

## Reflection in Pixels: Scrutinizing Students' Perspectives on Digital Reflective Journals

**Dea Silvani**

Universitas Siliwangi

[dea.silvani@unsil.ac.id](mailto:dea.silvani@unsil.ac.id)

**Santiana Santiana**

Universitas Siliwangi

[santiana@unsil.ac.id](mailto:santiana@unsil.ac.id)

**Sitti Syakira**

Universitas Siliwangi

[sitti.syakira@unsil.ac.id](mailto:sitti.syakira@unsil.ac.id)

**Corresponding email:** [santiana@unsil.ac.id](mailto:santiana@unsil.ac.id)

### Abstract

Reflection plays an important role in language learning. Through reflection, students are encouraged to learn how to learn to acquire deeper learning. This study investigates students' perceptions of digital reflective journals as a means of reflective practice in their ESP classroom. This study involved 45 students who enrolled in a Business English class where they were required to write reflective journals digitally at the end of the teaching and learning process. This study used questionnaires and semi-structured interviews as the instruments to collect the data. The quantitative data from the questionnaire were analysed with the assistance of SPSS to examine the frequency of students' responses to each statement listed on the questionnaire. Meanwhile, the qualitative data from semi-structured interviews were analysed through the steps of data condensation, data display, and conclusion. The findings of this study revealed that students admitted to the beneficial roles of digital reflective journals. It helped them raise their self-awareness, and develop their critical and problem-solving skills. Besides, they also assumed that writing reflective journals digitally was more convenient because it offered ease of access and flexibility. Therefore, digital reflective journals can serve as valuable tools to improve the quality of language learning that can be considered to be utilized in language classrooms.

**Keywords:** digital reflective journal, learning reflection, students' perceptions

**Introduction**

In the EFL classroom, the teachers need to enable the students to participate in their language learning journey actively (Santiana, et al., 2021; Santiana, et al., 2023). In this case, reflection plays an important role in deeper learning and honing students' problem-solving abilities (Lain & Land, 2009; Widya, et al., 2020). By reflecting on learning, students are encouraged to recall the materials and interpret the learning experiences that have been carried out. In this regard, Fullana, et al (2016) state that reflective learning is the practice of rethinking all sources of knowledge, including personal sources and experiences, to understand a situation. According to Pavlovich (2007), reflective learning is more about how a student understands the subject matter than about the conclusions or resolutions that students get after learning something. Therefore, in the process, students are asked to rethink their learning experiences to construct an understanding of the learning material that has been provided. Additionally, Heyler (2015) argues that reflection is comprehensive and involves more than just remembering the past. Individuals naturally rethink their experiences to understand what has happened. What is emphasized in this process is the concept of learning from the past, especially efforts to avoid repeating mistakes. Through reflection activities, students can identify weaknesses and problems faced during the learning process, and then look for the best solutions to overcome these problems to improve the quality of their learning.

Furthermore, reflective learning encourages deeper learning and offers a relevant framework for professional development for students who will be lifelong learners and committed to the continuous improvement of their practice (Henderson, Napan, & Monteiro, 2004). In other words, through reflective learning, students can improve the quality of learning over time by identifying their strengths and weaknesses, so that they can gain a better understanding of the learning material and themselves. Therefore, it is

hoped that through learning reflection students can obtain better learning outcomes (Fatimah & Santiana, 2017).

One of the strategies that can be implemented to foster learning reflection is by using a reflective journal. According to Alt et al. (2021), an example of an active learning approach that aims to foster higher-order reasoning abilities is the reflective journal, which is also known as learning journals/diaries or learning/response logs. In addition, reflective journal writing is an educational technique in which teachers prompt students to document their experiences and perceptions of a certain class or class activity (Baresh, 2022).

This phenomenon is also found among students in a Business English class in the English Language Education department at a university in West Java, Indonesia were mandated to write a reflective journal at the end of each topic being discussed in the classroom. They are prompted to review the content that has been covered by summarizing their comprehension of the subject by filling in the digital reflective journals through various digital platforms used interchangeably by the lecturer such as Google Form, Google Classroom, Idea Boardz, and Padlet. To address issues encountered in the teaching and learning process, they are also required to assess their own learning areas of strength and weakness. The lecturer then gave them feedback both in oral and written forms to address students' issues found in their reflective journals.

