

TEACHERS' PERCEPTIONS OF SMARTPHONE-BASED SUMMATIVE ASSESSMENT IN MEASURING STUDENTS' ENGLISH LANGUAGE PROFICIENCY

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ABSTRACT

Although previous studies have examined smartphone-based assessment in EFL contexts, empirical research directly addressing teachers' experiences with smartphone-based summative assessment, particularly regarding its accuracy and implementation challenges remains limited. This study aims to explore teachers' perceptions of the smartphone-based summative assessment, to examine whether the results accurately reflect students' actual abilities, and to identify the challenges and benefits teachers experience in its implementation. This research employed a descriptive qualitative method, conducted at MA NW Korleko, involving two English teachers selected through purposive sampling. Data was collected through observation, semi-structured interviews, and documentation, and analyzed using an interactive model of data reduction, data display, and conclusion drawing. The findings show that smartphone-based summative assessment was effective in terms of administrative convenience and grading speed, but not yet effective in measuring students' English proficiency, as the application used could only assess two skills, reading and writing. Regarding accuracy, results did not always reflect students' true proficiency, as some students reportedly exploited a security loophole to bypass anti-cheating features. This study concludes that the effectiveness of smartphone-based summative assessment depends heavily on the quality of the application and the readiness of supporting technical infrastructure, rather than on the assessment method itself.

Keywords: *teacher's perceptions, summative assessment, smartphone-based assessment, English language proficiency.*

ABSTRAK

Meskipun penelitian sebelumnya telah mengkaji penilaian berbasis ponsel pintar dalam konteks pengajaran Bahasa Inggris sebagai Bahasa Asing (EFL), penelitian empiris yang secara langsung membahas pengalaman guru terkait penilaian sumatif berbasis ponsel pintar terutama mengenai akurasi dan tantangan pelaksanaannya masih terbatas. Penelitian ini bertujuan untuk mengeksplorasi persepsi guru terhadap penilaian sumatif berbasis ponsel pintar, untuk menguji apakah hasilnya secara akurat mencerminkan kemampuan siswa yang sebenarnya, serta untuk mengidentifikasi tantangan dan manfaat yang dialami guru dalam pelaksanaannya. Penelitian ini menggunakan metode kualitatif deskriptif, yang dilakukan di MA NW Korleko, dengan melibatkan dua guru bahasa Inggris yang dipilih melalui pengambilan sampel purposif. Data dikumpulkan melalui observasi, wawancara semi-terstruktur, dan dokumentasi, serta dianalisis

menggunakan model interaktif yang mencakup reduksi data, penyajian data, dan penarikan kesimpulan. Temuan menunjukkan bahwa penilaian sumatif berbasis ponsel pintar efektif dalam hal kemudahan administratif dan kecepatan penilaian, namun belum efektif dalam mengukur kemahiran bahasa Inggris siswa, karena aplikasi yang digunakan hanya dapat menilai dua keterampilan, yaitu membaca dan menulis. Mengenai akurasi, hasil tidak selalu mencerminkan kemahiran siswa yang sebenarnya, karena beberapa siswa dilaporkan memanfaatkan celah keamanan untuk menghindari fitur anti-kecurangan. Penelitian ini menyimpulkan bahwa efektivitas penilaian sumatif berbasis ponsel pintar sangat bergantung pada kualitas aplikasi dan kesiapan infrastruktur teknis pendukung.

Kata Kunci: Persepsi Guru, Penilaian Sumatif, Penilaian Berbasis Ponsel Pintar, Kemahiran Bahasa Inggris.

A. INTRODUCTION

The advancement of technology has caused significant changes in various aspects of human life, such as communication tools, transportation, and media information which are becoming increasingly sophisticated. This is no exception in, the field of education.

Technological advancements, have successfully shifted teaching methods from traditional approaches to more modern and engaging ones, such as the use of digital applications during lessons (Zahra et al., 2025)). In this era, teachers are encouraged to maximize the use of technology at all levels of education, this aligns with policy No. 16 of 2022 from the Ministry of Education, Culture, Research, and Technology on educational standards, which state 15 guiding principles for education. In 13th point state that "The use of information and communication technology to improve the efficiency and effectiveness of education" (Mali, 2023). Therefore, teachers have started to use technology as part of learning, including assessment, especially smartphone.

