

Revealing Technology-Assisted Feedback: Perspectives from EFL Teachers in Indonesia During the COVID-19 Pandemic

Bitu Dwi Rahmani ¹

¹ English Education Department, University of Muhammadiyah Prof. DR.HAMKA (UHAMKA) Jakarta, Indonesia

Abstract: Technology-assisted feedback has grown in popularity, especially since the COVID-19 pandemic. The learning process, including feedback procedures, has changed as a result of limitations on in-person meetings. At that time, using different digital platforms became the answer. However, not all teachers were ready for these unprecedented changes in feedback practices, especially in Indonesia. Thus, this qualitative study aims to investigate how teachers perceive technology-assisted feedback and how they incorporate it into their classroom feedback procedures. Thirteen experienced Indonesian English as a Foreign Language (EFL) high school teachers were interviewed. Thematic analysis was used to examine the data. The findings show that teachers used a variety of digital platforms, including *Google Drive*, *Google Forms*, *Google Classroom*, *Instagram*, and *WhatsApp* groups, to integrate technology into their feedback practices. This study revealed that teachers were willing to adapt with technology to maintain teacher-students interaction, and promote collaboration. Meanwhile, the use of *Google Drive* could promote peer and dialogic feedback. However, the study also stresses the need for greater institutional support for effective implementation of technology-assisted feedback. Schools should ensure that adequate and reliable infrastructure, reliable and continuous professional development that will strengthen teachers' digital literacy and pedagogy skills.

Keyword: COVID-19 pandemic, Digital Platforms, Teachers' Perception, Technology-assisted Feedback

1. Introduction

The COVID-19 pandemic led to a significant shift in education, as restrictions on face-to-face interaction forced schools and universities worldwide to move to digital platforms [1], [2], [3]. Researchers have highlighted that this sudden shift was not only a simple logistical adjustment but more about the pedagogical practice [4] in which the communication and instructional continuity were highly dependent on platforms like *Zoom*, *Microsoft Teams*, *Google Meet*, *Google Classroom*, *Google Forms*, *Google Drive* and even *social media* [5]. Hence, the use of digital tools is considered a bridge to fill the gap created by physical distancing in learning [3].

Nevertheless, while this rapid transition ensured continuity of learning, it also exposed problems such as inequality in access, a lack of infrastructure, and a lack of teacher digital literacy [6]. Many teachers were unprepared to navigate the technological demands of online instruction, resulting in uneven teaching quality and difficulties in maintaining an effective classroom dynamic. Moreover, the extent of teacher adaptation varied considerably. While some teachers embraced new tools and continuously updated their practices, others struggled to keep pace with the rapid technological demands [7].

Similarly, assessment and feedback practices also shifted substantially. Hattie and Timperley (2007) [8] stated that effective feedback is crucial for student learning, and the pandemic has

accelerated the integration of technology into this process. This aligns with Butler et al. (2008) [9], who further exemplify how video, audio, and computer-assisted tools can provide individualised and formative assessment opportunities that can substitute for the lack of physical presence. Similarly, a study by McPherson and Pearce (2022) [10] revealed that teachers struggled to meet the challenges of teaching online; consequently, they developed alternative formative and summative assessment practices. All these studies indicate that assessment and feedback practices have also shifted due to the COVID-19 pandemic. This shift enabled timeliness and flexibility in assessment and feedback practices, prompting teachers to respond in a variety of formats, often more engaging than traditional written feedback.

In the Indonesian context, teachers experienced major challenges in implementing assessment and feedback practices during the emergency remote learning period. A study by Gozali et al. (2022) [11] on online English Language Teaching (ELT) practices shows that technology was used in instruction but was often poorly integrated with sound pedagogy, particularly in establishing clear expectations and providing prompt feedback, which were seen as crucial yet underdeveloped. More broadly, research in K-12 emergency teaching contexts suggests that teachers found it difficult to provide meaningful feedback in online settings and that heavier workloads posed greater challenges to adapting assessment approaches [12].

However, technology-assisted feedback has significantly enhancing online learning. A recent study by Huang et al. (2025) [13] indicated that the technology-assisted feedback enabled real-time, multi-type feedback, expanded feedback forms and sources and facilitated self-assessment. However, this study has not incorporated teachers' perceptions of the use of technology-assisted feedback in the Asian context, specifically in Indonesia. Therefore, this paper investigated how Indonesian ELT teachers perceived and practised their feedback during the COVID-19 era. The findings of this study offer insights for other teachers on implementing technology in their feedback practice. Building on these perspectives, the research questions guiding this study can be formulated as follows:

1. How did Indonesian ELT teachers perceive and practice their feedback in the COVID-19 era?

2. Methodology

This study investigated teachers' perceptions of technology-assisted feedback using a qualitative approach. This qualitative study enabled a detailed understanding of teachers' experiences, perceptions, and classroom practices [14].