Numerous studies have investigated the roles of journal writing in the teaching and learning process. Some studies utilized journal writing to improve students' writing skills (Baresh et al., 2022; Pham et al., 2022; Wahyuningsih, 2019; Novariana et al., 2018). Besides, other studies also highlighted the role of reflective journals in promoting teachers' professional development (Ciroki & Widodo, 2019; Dumlao et al., 2019). However, less is known about students' perspectives regarding the use of digital reflective journals in higher education contexts. Therefore, to fill the void, the research

question of this study is formulated as “What are students' perceptions of the use of digital reflective journals in ESP classrooms?”.

### **Research Methodology**

This study employed a descriptive research design to obtain detailed information related to the students' perceptions of digital reflective journals in their ESP class. This study took place in a Business English Class as an elective course in the 4<sup>th</sup> semester offered by the English Education Department of a University located In Tasikmalaya, West Java, Indonesia. 45 students (36 female students and 9 male students) were involved as participants in this study. They were the fourth-semester students who enrolled in the Business English Class in the academic year of 2022/2023. Their ages ranged between 20-22 years old. During the teaching and learning process, they were required to fill in the reflective journals digitally, which files in the form of Word files were submitted to Google Classroom at the end of each learning topic.

This study employed a questionnaire and semi-structured interview as the instruments to collect the data. The questionnaire consisted of 20 statements that should be responded to by the participants by checking one of the four Likert scales ranging from 1-4 (1= Strongly Disagree, 2= Disagree, 3= Agree, and 4= Strongly Agree). Following the completion of the data collection process, the responses obtained from the questionnaire were input into the Statistical Package for the Social Sciences (SPSS) software to facilitate analysis. The analysis procedure encompassed multiple sequential stages. The initial step involved importing the data into SPSS, to ensure precision in both data entry and organization. Subsequently, a frequency analysis was performed to investigate the distribution of responses for each statement included in the questionnaire pertaining to students' perceptions of digital reflective journals in Business English class. After the analysis process, the data were displayed in the form of a table. In addition, the researchers also interviewed 6 selected students who were chosen

randomly as a representative of each group in Business English Class, to confirm and obtain further information related to their perceptions. The qualitative data from the interview were analysed thematically by using a framework proposed by Miles et al. (2014), which involved the steps of data condensation, data display, and drawing conclusions and verification. At the initial stage, the raw interview transcripts underwent a process of data condensation to transform them into more manageable components. Following this, the condensed data were systematically arranged and presented to identify reoccurring themes and patterns. Finally, the analysis of these topics revealed significant findings about students' perceptions of digital reflective journals in Business English class.

## Findings and Discussion

### Findings

This study aims to investigate students' perceptions of the use of digital reflective journals especially in their ESP classroom. The following are the results of the questionnaire and semi-structured interviews which revealed their perceptions based on their experiences while writing reflective journals digitally in the Business English Class.

**Table 1:** The questionnaire results of students' perceptions of digital reflective journals

No	Statement	Frequency (%)			
		SA	A	D	SD
1.	The digital reflective journal enhances my understanding of the course material.	60,7	30,6	8,7	0
2.	Using digital reflective journals helps me organize my thoughts and ideas more effectively.	45,9	49,8	4,3	0
3.	The digital reflective journal encourages me to reflect more on my language learning experiences.	45,5	54,5	0	0
4.	I find it easy to navigate and use the digital platform for the reflective journal.	66,3	29,4	4,3	0
5.	Integrating a digital reflective journal positively impacts my engagement with the course content.	70,9	24,8	4,3	0
6.	The digital reflective journal helps me connect theoretical knowledge with practical applications in my field of study.	43,5	56,5	0	0
7.	I feel that using digital reflective journals improves my	70,6	29,4	0	0