Assessment is a technique that is employed by teacher to test and measure students' knowledge, skill and comprehension of the material that has been delivered (Brown,

2004). Assessment is categorized into two types; formative assessment and summative assessment. Formative assessment occurs during the learning activity meanwhile summative assessment occurs at the end of the course or at the end of semester. By conducting the assessment, teacher can ascertain students' level of proficiency and understanding, as well as whether learning goals have been achieved (Selviani & Hartono, 2025)

Assessment outcomes provide various advantages, such as help teachers in gauging students' comprehension and proficiency regarding the material that has been delivered (Sinaga et al., 2024). The function of summative assessment is not only as a tool of measuring students' ability but also provides teacher with away to assess effectiveness of their teaching approaches, strategies and education resource (Rosnaeni, 2021)). Assessment results should reflect students' actual abilities without cheating or engaging in dishonest behavior, so the teacher must choose an instrument and assessment media carefully. Therefore, this study aims to examine teachers' perspectives and strategies in developing smartphone-based summative assessments and to explore how teacher perceive the

alignment between assessment result and students' actual English proficiency.

Although the integration of technology in language assessment has been widely discussed, previous studies have examined smartphone-based technology in EFL contexts from different angles. Prasetyo et al (2022) examined the general adoption of smartphones for EFL instruction during the pandemic, without addressing assessment practices specifically. Ruliany and Purnawarman (2021) explored teachers' perceptions of mobile gamebased assessment without distinguishing between formative and summative purposes.

Selviani and Hartono(2025) reviewed the use of Quizizz for summative evaluation through a literature-based approach, without collecting empirical data from teachers or students in an actual classroom setting. None of these studies has empirically examined, through direct data collection from teachers, how smartphone-based summative assessment is implemented, whether its results align with students' actual English proficiency, and what challenges and benefits teachers experience in practice. Therefore, this study offers novelty by providing an empirically grounded, integrated account of these three aspects specifically in the context of summative assessment.

Teachers hold the crucial responsibility in the assessment process since they alone can evaluate students' skills (Asamoah et al., 2024). Therefore, the teachers' perspective is crucial for determining how smartphone-based summative assessment is implemented and experienced in practice. Without understanding the teachers' perspective, it is difficult to determine the suitability of this summative

assessment in reflecting students' English language proficiency. Examining teachers' perspectives allows us to identify challenges and benefits they encounter during assessment. If these factors are left unexamined, the assessment process might not be optimal.

Based on this background, this study aims: (1) to explore teachers' perception of the implementation of smartphone based summative assessment, (2) to examine teachers' perception of the suitability of smartphone based summative assessment results in reflecting students' English proficiency, and (3) to identify the challenges and benefits of using smartphones as a tool for summative assessment.

B. RESEARCH METHOD

This study employed a descriptive qualitative research method to gain an in-depth understanding of teachers' views and opinions regarding the use of smartphones as a summative assessment tool for measuring students' English proficiency. This method is appropriate for this study because it allows the researcher to explore teachers' opinions, experiences, and perspectives regarding the implementation of smartphone-based summative assessment in a real educational setting.

This study was conducted at MA NW Korleko, an Islamic high school located in the Korleko village, Labuan Haji subdistrict. This school was selected because it met the research criteria, namely that it has integrated smartphones as a tool for conducting summative assessments for two years, this duration was considered sufficient for the English teachers to have gained adequate experience and knowledge regarding

the use of smartphones in summative assessment. Data collection took place during the 2025/2026 academic year, specifically on June 2nd 2026.

The participant in this study consists of English teachers at MA NW; the first teacher is Mrs. Bahyatun Nufus, 37 years old, who graduated with bachelor's degree in English education from Hamzanwadi University, she has been teaching for 4 years in MA NW Korleko. The second teacher is Mrs. Rizki Maulana Qudus, 28 years old, who also graduated from Hamzanwadi University, majoring in English education, she has been teaching at MA NW Korleko for 6 years. Both teachers have 2 years of experience using smartphones in summative assessment. Participants were selected using purposeful sampling based on their experience using smartphones as a medium for summative assessment.

