



Exploring Nursing Students' Perceptions of Google Tools in English for Nursing Learning.

Fini Widya Fransiska^{1*}, Bastian Sugandi²

¹Universitas Muhammadiyah Pringsewu, Indonesia

²Universitas Muhammadiyah Lampung, Indonesia

*Corresponding Author: finiwidyafrianska@umpri.ac.id

ABSTRACT

English Nursing Language plays an important role in supporting nursing students' communication skills, especially in facing the needs of healthcare services globally. Unfortunately, students often find learning English Nursing Language difficult due to limited medical vocabulary, low confidence in speaking, and the dominance of clinical practice. Digital technology offers opportunities to use online platforms such as Google tools for more flexible and contextual learning. This study examines students' perceptions of using Google tools in learning English Nursing Language as a general course. The mixed-methods approach was used, with quantitative data from 60 students via Likert questionnaires and qualitative data from interviews with five students. Learning utilized Google Classroom, Google Meet, Google Docs, and Google Forms. Data were analyzed using descriptive statistics and thematic analysis. The results show that students are positive about Google tools, rating ease of use, flexible access, engagement, and high relevance. Interviews indicated that Google Meet increased speaking confidence, and Google Docs supported collaborative writing. The main obstacles were internet connectivity and limited medical vocabulary. The study concludes that pedagogically and contextually integrated Google tools can support effective learning of English Nursing Language.

Keywords: English for Nursing, Google tools, student perceptions, technology-based learning, Nursing Education.

INTRODUCTION

English has an increasingly important role in the nursing world as healthcare globalization continues to grow (Coleman & Angosta, 2017). Nurses are required to communicate effectively with patients from diverse backgrounds, understand medical terms in English, and access international nursing literature as a basis for evidence-based practice. Therefore, mastery of English, especially in the context of nursing, becomes one of the professional competencies supporting nursing professionalism (Jirwe et al., 2010).

In the context of higher nursing education in Indonesia, Nursing English (English for Nursing) is generally taught as a General Basic Course. This course is designed to equip students with basic English skills relevant to professional needs, such as nurse-patient communication, health data recording, and understanding medical instructions. Thus, learning Nursing English is not only focused on linguistic aspects but also on functional and contextual aspects (Manik et al., 2022).

However, learning English is still often perceived as a challenging course by nursing students. These difficulties are usually caused by limited vocabulary, especially medical terminology, low confidence in speaking, and limited opportunities to practice authentic English communication. This condition results in low active participation of students in the English learning process (Crawford & Candlin, 2013; Onovo, 2019).

These challenges are even more felt by nursing students studying in regional higher education institutions. Diverse educational backgrounds, limited exposure to English before entering college, and the dominance of practical and clinical courses are factors that influence students' readiness to participate in English learning (Octaberlina et al., 2022; Wulandari et al., 2021). As a result, English is often viewed as an additional course and not yet fully integrated with the academic and professional needs of nursing.

On the other hand, technological advancements have brought significant changes to higher education, including in non-urban areas. Students today are relatively accustomed to using digital devices such as smartphones, instant messaging apps, social media, and various cloud-based platforms in their daily lives (Padmavathi, 2018; Yadgir, 2011; Yarahmadi, 2021). This phenomenon indicates a great potential for utilizing digital technology as a support tool for learning in higher education.

Changes in learning patterns have been increasingly visible since the COVID-19 pandemic, when online learning and blended learning became part of higher education practices (Anushalalitha, 2023; Imran et al., 2023; Junio & Bandala, 2022). Lecturers began to utilize various digital platforms to maintain the continuity of learning, both for the delivery of materials, discussions, and evaluations. In this context, digital platforms are no longer positioned as a temporary alternative, but rather as part of the modern learning ecosystem (Mursyidin et al., 2021).

One of the widely used platforms in learning is Google Workspace which provides various learning support applications, such as Google Classroom, Google Forms, Google Meet, and Google Docs (Mursyidin et al., 2021; Varianytsia et al., 2023). The platform offers ease of access, flexibility of time and place, and collaborative features that support interaction between lecturers and students. Practically, Google tools are also relatively in accordance with the condition of educational infrastructure in various regions (Alsaïdi et al., 2023; Siek & Wijaya, 2022).

A number of previous studies have reported that the use of Google tools in learning English has given students a positive response, especially in increasing learning motivation, active engagement, and learning independence (Maharsi, 2018; Shahidan et al., 2022). Google Classroom functions as a learning manager, Google Forms as an evaluation tool, Google Meet as a means of synchronous communication, and Google Docs as a collaborative learning medium. These findings suggest that Google tools have significant pedagogical potential.