No	Statement	Frequency (%)			
		SA	A	D	SD
	critical thinking skills.				
8.	The digital reflective journal encourages me to set and track my language learning goals.	54,2	45,8	0	0
9.	The digital reflective journal motivates me to actively participate in the learning activities.	32,8	58,5	4,3	4,3
10.	The digital reflective journal makes me more aware of my strengths and weaknesses in the learning process.	44,5	55,5	0	0
11.	The digital reflective journal helps me identify areas for improvement in my language skills.	66,3	29,4	4,3	0
12.	I can easily access the reflective journal using the digital platform.	75,3	20,4	4,3	0
13.	The digital reflective journal encourages me to review and revise my work to improve my language skills.	47,9	47,8	4,3	0
14.	I felt more accountable for my learning progress through the digital reflective journal.	63,9	27,4	8,7	0
15.	Filling in the digital reflective journal helps me monitor my learning progress.	62,9	37,1	0	0
16.	I feel that using a digital reflective journal enhances my self-awareness of language learning strategies that work best for me.	64,5	35,5	0	0
17.	The use of digital reflective journals positively influenced my overall learning experience in my class.	23,5	32,1	4,3	4,3
18.	I would choose a digital reflective journal over the traditional paper-based journal for future courses.	76,2	23,8	0	0
19.	I would recommend the use of digital reflective journals to other courses.	53,9	37,4	8,7	0
20.	The digital reflective journal should be incorporated into more aspects of language learning (e.g. assessments, assignments, etc)	72,9	22,7	4,3	0

The frequency trend of the responses to the questionnaire indicates that the utilization of digital reflective journals in language learning is generally favourable. A significant proportion of students expressed agreement or strong agreement regarding the beneficial effects of digital reflective journals on their language acquisition. Across the various statements in the survey, the percentages for agreement and strong agreement ranged from 32.8% to 76.2% and 23.8% to 58.5%, respectively. A mere fraction of the statements elicited disagreement or strong disagreement, with percentages varying from 0% to 8.7% for disagreement and 0% for strong disagreement. Consequently, the frequency trend indicates that the majority of students consider digital reflective journals to be an advantageous instrument for enhancing their language skills.

In this case, most students indicated that the platform facilitated their comprehension of the course material (91,3%), enhanced their ability to structure their thoughts and ideas (95,7%), and encouraged deeper contemplation of their language learning experiences (100%).

Another important finding is that digital reflective journals are recognized as a tool that encourages students to contemplate not just their language learning experiences but also their personal strengths, shortcomings, and learning strategies. Significantly, all of the students highlighted the crucial functions of digital reflective journals in cultivating critical thinking (100%) and problem-solving skills (100%). Students expressed that using the digital platform allowed them to engage in a more profound degree of introspection (95,7%), enabling them to scrutinize and assess their language learning experiences (91,4%) in a critical manner.

More specifically, a significant pattern that surfaced from the data is the increased level of self-awareness (100%) indicated by the participants. It is also reflected in the results of the interview, such as provided in excerpt 1 below:

*Excerpt 1*

*Through writing digital reflective journals, I know myself more. I know what I can do best and what I need to improve in my learning. It makes me more critical of my own learning.*

From excerpt 1, it can be inferred that students admitted that writing reflective journals helped them know themselves more as they were more aware of their strengths and weaknesses. This finding is also supported by the results of the questionnaire where all of the students (100%) echoed the same opinion regarding this point. Students were also given the opportunity to monitor their learning progress (91,3%) by identifying areas for improvement (95,7%), especially in terms of their language learning. By doing so, they can set the best strategies that work best to improve their own learning (100%).

In this regard, writing digital reflective journals also encouraged them to improve their critical thinking skills (100%), as they were required to identify their learning problems and find the best solutions to address those issues (100%). This led to the growth of willingness to evaluate their work and/or performance to improve their language proficiency (95,7%). As a result, writing digital reflective journals also encouraged them to develop their problem-solving skills (This finding is also supported by the interview result as presented in Excerpt 2 below:

Excerpt 2:

*Writing digital reflective journals trains me to be more critical and solve the problems or challenges I face during the teaching and learning process. I need to find the best strategies to overcome my own problems.*

The statement above suggests that reflective journals had a positive impact on the student's ability to think critically and address challenges encountered in the teaching and learning process. It indicates that the students understand the value of coming up with practical solutions to problems. It involves more than simply problem identification; it also entails creating and putting into practice well-considered solutions. This demonstrates a degree of proactive problem-solving and strategic thinking.