In collecting the data, the researcher applied triangulation techniques through observation, interview, and documentation (Sugiyono, 2018). The observation checklist was used to observe the implementation of smartphone-based summative assessment in the EFL classroom, adapted from Ross (1996), as cited in Zohrabi (2013) covering students' activities, sources of input to students, students' behavior, and the distribution of classroom time. The interview questions were developed based on the dimension proposed in the Technology Mediated Assessment theory by Bennett (2002), namely measurement and fairness, technological dependability, and security, and were also supported by indicators adapted from a previous study conducted by Endra et al (2025). The documentation involved analyzing samples of the assessment instruments used, records of the

correction/scoring process, and any recorded incidents or technical issues encountered during the implementation of smartphone-based summative assessment.

The data in this study was analyzed using the interactive model proposed by Miles and Huberman (1984) as cited in Sugiyono (2018), consisting of data reduction, data display, and conclusion drawing. To ensure the trustworthiness of the data, the researcher applied the credibility technique proposed by Lincoln and Guba (1985) as cited in Haq (2023) through triangulation of observation, interview, and documentation data.

C. FINDINGS AND DISCUSSION

1. Teachers' Perception and Implementation of Smartphone-Based Summative Assessment

The result of observation based on the observation checklist indicates that all students already have smartphones to access the assessment questions. The assessment that day had a technical issue caused by an error in the application system being used which caused the start of the assessment to be delayed by 40 minutes. The technical issues did not affect the time allotted for completing the assessment, because the time for answering the questions will begin once the students had accessed and logged in into the application and clicked "log in" on the application screen so, the start and end times for completing the test depend on when students begin working on it. For the English class, students are given 1 hour to complete the test, and the question numbers assigned to students differ from one another; this is done to ensure students' answer and result reflect their own knowledge and abilities.

Teacher 1 said, *"And students will receive a randomized set of questions; they won't be the same. For example, question number one for Student 1 will be different from question number one for Student 2. That's why it minimizes the chance of students copying the answers to question number one or question number two."*

The findings showed that most students work on their own and do not discuss or ask their classmates for answers, because the questions for each student have different sequences and numbers. Students tend to behave appropriately during assessments, showing no signs of cheating, such as opening other websites to look up answers, because if they attempt to exit the app and access another site, they will automatically be penalized with a one-minute suspension from working on the test, which increases by five minutes for each subsequent violation. Teacher 1 stated: *"For example, if they leave the website to cheat or open another app, they'll receive a yellow card, be immediately stopped, and the exam will be halted right away; they'll have to wait another 15 minutes. If they violate the rules three times, they won't be allowed back in."*

The findings indicate that, according to the English teachers at MA NW Korleko, smartphone-based summative assessment is an effective method for conducting summative assessments. Both teachers agreed that this method, which uses the CBT Exambrowser application, offers many advantages, such as ease of distributing test questions, speed in grading students' answers, and ease in managing students' assessment scores. This is consistent with previous research conducted by Irawan et al (2025), which states that the main characteristics of technology-based assessment include efficiency,

flexibility, and personalization. Efficiency is reflected in the automatic correction process and instant reporting of results; Teacher 1 confirmed that students' results are displayed five minutes after they finish the test, so manual grading is no longer necessary. The use of smartphones as a medium for summative assessment is also consistent with Bennett (2002) theory, which states that the use of technology in assessment is not merely a shift from paper-based to digital assessment, but rather an effort to identify assessment methods that align with students' learning styles and media, as well as their habits in using technology, particularly smartphones in their daily lives.

2. The Suitability of Smartphone-Based Summative Assessment Results in Reflecting Students' English Proficiency

Teachers perceive that assessment results generally reflect students' actual English proficiency, but not consistently, since both teachers identified recurring cases where scores did not match students' classroom performance. Teacher 1 explains that sometimes the students with high performance and active in classroom receive unexpectedly low grades, which he attributed to technical issues with the students' devices, without further explaining the exact cause. Conversely, she also noted that there were students who were inactive and rarely attended class but still received grades above the Minimum Passing Score (KKM): *"It happens sometimes, maybe it's a problem with their cell phones; sometimes even smart students see their grades drop. And sometimes students who aren't active in class who rarely attend still score above the minimum passing grade."*

