Investigating the Impact of PearDeck on Writing Instruction for English Major Students at Hanoi University of Industry

Le Thu Huong[1], Doan Quang Dung[2*]

[1]School of Languages & Tourism – Hanoi University of Industry, Hanoi, Vietnam
[*]Corresponding author's email: dungdq@haui.edu.vn
[*] https://orcid.org/0009-0009-0022-3523
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ABSTRACT

The incorporation of technology in English learning has become the norm in recent decades. While research on the effectiveness of technology in education is abundant, few studies mention the application of PearDeck in writing education in Vietnam. This research examines the perceptions of PearDeck's effectiveness in teaching writing skills to English major students at Hanoi University of Industry (HaUI). This study collected data from 20 English-majored students at HaUI. The study adopts a mixed-methods approach to examine the impact of Pear Deck on various aspects of writing proficiency. Quantitative analysis involves questionnaires to measure changes in writing performance, while qualitative data is collected through interviews to gather insights into student experiences. The results show a favorable attitude towards PearDeck and its potential to facilitate writing instructions, contributing to the growing body of literature on technology-enhanced classroom instruction.

Introduction

Writing is viewed as a vital skill in the English learning journey. Being proficient in writing skills helps learners achieve academic and professional success. Following the COVID-19 pandemic, the use of technology in foreign language teaching and learning has increased due to its convenience and efficiency (Do et al., 2024). As technology continues to progress, so does the need to integrate it into education. Digital platforms and applications have played a critical role in fostering collaborative learning, providing instant feedback, and delivering personalized instruction (Ha, 2024).

The PearDeck website was founded in 2014 and is an interactive online learning platform. It is defined as *"a powerful ecosystem of education tools that assess progress, offer real-time feedback, and provide the differentiated instruction and gamified practice that keeps students*

engaged and excelling." Additionally, PearDeck is a virtual student response system that enables educators to test the understanding of each student while tracking their progress by handing online assignments (Awedh et al., 2014, as cited by Anggoro & Khasanah, 2022). As stated on the main website (PearDeck Learning, n.d.), PearDeck aims to provide products that can integrate pedagogical strategies into lessons to facilitate the instructional process in any given topic. Thanks to this feature, students could later thrive in their learning journeys.

Angulo (2023) suggests that checking what students have to do with a class activity is just as important as the actual teaching process, making teachers aware that the students' performance of class activities can be improved by familiarizing themselves with different ways an activity can be executed. Written instructions are crucial for engaging students and guiding classroom activities (Ha & Wanphet, 2016).

The study investigates what English-major students at Hanoi University of Industry think about the application of technological platforms, specifically PearDeck, in teaching writing skills. A mixed-methods approach, including a questionnaire and interviews, is used to evaluate students' perceptions of the platform's effectiveness and contribute further to existing studies on writing instructions.

Literature review

Writing instruction is a vital part of the curriculum for English-major students, especially for non-native English-speaking countries - Vietnam is no exception (Lan, 2023). To teach writing skills effectively, a teacher needs not only a solid understanding of language mechanics but also the ability to convey ideas clearly and persuasively. Given that both teaching and learning styles are constantly evolving, conventional methods for teaching writing skills may not be sufficient to fully engage students in lessons or address their needs (Hyland, 2003). Hence, Ferris & Hedcock (2014) suggested that collaborative and interactive approaches to writing instruction are more likely to be efficacious in developing students' writing skills. Moreover, educators can utilize these digital platforms, including videos and various animation styles, to tailor their lessons to learners' distinct learning styles and different cognitive levels (Madden et al., 2025).

Interactive presentation platforms have seen widespread application in modern education as a dynamic tool to enhance student engagement and participation. Belland, Kim, and Hannafin (2013) reported that interactive tools are beneficial due to their ability to provide immediate feedback and offer students the opportunity for better self-assessment.