Additionally, the findings of this study also confirmed the beneficial roles of journal writing to improve students' language skills. During the interview, one of the participants of this study asserted that the digital reflective journals could positively impact her language proficiency, as can be seen in excerpt 3:

Excerpt 3

*Somehow, I think writing a digital reflective journal helps me develop my language skills. I mean by reflecting on my own performance during the teaching and learning process, I can identify what aspect I need to work on to improve my language proficiency.*

The student in excerpt 3 claimed that keeping a digital reflective journal is crucial for enhancing his language proficiency. He emphasized the



correlation between self-evaluation in teaching and learning situations and the capacity to identify particular areas that require improvement for enhancing language proficiency. Engaging in self-reflection through a digital journal is considered a valuable approach for self-directed language learning. It allows individuals to get insights into their personal strengths and shortcomings and helps them focus their efforts on addressing specific language skill development needs.

In addition, students perceived the digital platform as user-friendly and intuitive (95,7%), which had a beneficial effect on their level of involvement with the course material. Additionally, they expressed a heightened sense of responsibility regarding their educational advancement and regarded the platform as beneficial for tracking their progress (91,3%).

In general, the results indicate that the digital reflective journal serves as a beneficial instrument for individuals acquiring a new language and advocating for its integration to a greater extent. For future courses, the majority of students would prefer to use a digital reflective journal as opposed to a traditional paper-based journal (100%), and they would also recommend the use of digital reflective journals to other instructors (91,3%). This emphasizes the prospective benefits that technology can provide to language learners as well as the significance of integrating technology into the learning process.

## **Discussion**

Building upon the viewpoints of the participants, it became clear that the advantages of digital reflective journals went beyond the immediate academic setting. The correlation between the acquisition of critical thinking skills and the participants' aptitude for integrating theoretical information with practical applications in their respective areas of study was often observed. It implies that the act of creating reflective journals,

especially in a digital format, aids in the growth and improvement of the student's critical thinking abilities (Xhaferi and Xhaferi, 2017). According to Nicol and Dosser (2016), critical thinking gives one the information and comprehension needed to make judgments about an experience, learn from it, and create an action plan for subsequent practice. Analyzing experiences, recognizing significant insights, and assessing one's own ideas and deeds are common tasks in reflective writing. Moreover, reflection involves actively solving challenges in addition to critical thinking. The students view it as a tool for problem-solving within the framework of their educational experiences.

The digital platform promoted both a sophisticated analysis of course contents and the practical application of gained information to real-life situations. Additionally, it seems that reflection strengthens professional values, improves attitudes and eases students' exploration of challenging material, and improves the understanding of complex subjects (Chang, 2019; van Velzen, 2016; Winkel, 2017). Additionally, according to Helyer (2015), students who engage in reflection will eventually become adept at realizing that they are always learning and developing continuous skills through reflection. The combination of theory and practice in this study demonstrates the adaptability of digital reflective journals in fostering a comprehensive comprehension of the subject matter.

Furthermore, it was observed that the good impact on self-awareness has consequences for both personal and professional development. As Loughran (2002) mentioned as practitioners expand their understanding of practice by reevaluating what they have learned, reflection is consistently recommended as a means of assisting them in understanding what they know and do better. It helps practitioners become more self-aware, perceive things clearly, and make the best decisions possible (Johns, 2009; Yaffe, 2010). For those who view professional development as a partial liberation of learning by practice, reflection is crucial and equally valuable

regardless of the profession. As for the students, it has the cumulative impact of helping students to develop a self-narrative. Participating in this practice regularly starts to recognize the trends, patterns, and advancements in students' own learning process. These narratives turn into a useful tool for comprehending personal growth, areas of stability, and aspects that might need further development. It is in line with Branch (2010) who claims that reflection on the narratives enhances mindfulness and self-awareness. It addresses the students to validate their humanistic learning while alternating their experiential learning.

The result indicates that writing reflective journals helps students to see their areas of strength and growth. It suggests making a deliberate effort to evaluate and comprehend their own strengths and weaknesses during the learning process. Additionally, participants conveyed that the digital reflective notebook motivated them to not only recognise their strengths and faults but also to strive for enhancement actively. According to Levine et al. (2008), reflection fulfilled a variety of purposes, including providing a platform for emotional expression, a means of defining learning objectives, and an inspiration to do better (Chang, 2019). The proactive nature of this self-improvement method demonstrates how the digital platform may effectively cultivate a growth attitude among pupils. The utilization of a digital journal seems to enable students to assume responsibility for their learning process, establishing them as engaged contributors in their academic and personal growth.