To confirm the score truly reflects the students' ability, Teacher 1 explained that there is a follow-up verification procedure, calling students for an interview and giving them additional oral or written tasks to test whether they can demonstrate an understanding commensurate with the scores they received. It was discovered that two students had brought a second cell phone into the exam room specifically to look up answers, while their primary cell phone, which had restricted access, was used to take the exam: *"...Kids these days are clever, they brought two phones... the other phone was used for cheating."* (Teacher 1)

Teacher 2 said: *"So here, sometimes it's reversed, flipped, right. The ones who are active in class, who we'd say are good in terms of effectiveness, cognitively some of them score lower than those who are never active, or those who are rarely active. Because the weakness here is, they use translation, they search. Basically, Chrome is the place we're wary of."* Unlike Teacher 1's opinion, Teacher 2 specifically linked this phenomenon to students accessing the CBT app via a browser (Chrome) instead of the official app, a workaround they were forced to use when their devices did not support the native app, which allowed them to exit the exam page and use translation or search features.

This smartphone based assessment is also unable to test all four English language skills; the limitations of the app used to present the questions are the main cause of this limitation. Teacher 1 said: *"According to the teacher, this approach isn't effective specifically for English. As the teacher mentioned earlier, grades can only be assigned for two components. Speaking and listening aren't included yet. So, it's not effective for foreign languages."*

Teacher 2 also said that the school has already tried to administer speaking and listening tests, but their implementation has not been optimal: *"So here, we're all focusing on four skills: reading, listening, and speaking. But because of technical equipment limitations here, I'm now focusing only on reading and writing."*

According to Song et al., (2024), mastery of the listening, speaking, reading, and writing skill plays a vital role in equipping EFL learners with communication skills, and assessing these four skills is crucial for determining whether students have achieved the established learning outcomes. Therefore, when an assessment measures only two of these four skills, the resulting scores cannot fully represent students' overall English proficiency, thereby inherently limiting the accuracy of the assessment results. This contradicts the principle of validity (Brown, 2004), which states that a valid assessment should measure students' abilities, not external factors beyond their control.

The most critical finding in this study was the security gap identified through the triangulation of the three data sources. The observational data revealed no indications of cheating detected during the assessment, as the CBT application used was equipped with active anti-cheating features. However, interview data revealed facts not captured by observation: according to teachers, approximately 30% of students accessed the test questions via the Chrome browser because their smartphones did not support the installation of the application. Students accessing the test via Chrome were not protected by the anti-cheating features, so they had the potential to open other websites to search for answers without being detected. This

situation directly threatens the reliability of assessment results, as emphasized by Alfianika and Sitohang (2022). In the context of Bennett's (2002) TMA security dimensions, this finding indicates that the existing security system has not fully closed all loopholes that allow cheating to occur, meaning the integrity of some assessment results remains questionable.

3. Challenges and Benefits Teachers Experience When Conducting Smartphone Based Summative Assessment

The most consistently cited benefit by both teachers was efficiency in the assessment administration process. Using the Exam browser CBT application allows teachers to distribute test questions simultaneously to all students without having to distribute them manually and eliminates the need to spend money on printing test questions on paper. This is in line with findings in Ashari et al. (2023), who state that smartphone-based assessments significantly reduce teachers' workload, as students' answers can be corrected automatically without requiring a manual grading process. Teacher 1 noted: *"As for challenges, there aren't any in fact, it's more beneficial and effective. It's more time-efficient, after all. If we use paper, it takes longer to grade. With this system, the scores are available in under 5 minutes."* Teacher 2 added similar benefits: *"After seeing its various benefits, such as easier administration, faster grading, and reduced paper usage."*

The most common challenge encountered is internet connectivity issues during summative assessments. Observational data showed that the assessment was delayed by 40 minutes during the testing period due to an error on the application server. Teacher 2 noted: *"It*

happens often both at the beginning and in the middle of the exam. The problems are that the data allowance runs out, sometimes the school's internet doesn't work, and sometimes their phones run out of battery." Teacher 2 also said: *"In every class, nearly 30% of students' cell phones don't work. But that's totally fine. 30% still have old-fashioned phones."* These findings align with Ertmer (1999), who identified external barriers or first-order barriers as the primary obstacles to technology integration in education, including limitations in facilities and supporting infrastructure. A similar finding was reported by Selviani and Hartono (2025), who stated that the uneven distribution of student devices creates disparities in the smartphone-based assessment process — a situation identical to that found in this study, where approximately 30% of students had to access the assessment via Chrome because their devices did not support the app.