The invitation letter was sent to the teachers' community in three provinces across Jakarta, West Java, and Banten, Indonesia, while convenience sampling was used to recruit participants. However, participants were selected based on specific criteria, including minimum teaching and assessment

training experience. A total of 13 Indonesian EFL high school teachers participated, 4 male and 9 female. Also, it has been identified that six teachers hold bachelor's degrees, four have completed their master's degrees, and two are doctoral holders. However, only four teachers are teaching in junior high schools, while the rest are working as English teachers in senior high schools with at least 5 years of teaching experience.

Data were collected through semi-structured interviews. The interview was audio-recorded for about 30-45 minutes with participants' consent and conducted in Bahasa Indonesia to allow participants to easily express their perceptions of the use of technology in their feedback practice. The probing technique was also used to confirm participants' responses. Meanwhile, the interview process was divided into two sections. The first section asked about participants' demographic information [15], while the second section of the interview was developed and informed by the theoretical conceptualisation of technology that could assist feedback practice.

Once the interview data were collected, they were subsequently transcribed, translated, and analysed using thematic analysis [16]. The thematic analysis was conducted by familiarising with the data through listening and manually transcribing it. The next stage is generating initial codes; this stage is usually called open coding. Once all codes were gathered, the next step was to search for themes through axial coding, categorising similar codes into themes. Next, all the themes were reviewed before naming it into the final themes.

3. Findings and Discussion

This study found that half of the participants (7 out of 13 teachers) used technology-assisted feedback during the COVID-19 pandemic. Several codes were revealed during data analysis, such as *Manual form*, *Google Forms*, *Social Media*, and *Google Drive*. These codes are categorised into the 'tools' themes. Meanwhile, several codes, such as willingness, encouragement, accessibility, and collaboration, appeared and were categorised under teachers' perception themes. The following are the result of data analysis.

Willingness to Adapt

This study revealed that participants admitted they still spend some time delivering feedback but shifted the manual feedback form to an online platform, such as *Google Forms*, as stated in the following transcript.

"Yes, the feedback now is in the *Google form*. I've been teaching for 16 years, I usually use paper, but recently (due to the pandemic) I changed to using Google form". (P11)

"Due to the pandemic, we use *Google Classroom*". (P9)

The teachers expressed their willingness to change the feedback mode from manual paper-based to an online platform using *Google Forms* and *Google Classroom*, even though they have been teaching for almost 20 years. This showed that she has a high level of self-adaptation to the current situation. Similarly, another teacher (P4) admitted that she usually designed two model of feedback manually in paper-based or oral feedback, however, she converted the feedback by incorporating Google Form to gather students' response on her teaching as seen on the following transcript.

"I usually developed two models actually for my student which can be in written or oral feedback too. So in writing, I make it in the form of a rubric questions. Then the students fill it based on their response of these following questions such as: Was today's lesson fun? Then they did check listed. They did this in the face-to-face learning practices. However, in online teaching, I gave them a *Google Form*, then they filled. Therefore, I still got the feedback. I asked such as the questions; Was it fun? If it was fun, which part of learning that was fun. If it's not fun, what's the reason. Then, I asked the student's opinion about the learning which is difficult or how. I gave a rubric like a survey".(P4)

This feedback-shifting practice indicates that teachers were willing to adapt to the changes. As highlighted by a previous study, the use of technology can assist teachers in transitioning smoothly to online teaching practices [17]. Therefore, this study demonstrates that incorporating technology into feedback can effectively support teachers in enhancing their instructional adaptability.

Integration of social media to maintain teacher-student interaction

This study also found that teachers integrated several social media platforms, such as *WhatsApp* and *Instagram*, to maintain two-way interaction between teachers and students amid direct interaction and strict health restrictions. One teacher (P2) expressed that once he had explained the learning material, and the students still did not get the point, he continued the discussion and provided feedback through the *WhatsApp* group. The teacher added that, through this application, he could encourage his students to feel freer to ask questions about the topic under discussion, and he claimed it worked. This finding aligns with a previous study that found that online learning platforms and social media have a positive impact on the interactivity between students and teachers [18]. This positive online learning interaction can effectively reduce students' learning tension and engage students more in learning [19].

Employing Google Drive to promote Peer Feedback

The third online learning tool used by teachers during the COVID era was *Google Drive*, or *GDrive*. Teacher (P3) initiated to encourage her students to submit the writing project to the folder, which is accessible to all students. The teacher expected that all students could read her feedback on other students' projects, as she stated in the following transcript.