Reflective writing involves a purposeful and careful analysis of one's experiences, ideas, and deeds. Bolton (2014) agrees that critical reflection on experiences facilitates inquiry into ideas, feelings, attitudes, and values as well as the exploration of challenging circumstances. Students who participate in this process are encouraged to examine and evaluate their own ideas and actions more methodically. Through this process, students can also frequently go back over and investigate their individual learning experiences. According to Wain (2017) and Chang (2019), the process of

looking back and drawing lessons from past events to influence present and future actions is referred to as reflection-on-action. This can include particular instances, difficulties encountered, accomplishments made, or even periods of uncertainty. By recording and contemplating these encounters, students acquire a more sophisticated comprehension of how they maneuver through their learning process. Additionally, it is noted that writing reflectively fosters a more critical sense of self-evaluation. A more purposeful and successful learning journey may result from the students' increased ability to detect and analyze their own learning experiences (Kolb, 1984; Winitzky, 1992). Hence, the process of writing digital reflective journals is an active and contemplative practice. It entails actively investigating and evaluating one's own ideas, behaviours, attitudes and responses in addition to recording experiences. By using this reflective activity during the learning process, students can gain a deeper grasp of who they are in the context of their learning experiences, which is a major contribution to self-discovery.

To summarize, the results emphasize the crucial function of digital reflective journals in influencing not just academic achievements but also the wider cognitive and self-awareness aspects of the learner. The positive tendencies in the advancement of critical thinking and self-awareness provide useful insights into the effectiveness of digital tools in higher education. The diverse advantages shown in this research have significant implications for educators, curriculum developers, and institutions aiming to improve the overall learning process and provide students with vital skills for success in a changing academic and professional environment.

### **Conclusion and Suggestion**

This study aims to scrutinize the students' perceptions of the use of digital reflective journals in their ESP course, especially in Business English Class. The results of the questionnaire and semi-structured interview generally indicated that in general, students perceived the use of digital

reflective journals positively. They believed that digital reflective journals play some beneficial roles in their own learning. It promoted the development of their self-awareness, critical thinking, and problem-solving skills, as they were required to identify their strengths and weaknesses while learning certain topics. Besides, it also helped them improve their language skills, especially writing skills, as they were required to write consistently through filling in the digital reflective journal. In terms of their cognitive development, digital reflective journals also helped the students acquire a better comprehension of the learning materials since they had to express their own understanding by summarizing what they had learned in the classroom. Besides, they also preferred to write the reflective journals digitally compared to traditional paper and pen writing. They assumed that it was more convenient for them because it was easier to access and enabled them to write it anywhere and anytime. To conclude, digital reflective journals play a crucial role in facilitating the reflective learning process through the utilization of technology. Amidst the prevalence of digital tools in education, digital reflective journals offer students a dynamic platform to express and record their language learning experiences. Regarding this finding, further research is suggested to investigate the dimensions of aspects reflected by the students in their digital reflective journals. It is also important to conduct further investigation into the efficacy of digital reflective journals as alternative assessments in EFL Classrooms.

## References

- Alt, D., Raichel, N., & Naamati-Schneider, L. (2022). Higher education students' reflective journal writing and lifelong learning skills: insights from an exploratory sequential study. *Frontiers in Psychology*, 12, 707168. DOI: <https://doi.org/10.3389/fpsyg.2021.707168>
- Baresh, E. F. (2022). Developing Libyan undergraduates' writing skills through reflective journaling: A critical literature review. *Journal of English Language Teaching and Learning*, 3(1), 27-35. DOI: <https://doi.org/10.33365/jeltl.v3i1.1835>
- Bolton G. (2014). *Reflective practice: Writing and professional development* (4th ed). London: SAGE Publications