PearDeck has proven valuable in enhancing students' engagement and achieving expected learning outcomes in various educational settings. As stated by Anggoro (2020) and Haryani and Ayuningtyas (2021), the application of Pear Deck in classrooms was useful for both face-to-face and virtual instruction, especially during the COVID-19 pandemic. The platform's advantages include accessibility, real-time response functions, and session review features, which enhance significant and active learning experiences (Anggoro, 2020; Haryani & Ayuningtyas, 2021). Roqobih and Astriani (2024) indicated considerable improvements in learning outcomes when using PearDeck, with students showing moderate to high boosts in test scores. Furthermore, PearDeck is believed to support independent learning by permitting students to access interactive slides at their own pace while enabling teacher supervision (Anggoro & Khasanah, 2022). Despite certain constraints, PearDeck's ability to enhance student engagement and achievement makes it a valuable tool for educators across diverse fields. (Anggoro, 2020; Roqobih & Astriani, 2024).

PearDeck is also known for its ability to make the writing instruction process more participatory for learners. Supposed teachers are able to incorporate activities via the platform that require students to apply writing techniques they have learnt in real-time; these educators can deliver instant feedback and tailor their instructions to address the mistakes or needs of each student. This approach aligns with Vygotsky's (1978) theory of social constructivism, which posits that learning is a social process and that interaction plays a crucial role in the development of higher cognitive functions in learners.

Another aspect of the PearDeck platform worth considering is its alignment with the student-centered approach to teaching writing, which emphasizes active learning and collaboration among learners. Warschauer (2010) indicated that integrating technology into writing instruction will likely offer learners more opportunities to be exposed to interactive learning environments. As a result, the usage of online writing platforms in general and responsive tools in particular can enhance peer feedback, collaborative writing, and instant editing, all of which are critical parts of efficient writing instruction (Graham & Perin, 2007). Students can provide their answers to the questions on the interactive slide, and teachers can concurrently check the students' answers through their own dashboard or display the students' answers anonymously while offering verbal feedback (Sengsri & Anggoro, 2021).

While research on the effects of PearDeck on writing education is scarce in Vietnam, existing studies on interactive platforms often concentrate on several valuable insights. A small-scale research study conducted by Hung, Hwang, and Huang (2012) revealed that the implementation of interactive digital tools in language instruction resulted in significant improvements in students' writing output, particularly in terms of organization, coherence, and language ability. Likewise, Lee and Heinz (2017) suggested that digital-based writing instruction might improve students' critical thinking and self-regulation abilities, thereby fostering effective writing skills.

For English-major students at Hanoi University of Industry, PearDeck presents a promising alternative to traditional writing instruction by making lessons more interactive and student-centered. Students will have the opportunity to engage in activities that require applying writing concepts in practice and receive immediate feedback. As such, examining the potential impact of PearDeck on writing instruction may yield insights into how effective interactive online learning platforms are in enhancing the writing abilities of English-major students.

Research Questions

This article aims to answer the following questions about the impact of PearDeck on the writing skills of university-level students:

1. What are the perceptions of students on Peardeck in facilitating English majors' improvement of their writing skills?
2. Which aspects of writing skills do students see as the most obvious improvement?

Methods

Pedagogical Setting & Participants

The study was conducted at the Faculty of English Language, School of Languages and Tourism, Hanoi University of Industry, during the first semester of the 2024-2025 academic year. 20 English-majored students were involved in this research. Most of them were sophomores, who were at the B1 level of English proficiency (according to the Common European Framework of Reference for Languages - CEFR).

Design of the Study

This study employed a quantitative approach, specifically a questionnaire, to investigate the effectiveness of Duolingo in developing speaking skills compared to traditional classroom instruction. This approach is chosen because the collected data could be easily obtained and represented as numbers, contributing to the empirical foundation of this article. Additionally, a qualitative survey was adopted in this study. According to Mill and Gray (2012), the primary purpose of a survey is to examine the attitudes, behaviors, concerns, and preferences of a group of residents. This approach aligned well with the study objectives, as it enabled the exploration of preferences and attitudes among a varied population, delivering a detailed snapshot of the topic at a given time.