Students submit everything digitally; we use *Gdrive*, which is familiar and easy to use. Students upload their works on *Gdrive*, and I opened one and showed it on the projector. I asked everyone to open their work, and this feedback applies to all. I used *Gdrive* in PDF format; I made a notation in the paragraph. There is a note on the right, so I returned it to the students. It's a kind of review box in one file. Now, I set up *Gdrive* so that everyone can be an editor, not only views but also editors. Why do I use *Gdrive*? Because everyone can access the *Gdrive*, with the link, they can see every task. So, they can know each other's work. [P3]

Through that feedback activity, the teacher stated that while she provided individual, timely feedback, she always encouraged her students to see the similar feedback she had given to previous students. Therefore, this feedback mode can save her time, as students would not repeat similar problems they have learned from previous students. In short, by using technology-assisted feedback tools like Google Drive, teachers can provide both classroom and individual feedback. This finding has been supported by previous research indicating that technology could save teachers' time [20] .

The use of social media to promoting student-teacher collaborations

Moreover, this study found that technology-assisted feedback has been shown to support collaboration in teacher-student and/or student-student interactions. This interaction is mainly called dialogic feedback. Teacher (P10) expressed his idea of using social media, such as *Instagram*, for learning. He encouraged his student to comment and create a caption for his posting. Also, students could comment and provide feedback to their peers based on their comments on the caption, as seen in the following transcript:

Some of my students joined me on my *Instagram*. Once, there was a lesson about making Captions. How to make the right caption, so they gave their caption, and I gave feedback to them on how the caption should be. That was one example. Then, we also use the *LMS* [Learning Management System] through *Google Classroom*. I think assessing and then providing feedback [with it] is easier [P10].

The teacher (P10) claimed that this feedback activity facilitated dialogic interaction between the teacher and students, as well as among students. According to Wood (2021) [21], the use of technology-based feedback can foster strong, dialogic classroom interaction, particularly in an online learning environment. To sum up, these studies revealed that technology-assisted feedback could benefit teachers and students, particularly during the COVID-19 pandemic. By employing technology, feedback can still be delivered effectively and foster collaborative learning.

The Need of Support

However, another interesting finding, revealed by a teacher (P1), is that this technology-assisted feedback could benefit them if only the school provides support for teachers, such as training in digital literacy, sufficient internet quota, and other facilities, such as laptops or handphones, that support them in conducting online learning. She added that her school management has already provided these facilities to all teachers, such as training on using the *Learning Management System (LMS)*; therefore,

most teachers at that school felt supported and shifted smoothly from offline to online teaching. This finding aligns with a previous study that underscored that school support was highly effective in contributing to teachers' teaching practice [22]. Therefore, teachers received support from the school which became a significant factor in helping them survive and adapt successfully in these unprecedented circumstances.

4. Conclusion

This study examined teachers' perception on the use of technology-assisted feedback in their teaching practice. The findings revealed that teachers adapted smoothly and demonstrated a willingness to adapt during the challenging Covid-19, which shifted the learning and teaching process from face-to-face to online modes. The use of various digital learning and social media platforms, such as *WhatsApp*, *Instagram*, a *Learning Management System (LMS)*, *Google Forms*, *Google Classroom*, and *Google Drive*, could maintain teacher-student interaction, encourage peer and dialogic feedback, and promote student-teacher collaboration. In other words, these online platforms provided a practical solution for maintaining feedback practice. Students and teachers could interact more flexibly despite physical restrictions..

However, this study also highlights limited school support available to teachers, which constrained their ability to fully implement and optimise technology-assisted feedback in classroom practice. Therefore, this study has an important implication for school stakeholder, suggesting that teachers need support not only in terms of the facilities such as ensure institutional support through reliable internet access and technical assistance, but also through a continuous professional development program to strengthen the effectiveness of feedback practices. Schools should provide structured training to enhance teachers' digital literacy and pedagogical skills, and encourage collaborative practices that promote peer-to-peer and student-teacher feedback practice. Hence, further study is needed to investigate students' perception to capture a more comprehensive picture of the use of technology-assisted feedback and its impact to the students.