- Fatimah, A. S., & Santiana, S. (2017). Teaching in 21st century: Students-teachers' perceptions of technology use in the classroom. *Script Journal: Journal of Linguistic and English Teaching*, 2(2), 125. DOI: <http://dx.doi.org/10.24903/sj.v2i2.132>
- Fullana, J., Pallisera, M., Colomer, J., Fernández Peña, R., & Pérez-Burriel, M. (2016). Reflective learning in higher education: A qualitative study on students' perceptions. *Studies in Higher Education*, 41(6), 1008–1022. DOI: <https://doi.org/10.1080/03075079.2014.950563>
- Henderson, K., Napan, K., & Monteiro, S. (2004). Encouraging reflective learning: An online challenge. In *Beyond the comfort zone: Proceedings of the 21st ASCILITE Conference* (357-364).
- Helyer, R. (2015). Learning through reflection: The critical role of reflection in work-based learning (WBL). *Journal of Work-Applied Management*, 7(1), 15-27. DOI: <https://doi.org/10.1108/JWAM-10-2015-003>
- Helyer, R., & Kay, J. (2015). Building capabilities for your future. In Helyer, R. (Ed.), *The Workbased learning student handbook* (2nd ed). 31-50. Palgrave.
- Johns, C. (2009). *Model of structured reflection*. John Wiley & Sons.
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development* (Vol. 1). Englewood Cliffs, NJ: Prentice-Hall.
- Lai, T. L., & Land, S. M. (2009). Supporting reflection in online learning environments. *Educational media and technology yearbook*, 141-154. DOI: [10.1007/978-0-387-09675-9\\_9](https://doi.org/10.1007/978-0-387-09675-9_9)
- Levine, R. B., Kern, D. E., & Wright, S. M. (2008). The impact of prompted narrative writing during internship on reflective practice: a qualitative study. *Advances in health sciences education*, 13, 723-733. DOI: <https://doi.org/10.1007/s10459-007-9079-x>
- Nicol J, & Dosser I. (2016). Understanding Reflective Practice. *Nurs Stand* 30(36): 34-42. DOI: <http://doi.org/10.7748/ns.30.36.34.s44>
- Pavlovich, K. (2007). The development of reflective practice through student journals. *Higher Education Research and Development*, 26 (3), 281–295. DOI: <https://doi.org/10.1080/07294360701494302>
- Pham, V. P. H., Tran, T. T. T., & Nguyen, N. H. V. (2022). The effects of extensive journal writing on the Vietnamese high-school students' writing accuracy and fluency. *Journal of Language and Education*, 8(1), 116-129. DOI: <https://doi.org/10.17323/jle.2022.12361>
- Santiana, S., Silvani, D., & Ruslan, R. (2021). Optimizing LMS CANVAS for interactive online learning perceived by the students. *Journal of English Education and Teaching*, 5(4), 529-543. DOI: <https://doi.org/10.33369/jeet.5.4.529-543>.
- Santiana, S., Faisal, R. F., & Sri, M. (2023). An insight into blog use in EFL reading class. *Training*, 1(2), 3. DOI: <https://doi.org/10.32851/ijebp.v7n1.p132-150>.
- Van Velzen, J. (2015). *Metacognitive learning*. New York, NY: Springer International Publishing.

- Wahyuningsih, E. (2019). Promoting reflective journal as an approach to enhancing EFL students' writing skills. *CLLiENT (Culture, Literature, Linguistics, and English Teaching)*, 1(1), 95-110. DOI: <https://doi.org/10.32699/cllient.v1i01.669>
- Widya, T., Fatimah, A. S., & Santiana, S. (2020). Students feedback as a Tool for Reflection: A Narrative Inquiry of an Indonesian pre-service teacher. *Tlemc (Teaching and Learning English in Multicultural Contexts)*, 4(1), 1-11. DOI: <https://doi.org/10.37058/tlemc.v4i1.1775>
- Winitzky, N. (1992). Structure and process in thinking about classroom management: An exploratory study of prospective teachers. *Teaching and Teacher Education*, 8(1), 1-14. DOI: [https://doi.org/10.1016/0742-051X\(92\)90036-3](https://doi.org/10.1016/0742-051X(92)90036-3)
- Yaffe, E. (2010). The reflective beginner: Using theory and practice to facilitate reflection among newly qualified teachers. *Reflective Practice*, 11(3), 381-391. DOI: <https://doi.org/10.1080/14623943.2010.490070>