Data collection and analysis

A survey was conducted to gather quantitative data from students, focusing on their perceptions of PearDeck's effectiveness in teaching writing skills during the first semester of the 2024-2025 school year. The survey is designed with Likert-scale questions to assess the effectiveness, engagement, and specific areas of writing that have improved (e.g., grammar, coherence, organization). It is adopted from Kirkpatrick's Four-Level Training Evaluation Model, which included four levels:

a. **Reaction:** Measure participants' initial reactions to PearDeck (e.g., satisfaction, engagement).
b. **Learning:** Assess the improvement in students' writing skills.
c. **Behavior:** Observe changes in students' writing practices or behaviors.
d. **Results:** Evaluate the overall impact on student performance and achievement.

Students were then interviewed to provide more detailed, qualitative information about their thoughts and experiences with using PearDeck in writing education. This interview enables a more thorough examination of writing factors that have improved, as well as PearDeck's efficacy. Five students will be randomly chosen to respond to interview questions.

Survey results

Figure 1.

Participants' reactions to PearDeck.
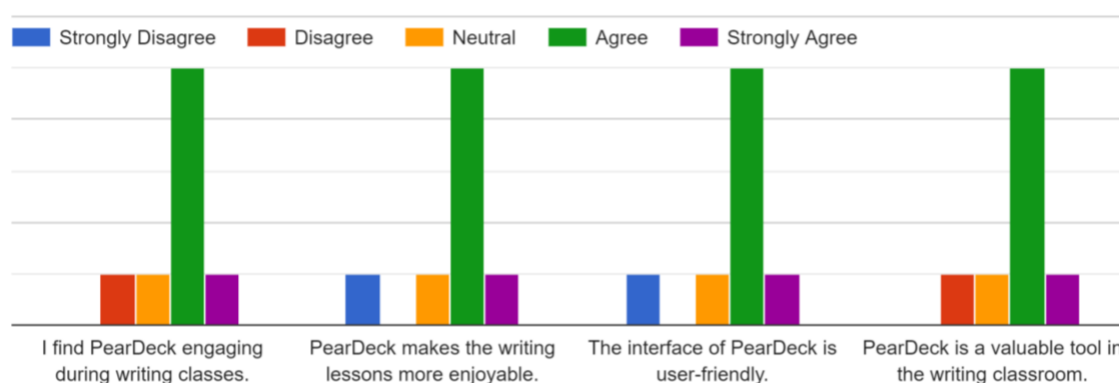
Looking first at Figure 1, almost all participants hold a positive view of the PearDeck platform. A large number of people agree that this application is engaging, making writing courses more enjoyable, has a user-friendly interface, and is considered a beneficial teaching tool. However, a small proportion of respondents chose neutral or disagree, accounting for the fact that there are still unfavourable opinions towards this web-based tool.
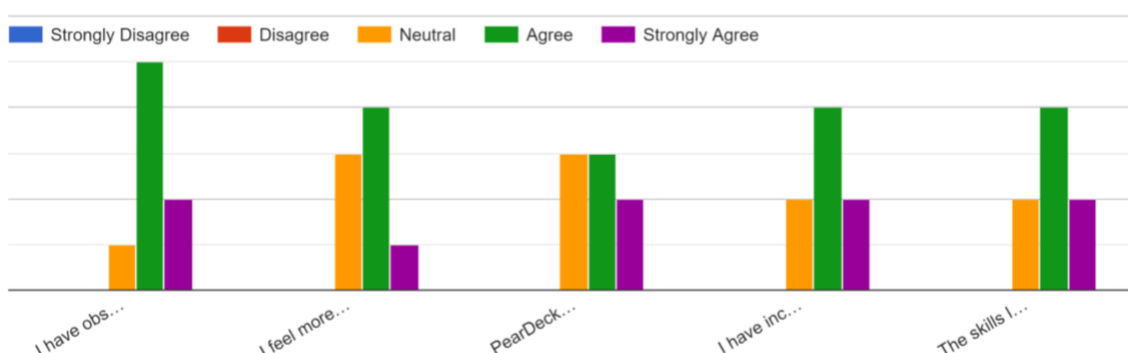
Figure 2.

