile devices for some students, which may affect the generalizability of the findings. Additionally, the study does not explore other factors that may influence a summative test such as students' motivation, prior knowledge, or home learning environment.

1.5 The Significance of the Research

This study is significant in the sense of it examines not only teachers' perspectives but also students' perspectives as well on the use of smartphones in junior high school summative assessment.

This research is expected to provide both theoretical and practical significance. This study is also helping to fill a gap in existing educational research. It is hoped that by exploring students and teachers' perceptions and problems, the findings can guide professional development programs in the future, ensuring educators are well-prepared for technology-driven assessments.

This research also provides valuable insights for school administrators and policymakers to create effective policies and allocate resources for integrating smartphones into testing.

1.6. Definition of Key terms

There are a few key terms to understand in this study since they help the researcher in conducting the investigation and maintaining concentration. These essential terms are given to readers to prevent misunderstandings and misinterpretations. Furthermore, it is essential to explain the following terminologies utilized in this study:

The key words of this research are as follows:

a. Perception

In this study, *perception* refers to students' and teachers' interpretations, attitudes, and judgments toward the use of online summative assessments, based on their experiences and expectations (Robbins & Judge, 2013).

b. Problem

In this research, *problem* refers to the specific difficulty or difficulties faced by students and teachers during the implementation of online summative assessments, such as internet connectivity, platform navigation, or limited digital skills (Brown, 2004).

c. Summative Assessment

The *Glossary of Education Reform* (Great Schools Partnership, 2014) defines summative assessment as "evaluations of student learning, skill acquisition, and academic achievement at the conclusion of a defined instructional period."

In this study, *summative assessment* refers to formal evaluations administered at the end of a learning unit or semester, conducted digitally to measure students' academic performance.

d. Online Assessment

Dictionary.com (2024) defines online assessment as "a test or evaluation administered via the internet."

In this context, *online assessment* refers to summative evaluations that are designed, administered, and submitted through web-based platforms.

e. Smartphone

A smartphone is a mobile phone that functions like a compact computer—with a touchscreen, internet access, apps, and advanced hardware features like cameras and GPS. It blends communication and computing in one handheld device.

f. E-Assessment Platform (Exambro)

JISC (2007) defines e-assessment platforms as "digital systems used to deliver and manage tests and assignments electronically."

In this study, *e-assessment platform* refers specifically to **Exambro (Exam Browser)**, a secure browser application used by schools in Indonesia to conduct online summative tests, preventing students from accessing other websites or applications during the test.



CHAPTER V

RESEARCH DISCUSSION

This chapter discusses the findings presented in Chapter IV in relation with the research questions and literature review. The discussion is organized into four main themes: students' perceptions, teachers' perceptions, problem faced by students, and problem faced by teachers.

5.1. Students' Problems, Solution and Perception

The most frequently encountered problem was connectivity to the internet (74.1%); after that came devices issues (53.4%), application issues (12%), and logistically oriented issues like charging the devices (10.3%). These results align with Alvarez (2016) and Handrayani (2022), who observed that infrastructural obstacles frequently disrupted online exams.

While 27.6% of the students reported no problem, many who experienced difficulties did so with the solutions available from the institution such as access to the computer laboratory (79.3%) or restarting devices/tests. This indicates that institutional support is highly crucial in overcoming technical obstacles.

There were also equity issues that came up. Although the majority of students had smartphones, 3.4% borrowed or had to share devices, which indicates Lai's (2023) observation concerning the long-standing digital divides despite increasing access to technology. Contrary to Brown (2003), who cited the case of cheating as the main problem of digital assessments, students were more worried about technical operations

on this case study. This is an indication that students at the junior high level regard technical issues more seriously, or the opportunity to cheat during the test is insignificant although not zero.

In the interview, students mentioned that there were at least three ways for students to cheat. The first was by not applying the test app, but directly copy the test link to Google Chrome. In that way, they can open another tab to find the answer from the Internet. The second way was simply by showing the screen of the device to their friends and asked the answer. Certainly, there was a chance to get caught easily by the proctor, so it rarely happened. The last one was simply by having two smartphones at the same time. That student will only admit bringing one smartphone only, and the teacher that proctoring the class would believe what the student said.

All 58 students reported receiving at least one form of school-provided solution for technical difficulties encountered during online assessments. The solutions primarily involve directing students to use the school's computer laboratory, refreshing or restarting their smartphones, or restarting the test. One unique response (S717) specifies that restarting the test did not result in loss of answers, suggesting a specific system feature or clarification in the response.