5. References

1. Johnson, C. C., Walton, J. B., Strickler, L., & Elliott, J. B. (2023). Online teaching in K-12 education in the United States: A systematic review. *Review of educational research*, 93(3), 353-411.
2. Turnbull, D., Chugh, R., & Luck, J. (2021). Transitioning to E-Learning during the COVID-19 pandemic: How have Higher Education Institutions responded to the challenge? *Education*
3. Tzavara, D. (2021). From Emergency Remote Teaching to Strategically Embracing Online Learning. In H. van't Land, A. Corcoran, & D.-C. Iancu (Eds.), *The Promise of Higher Education: Essays in Honour of 70 Years of IAU* (pp. 249-254). Springer International Publishing. https://doi.org/10.1007/978-3-030-67245-4_39

4. García Gutiérrez, B., Alario-Hoyos, C., Pérez Sanagustín, M., Morales, M., & Jerez, O. (2023). The effects of the COVID-19 pandemic on the digital competence of educators.
5. Bala, R. (2024). Covid-19 Pandemic & post pandemic-technology and education. *Edumania-An International Multidisciplinary Journal*, 2(3), 133-138.
6. Hollister B, Nair P, Hill-Lindsay S and Chukoskie L (2022) Engagement in Online Learning: Student Attitudes and Behavior During COVID-19. *Front. Educ.* 7:851019. <https://doi.org/10.3389/feduc.2022.851019>
7. Duffy, K. A., & O'Neill P, A. (2003). Involving medical students in staff development activities. *Med Teach*, 25(2), 191-194. <https://doi.org/10.1080/0142159031000092616>
8. Hattie, J., & Timperley, H. (2007). The Power of Feedback. *Review of educational research*, 77(1), 81-112. <https://doi.org/10.3102/003465430298487>
9. Butler, M., Pyzdrowski, L., Goodykoontz, A., & Walker, V. (2008). The effects of feedback on online quizzes. *International Journal for Technology in Mathematics Education*, 15(4).
10. McPherson, H., & Pearce, R. (2022). The shifting educational landscape: science teachers' practice during the COVID-19 pandemic through an activity theory lens. *Disciplinary and Interdisciplinary Science Education Research*, 4(1), 19. <https://doi.org/10.1186/s43031-022-00061-2>
11. Gozali, I., Istiqomah, F., & Widiati, U. (2022). A systematic review of online ELT research in Indonesia during the COVID-19 pandemic through the community of inquiry framework. *Journal of Information Technology Education: Research*, 21, 501-546.
12. Al Mazrooei, A. K., Hatem Almaki, S., Gunda, M., Alnoor, A., & Manji Sulaiman, S. (2022). A systematic review of K–12 education responses to emergency remote teaching during the COVID-19 pandemic. *International Review of Education*, 68(6), 811-841.
13. Huang, W., Stephens, J. M., & Brown, G. T. L. (2025). Feedback assisted by technology: A systematic review of empirical research. *INTERNATIONAL JOURNAL OF TECHNOLOGY IN EDUCATION*, 8(2), 421-444.
14. Given, L. M. (2015). *100 questions (and answers) about qualitative research*. SAGE publications.
15. Arrafii, M. A. (2020). *Towards formative assessment: Exploring English teachers' conceptions and practices of assessment In Indonesia* [Doctoral dissertation, University of Leicester]. <https://doi.org/10.25392/leicester.data.13293359.v>
16. Braun, V., & Clarke, V. (2021). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative Research in Psychology*, 18(3), 328-352. <https://doi.org/10.1080/14780887.2020.1769238>

17. Wang, S., Bajwa, N. P., Tong, R., & Kelly, H. (2020). Transitioning to online teaching. In *Radical solutions for education in a crisis context: COVID-19 as an opportunity for global learning* (pp. 177-188). Singapore: Springer Singapore
18. Alismaiel, O. A., Cifuentes-Faura, J., & Al-Rahmi, W. M. (2022). Online Learning, Mobile Learning, and Social Media Technologies: An Empirical Study on Constructivism Theory during the COVID-19 Pandemic. *Sustainability*, 14(18), 11134. <https://doi.org/10.3390/su141811134>
19. Ong, S.G.T., Quek, G.C.L. Enhancing teacher–student interactions and student online engagement in an online learning environment. *Learning Environ Res* 26, 681–707 (2023). <https://doi.org/10.1007/s10984-022-09447-5>
20. Selwood, I., & Pilkington, R. (2005). Teacher workload: using ICT to release time to teach. *Educational Review*, 57(2), 163–174. <https://doi.org/10.1080/0013191042000308341>
21. Wood, J. (2021). A dialogic technology-mediated model of feedback uptake and literacy. *Assessment & Evaluation in Higher Education*, 46(8), 1173–1190. <https://doi.org/10.1080/02602938.2020.1852174>
22. Gümüş, S., Tan, C. Y., Gao, L., & Walker, A. (2026). Empowering Schools in Times of Crisis: A Systematic Review of Leadership Practices During and After the COVID-19 Pandemic. *EUROPEAN JOURNAL OF EDUCATION*, 61(3), e70759. <https://doi.org/https://doi.org/10.1111/ejed.70759>