Assess the improvement in students' writing skills.
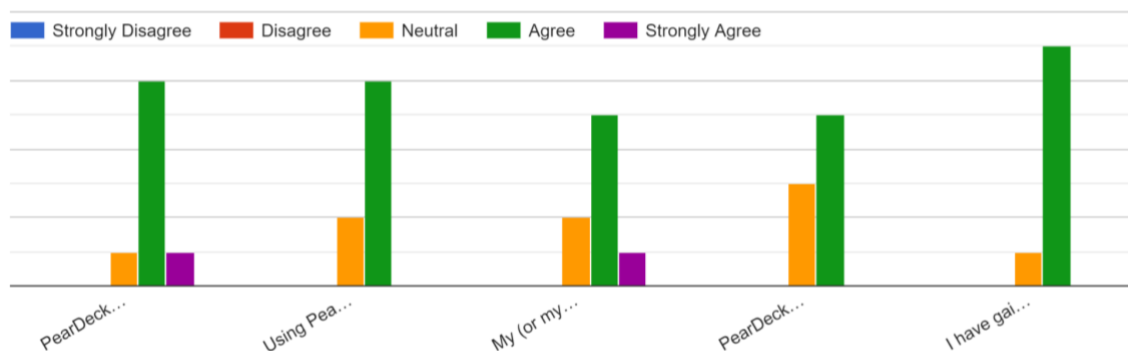
The result reveals most respondents consistently agree with the claims, as indicated by the prevalence of "*Agree*" across all categories. Additionally, a smaller yet notable proportion of participants strongly agree, indicating that PearDeck's influence has been rather well received. However, there is also a discernible presence of neutral responses, along with a few instances of disagreement, suggesting that while PearDeck is generally perceived as beneficial for learning, the degree of its effectiveness is subject to each user's experiences.

Figure 3.

Observe changes in students' writing practices or behaviors

The figure shows a diverse range of opinions across the statements, with agreement (green bars) and strong agreement (purple bars) being prominent for most question items. Notably, the first statement shows a high level of agreement and strong agreement, indicating a positive change observed by the respondents. However, the responses to the following claims show a more diverse distribution, with a notable number of neutral (yellow bars) and disagreeing (orange bars) responses. This variation suggests that while PearDeck is generally associated with positive behavioral outcomes, the extent of its effectiveness may vary among users.

Figure 4.

Evaluate the overall impact on student performance and achievement
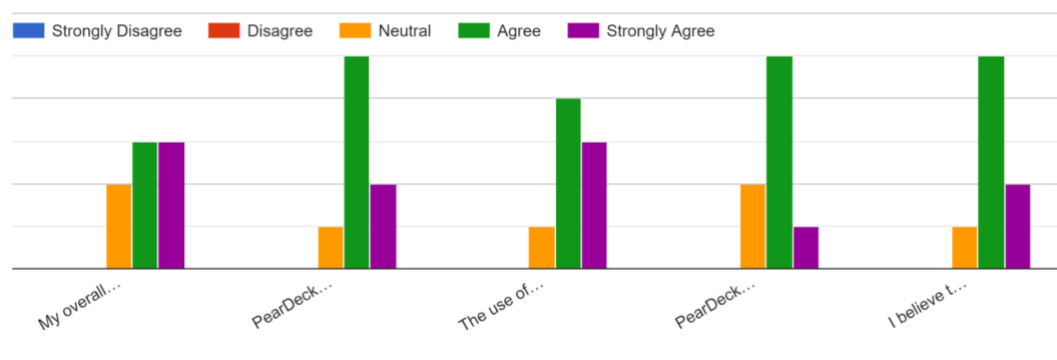

Figure 4 results indicate that PearDeck has had a broadly positive impact on the writing skills of English major students. Most respondents concur that they now write better overall, and many admit that their grades have improved somewhat thanks to PearDeck. Additionally, a significant number of students believe the skills learned through PearDeck will be beneficial in future writing tasks or professional settings, underscoring the tool's perceived long-term value. These findings suggest that PearDeck is an effective tool for enhancing immediate academic performance and future writing capabilities.