Whereas about the students' perception, the research discovered that the majority of the students had favourable views of smartphone-based summative assessments. Overall, 81% (47 of 58) indicated feeling comfortable (50%) or very comfortable (31%) during the tests. Their identified strengths included lower writing fatigue, quickness of use, and ease of marking. The highest identified strength was the simplicity and usability of the test (43.1%), and the next highest were saving on stationery requirements (17.2%) and environmental friendliness (13.8%). These

perceptions reflect Brown's (2003) point that computer-based tests (CBTs) provide flexibility, greater efficiency, and time saving, and Alvarez's (2016) remark that digital platforms facilitate the administration of tests.

From the perspective of equity, 74.1% of the students also agreed that smartphone-based examinations offered equal opportunities since 96.6% of them owned smartphones. This agrees with Gromik & Litz (2021) and Lai (2023), who highlight that digital natives get accustomed to online resources easily due to the prevalence of access and exposure. Nonetheless, 6.9% disagreed, indicating inequity on the side of students who borrowed the devices. This mirrors Oshchepkova et al.'s (2024) observation that the prevalence of the use of technology notwithstanding, the discourse on equity and accessibility remains ongoing.

Most of the students consisted of 48 students (81%) felt very comfortable and comfortable using smartphones for assessments, describing them as familiar and easy to use. Many noted that smartphones made testing more convenient compared to writing, with simpler navigation and less physical effort. This positive view was especially strong among Grade 8 students, where nearly all reported feeling comfortable. Their responses suggest that the practicality and ease of smartphones contribute to more favorable experiences during assessments.

Overall, the students' views justify previous studies that the digital test has been perceived as convenient and fun by the younger students, and also reveal that equity matters to the minority.

5.2. Teachers' Problems, Solution and Perceptions

Teachers reported significantly fewer technical issues than students did. 83.3% of them (10 of the 12 teachers) had no technical issues at all, and just 16.7% of them (2

teachers) reported unstable internet connections. Their issues were rather on validity, students' attention, and study integrity.

In order to overcome the problem, participating teachers suggested three solutions: adopting a more secure paid test application, conducting tests in school computer labs to minimize device issues, and providing targeted training for students and teachers. Overall, the study concludes that despite of the problems, most participants, both teachers and students, support smartphone-based assessments for their efficiency, sustainability, and streamlined grading.

Regarding teachers' perceptions, most expressed positive yet cautious attitudes. A total of 83.4% (10 of 12) considered smartphone-based assessments to be accurate or highly accurate, while 58% (7 of 12) reported feeling comfortable or very comfortable with their use. Teachers highlighted that online testing saves time, minimizes manual grading, and promotes environmentally sustainable practices.

Nevertheless, 33.3% (4 out of 12) of teachers opposed the continuation of smartphone-based assessments. Concerns included students' distraction, the risk of cheating, and the inability of tests to capture problem-solving processes. Therefore, teachers agree with the literature that digital tests are practical, but there are still doubts about how fair and trustworthy they are.

REFERENCES

- Amalik, A. M., & Alqahtani, F. A. (2024). Effectiveness of Online Testing Versus Traditional Testing: A Comparative Study of Saudi Female College Students. *Eurasian Journal of Applied Linguistics*, 10(1), 151–159. <https://doi.org/10.32601/ejal.10114>
- Arez, M. F. (2016). Language Testing in the Digital Era. In E. Martin-Monje, I. Elorza, & B. G. Riaza (Eds.), *Technology-Enhanced Language Learning for Specialized Domains: Vol. First* (pp. 61–72). Routledge. <http://lccn.loc.gov/2015037006>
- Briggs, D., Jacobs, L. C., & Sorensen, C. (2010). *Introduction to Research in Education* (8th ed.). Wadsworth, Cengage.
- Brown, H. D. (2003). *LANGUAGE ASSESSMENT: Principles and Classroom Practices* (First). Longman.
- Chamik, N., & Litz, D. (2021). Study benefits of smartphones: Perceptions of female emirati pre-service teacher undergraduates. *Education Sciences*, 11(12). <https://doi.org/10.3390/educsci11120817>
- Indrayani, D. (2022). Teachers' Problems and Challenges in Conducting Online Assessment. *International Conference on Studies in Education and Social Sciences*, 1–13. www.istes.org
- Iriyawati, D. F., Zuhairi, A., Sholihah, F. A., & Ubaidillah, M. F. (2024). Integrating Interactive Digital Media into Problem-Based Learning in EFL Reading: an Investigation on EFL Teacher Educators' Experiences. *XLinguae*, 17(4), 35–46. <https://doi.org/10.18355/XL.2024.17.04.03>
- Kapiche. (n.d.). *How to Do Thematic Analysis: 6 Steps & Examples*. (n.d.). Retrieved January 26, 2025, from <https://www.kapiche.com/blog/thematic-analysis>
- Kementerian Pendidikan dan Kebudayaan. (2020). Surat Edaran Nomor 4 Tahun 2020 tentang Pelaksanaan Kebijakan Pendidikan dalam Masa Darurat Penyebaran Coronavirus Disease (COVID-19). Kementerian Pendidikan dan Kebudayaan.
- Tempas.com. (2020, May 15). *Covid-19: Ini sederet perubahan kebijakan pendidikan di Indonesia*. <https://>