The second challenge, no less serious, is the issue of security, as students who access the exam via Chrome rather than the app have an opportunity to cheat because Chrome lacks the anti-cheating features found in the app. This situation demonstrates that the security challenges in conducting technology-based assessments are not only related to the technology used but also stem from student behavior, which consistently finds loopholes to commit cheating. In the context of TMA, Bennett (2002) emphasizes that the security dimension of technology-based assessments is not an issue that can be fully resolved by technology alone; rather, it still requires supervision by teachers or proctors tasked with overseeing the conduct of summative assessments.

Overall, findings based on observations, interviews, and documentation indicate that the benefits and challenges of implementing smartphone-based summative assessment at MA NW Korleko are interrelated. The greatest benefits experienced by teachers are administrative ease and security features that lighten teachers' workloads and minimize student cheating under ideal conditions. However, the challenges faced such as technical infrastructure, security vulnerabilities, limitations in assessing English proficiency, and classroom management indicate that the effectiveness of smartphone-based assessment at MA NW Korleko depends on the readiness of the infrastructure, the capacity of students' devices, and the quality of the applications used.

D. CONCLUSION

This study explored teachers' perspectives on the effectiveness of smartphone-based summative assessment in measuring students' English proficiency at MA NW Korleko, using triangulated data from observation, interviews, and documentation.

Regarding effectiveness, both teachers agreed that smartphones were administratively effective, as they facilitated question distribution, automatic grading, and real-time score monitoring, features unavailable in paper-based assessment. However, in terms of measuring the four English skills, the application used only accommodated reading and writing, while listening and speaking could not be assessed due to technical limitations. Thus, while effective operationally, the smartphone-based assessment remains limited in comprehensively measuring students' English proficiency.

Regarding accuracy, the findings indicate that results were not entirely reliable. Although the CBT application included anti-cheating features, approximately 30% of students were unable to install the app and instead used Chrome, which lacked these security measures, and some students exploited loopholes by using two devices during the assessment. This suggests that assessment results do not always accurately reflect students' actual English proficiency.

Regarding benefits and challenges, the two were **found to** be interrelated. The main benefits were administrative efficiency and minimal cheating among students who used the app as intended, while the main challenges included unstable infrastructure, uneven student device capabilities, security vulnerabilities, and the app's limited scope in assessing all language skills. Overall, the effectiveness of smartphone-based summative assessment depends heavily on the quality of the application and the readiness of supporting infrastructure.

This study has limitations: it was conducted at only one school and involved only two teachers at MA NW Korleko, since there are only two English teachers at the school; therefore, the findings cannot be generalized. This study also focused solely on teachers' perspectives, not students', who may hold their own views on the use, benefits, and challenges of smartphone-based summative assessment.

Based on these findings, several improvements are recommended. Teachers are advised not to rely solely on technological systems to maintain the integrity of assessments; supervision should be tightened through direct monitoring, particularly for students who access

the assessment via a browser. Teachers should also consider using supplementary assessment tools outside of the application to measure listening and speaking skills that cannot yet be accommodated, so that students' English proficiency can be assessed more comprehensively.

Schools are advised to consider upgrading their technical infrastructure, particularly internet connection stability and the availability of backup devices for students whose devices do not support installation of the application. Schools also need to evaluate the applications they use and consider adopting more comprehensive applications that can assess all four English language skills and feature a security system that cannot be bypassed via a browser.

Future researchers are advised to conduct similar studies with a broader scope, involving more schools and participants, since this study involved only two teachers at a single school and its findings cannot be broadly generalized. Future researchers are also advised to explore the perspectives of students as direct users of smartphone-based assessments and may consider using a mixed-methods approach combining qualitative and quantitative data to produce more comprehensive and generalizable findings.

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