Interview result

Interviewees are asked three questions to further expound on the impact of PearDeck on their writing. Below are three provided questions:

What do you think are the most significant benefits of using PearDeck in writing instruction?

Are there any areas where you think PearDeck could be improved for learning writing skills?

Can you provide any examples of how PearDeck has influenced your writing skills?

According to the interview answers, PearDeck is highly valued in writing instruction, primarily due to its interactive and engaging features that facilitate real-time feedback and collaborative learning. Using interactive slides and immediate teacher feedback on the platform enhances student engagement and creativity, as learners can see and analyze their peers' ideas and then receive prompt guidance. This instant interaction transforms the learning environment into an active one, encouraging immediate error correction and the refinement of writing skills. However, responses indicate that PearDeck should improve the clarity of the user interface and provide more instructional support, such as tutorials, for navigation. Furthermore, there is a need for a greater variety of writing exercises and a system of tracking progress over time to support diverse writing practices, along with monitoring skill development. Generally, while PearDeck is perceived as quite effective in enhancing writing instruction, there is still room for improvement that could further optimize its impact on student learning outcomes.

Findings and Discussion

The findings suggest that English-major students at Hanoi University of Industry generally hold a favorable perception of PearDeck and deem it an effective tool for writing lessons. The data collected from the survey provides insights into how PearDeck has influenced students' learning experiences and development. Similarly, the interview results also indicate that PearDeck has

a positive influence on students' writing performance, which supports the data presented in the questionnaire.

From the questionnaire and survey analysis, it is evident that Peardeck has received positive responses from the majority of chosen participants. Most of them stated that this digital tool was not only engaging and user-friendly but also kept the lesson more enjoyable, boosting an active learning environment. This finding is consistent with Anggoro's (2020) research, which indicates that students become more active in class when PearDeck is used in the classroom. Another interesting feature that students appreciate is the constant feedback from both teachers and their peers, which is considered crucial in terms of writing productivity and active participation in in-class activities. This fact is aligned with Sengsri and Anggoro's study (2021). Students reported reaping benefits from being able to see their peers' work, which provides additional perspective and ideas, while instant comments and feedback from their teacher allowed them to correct and refine their work in a timely manner. This finding aligns with the results of Roqobih's 2024 study, in which he concluded that PearDeck can stimulate student participation and create interactive learning experiences. Additionally, he found that interactive learning using PearDeck can yield above-average scores for students.

However, there are still some opposing views toward the use of Pear Deck, probably attributable to different individual learning styles or the ways in which it is integrated into classrooms.

Conclusion

This small-scale research has demonstrated the impact of the PearDeck application on writing instruction for English majors at Hanoi University of Industry. As mentioned above, it is clear that PearDeck has had a positive impact on helping English-major students develop writing skills. Specifically, the improvements are shown in the structure of the writing assignment, grammar, the ability to apply feedback, and skills in revising. Additionally, most students felt that they gained a lot from receiving instant comments, thereby making overall progress in their writing. The study can contribute to the existing research gap on how technological tools, such as PearDeck, can facilitate the acquisition of English writing skills via a digital platform, particularly in a public university in Vietnam.

Despite the overwhelmingly positive reception, it appears that PearDeck still has room for improvement. Responses from students emphasize the need for a more user-friendly and intuitive interface to facilitate seamless navigation of the platform. Additionally, many have expressed the need for more diverse types of writing practice, such as reports. There should also be a function that helps students keep track of their overall progress so that they can monitor their improvements more closely.

The scale of this research is rather limited, with only 20 students. It is, therefore, recommended that future research be conducted on a larger population to improve the reliability of the findings.

References

Anggoro, K. J. (2021). Pear deck. *RELC Journal*, *52*(3), 645-647.

Anggoro, K. J., & Khasanah, U. (2022). EFL students' independent learning with Pear Deck interactive slides. *Studies in Self-Access Learning Journal, 13*(1), 172–176. https://doi.org/10.37237/130111

Angulo, J. C. L. (2023). The Importance of Instruction-Giving to Better Students' Performance of Class Activities in English Lessons. *Ciencia Latina Revista Científica Multidisciplinar*, *7*(3), 3449-3464.