- S. L. (2023). Connecting in-class and out-of-class learning: Integrating online resources and blog writing for EFL proficiency enhancement. *JALT CALL Journal*, 19(3), 417–440. <https://doi.org/10.29140/jaltcall.v19n3.1202>
- ngorio, T. M., & Dumlao, R. (2019). The Effect of Integrating Mobile Application in Language Learning: An Experimental Study. *Journal of English Teaching*, 5(1), 50–63.
- Online. (2020, December 13). Kaleidoskop 2020: Nasib pembelajaran di era pandemi COVID-19. NU Online. <https://www.nu.or.id/nasional/kaleidoskop-2020-nasib-pembelajaran-di-era-pandemi-covid-19-m4N6b>
- vick, P. A., Lee, J., Wei, S., Mundorff, E. C., Santangelo, J. R., & Sonbuchner, T. M. (2022). Maximizing Academic Integrity While Minimizing Stress in the Virtual Classroom. *Journal of Microbiology & Biology Education*, 23(1). <https://doi.org/10.1128/jmbe.00292-21>
- chepkova, T., Tolstykh, O. M., Panasenko, E. V., Nazarova, N. A., & Petrova, N. V. (2024). Examining Changes in Foreign Language Educators' Attitudes towards the Use of Computer-Assisted Learning. *Studies in English Language and Education*, 11(2), 630–649. <https://doi.org/10.24815/siele.v11i2.36441>
- co, T. P., Mangaliag, A. D., & Gadgad, M. M. (2023). Collaborative Summative Assessment: Means for Enduring Learning and Attainment of 21st Century Skills in the Online Platform. *Journal of Education and Learning*, 12(1), 118. <https://doi.org/10.5539/jel.v12n1p118>
- ra Muhammadiyah. (2021). Data COVID-19 di Indonesia: Kasus terkonfirmasi, sembuh, dan meninggal dunia. <https://suaramuhammadiyah.id>
- diq, H. N. R., & Inayati, N. L. (2024). Utilization of the Riyu Exambro Application as a Learning Evaluation Media. *JIE (Journal of Islamic Education)*, 9(1), 400–416. <https://doi.org/10.52615/jie.v9i1.389>
- lor, P. (2024). Blended Learning Challenges of EFL Undergraduate Students: Student Learning Experience in an AI-integrated ESP Course. *Studies in English Language and Education*, 11(3), 1431–1449. <https://doi.org/10.24815/siele.v11i2.37472>
- snawati, M., & Mustofa, M. (2022). A Study on The Students' Motivation and Perception in E-Learning English (Case Study at Vocational School in Banyuwangi) in The Covid-19

Pandemic. *Abjadia : International Journal of Education*, 07(02), 256–268.

<https://doi.org/10.18860/abj.v7i12.17208>

ICEF. (2022). COVID-19 situation report: Indonesia, August 2022. UNICEF Indonesia.

<https://www.unicef.org/indonesia>

itlow, E. L., & Metts, S. (2024). Assuring Academic Integrity of Online Testing in Fundamentals of Accounting Courses. *Online Learning Journal*, 28(1), 87–105.

<https://doi.org/10.24059/olj.v28i1.3706>

owowo, E. P., Lestari, A., Adrian, M., Firdausiyah, K. S., Islamiy, J. H., Putri, R. D., Kemal, T., & Kurniawan, E. (2024). Exploring the Ethical Dimensions of Testing and Assessment: An Investigation Into Grade Inflation Among EFL Teachers. *OKARA: Jurnal Bahasa Dan Sastra*, 18(1), 71–97. <https://doi.org/10.19105/ojbs.v18i1.12676>

World Health Organization. (2020). WHO Director-General's opening remarks at the media briefing on COVID-19 – 11 March 2020. <https://www.who.int/director-general/speeches/detail>