Belland, B. R., Kim, C., & Hannafin, M. J. (2013). A framework for designing scaffolds that improve motivation and cognition. *Educational Psychologist*, 48(4), 243-270.

Do, T. T. L., Pham, N. T., & Ngo, P. A. (2024). Measuring EFL learners' perceptions of technology self-efficacy in online language learning. *International Journal of Language Instruction*, *3*(3), 54-78. https://doi.org/10.54855/ijli.24334

Ferris, D. R., & Hedgcock, J. S. (2014). *Teaching L2 Composition: Purpose, Process, and Practice* (3rd ed.). Routledge.

Graham, S., & Perin, D. (2007). A meta-analysis of writing instruction for adolescent students. *Journal of Educational Psychology*, 99(3), 445-476.

Ha T. (2024) Suggestions on Artificial Intelligence-Assisted Tools for Teaching and Learning English Writing Skills ISSN: 2189-101X – The Asian Conference on Education & International Development 2024 Official Conference Proceedings (pp. 651-664) https://doi.org/10.22492/issn.2189-101X.2024.51

Ha, C. B., & Wanphet, P. (2016). Exploring EFL teachers' use of written instructions and their subsequent verbal instructions for the same tasks . *Nordic Journal of English Studies*, *15*(4), 135–159. https://doi.org/10.35360/njes.387

Hung, C. M., Hwang, G. J., & Huang, I. (2012). A project-based digital storytelling approach for improving students' learning motivation, problem-solving competence, and learning achievement. *Educational Technology & Society*, 15(4), 368-379.

Hyland, K. (2003). *Second Language Writing*. Cambridge University Press.

Kirkpatrick, D., & Kirkpatrick, J. (2006). *Evaluating training programs: The four levels*. Berrett-Koehler Publishers.

Lan, M. (2023). Factors Affecting Non-English Major Students' Writing at a University in Vietnam. *Tạp chí Khoa học Ngoại ngữ*.

Lee, H., & Heinz, M. (2017). Examining technology-enhanced self-regulated learning in a language learning context. *Educational Technology Research and Development*, 65(6), 1425-1449.

Madden, N. O., Gordon, S., Chambers, R., Daley, J.-L., Foster, D., & Ewan, M. (2025). Teachers' Practices and Perceptions of Technology and ChatGPT in Foreign Language Teaching in Jamaica. *International Journal of Language Instruction*, *4*(2), 1-32. https://doi.org/10.54855/ijli.25421

Praslova, L. (2010). Adaptation of Kirkpatrick's four level model of training criteria to assessment of learning outcomes and program evaluation in higher education. *Educational assessment, evaluation and accountability*, *22*, 215-225.

Roqobih, F. D., & Astriani, D. (2024). Distance Learning Experience: Unleashing the Power of Peardeck for Post-Pandemic Education. *Jurnal Pijar Mipa*, *19*(3), 386-390.

Sengsri, S., & Anggoro, K. J. (2021). Students' Perceptions of Content and Language Integrated Pedagogy via Electronic Communication (e-CLIP). *World Journal on Educational Technology: Current Issues*, *13*(1), 54-67.

Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Harvard University Press.

Warschauer, M. (2010). Invited Commentary: New tools for teaching writing. *Language Learning & Technology*, 14(1), 3-8.

Biodata

Le Thu Huong is the English lecturer at the School of Languages and Tourism - Hanoi University of Industry, Vietnam. She has been teaching for 5 years. During those times, she has been interested in EOP, especially developing students' proficiency in Listening, Reading, Writing, and Speaking skills as well as communication skills. Her research interests include Computer-Assisted Language Learning, Cognitive Linguistics, Learners' Autonomy, and ELT Methodology.

Doan Quang Dung majored in English Language Teaching and has been a lecturer at Hanoi University of Industry for some years. He wishes to renovate his teaching methods to further motivate and inspire students to study. His area of interest includes Intercultural Communication, Applied Linguistics, ELT Methodology.