Nonetheless, most of the research still focuses on general English learning or the educational context at a major college. Studies that specifically examine the use of Google tools in learning nursing English, especially considering the characteristics of nursing students at regional universities, are still relatively limited. This shows that there are research gaps that need to be studied further.

Based on these conditions, this study views the use of Google tools as one of the learning solutions that has the potential to support the effectiveness of learning Nursing English. Therefore, this study aims to examine the perception of nursing students towards the use of Google tools in learning Nursing English as MKDU. The results of this study are expected to make an empirical contribution to the development of Nursing English learning that is contextual, adaptive, and in accordance with the needs of students.

METHOD

This study uses a mixed-methods approach to gain a comprehensive understanding of nursing students' perceptions of the use of Google tools in learning Nursing English. This approach was chosen because it allows the simultaneous incorporation of quantitative and qualitative data, so that the results of the study not only illustrate the numerical tendencies of students' perceptions, but are also supported by an in-depth explanation of their experiences and views. Quantitative data was collected through a Likert scale questionnaire to identify students' perceptions in general, while qualitative data was obtained through interviews to explore learning experiences and obstacles faced while participating in Google tools-based learning.

The participants of this study are 60 students of the Nursing Study Program of the University of Muhammadiyah Pringsewu who are taking the Nursing English (MKDU) course in the 2022/2023 academic year. The selection of participants was carried out using a purposive sampling technique with the criteria of students who actively participated in Nursing English learning based on Google tools. The students involved have diverse backgrounds of English language skills and come from various regions in Lampung Province, so it is expected to represent the real conditions of nursing students at regional universities.

Nursing English learning is carried out using a blended learning approach by utilizing Google Classroom for material distribution and assignment collection, Google Forms for quizzes and evaluations, Google Meet for synchronous learning such as speaking exercises and discussions, and Google Docs for collaborative dialogue writing and nursing case-based collaborative assignments. The research instruments included a student perception questionnaire with seven main indicators, namely ease of use, ease of access, learning motivation, learning independence, learning engagement, improvement of learning outcomes, and relevance to nursing needs, as well as semi-structured interviews with five students voluntarily. Quantitative data was analyzed using descriptive statistics in the form of average scores and percentages, while qualitative data was analyzed using thematic analysis techniques. The flow of research implementation and the process of data collection and analysis is presented in Figure 1.

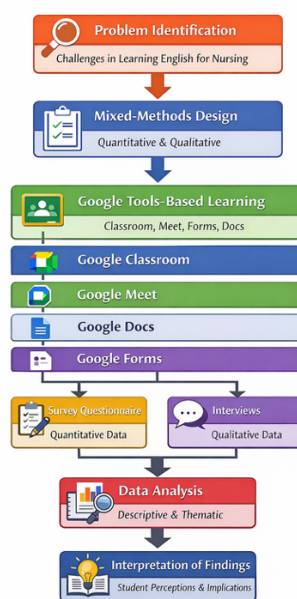


Figure 1. Research Flow of Students' Perception of the Use of Google Tools in Nursing English Learning

FINDINGS AND DISCUSSION

Findings

Student Perception Survey Results

This section answers the first research question, namely *how students perceive the use of Google tools in learning Nursing English*. Quantitative data was obtained from a five-level Likert scale questionnaire consisting of seven statements. The questionnaire was filled out by 60 students who took the Nursing English course.

The results of descriptive statistical analysis in the form of mean values and standard deviation are presented in Table 1.

Table 1. Average and Standard Deviation of Students' Perception of Google Tools Use

| No. | Survey Statement | Mean | SD |
|-----|--|------|------|
| 1 | Google tools are easy to use in learning | 4,28 | 0,61 |
| 2 | Google tools are easily accessible anytime and anywhere | 4,22 | 0,64 |
| 3 | The use of Google tools increases my learning motivation | 4,1 | 0,72 |
| 4 | Google tools help me learn independently | 4,05 | 0,69 |
| 5 | Google tools increase my engagement in learning | 4,3 | 0,58 |
| 6 | Google tools help improve my English learning outcomes | 4,08 | 0,66 |

| | | |
|-----------------|-----|------|
| Overall Average | 4,2 | 0,64 |
|-----------------|-----|------|

Based on Table 1, an overall average score of 4.20 shows that students have a positive perception of the use of Google tools in learning Nursing English. The highest scoring indicator was *the relevance of the material to nursing communication needs* (M = 4.35), which showed that students assessed Google tools-based learning according to the context of the nursing profession.

High scores were also found on the *indicators of learning engagement* (M = 4.30) and *ease of use* (M = 4.28). This indicates that the use of Google Meet for speaking practice and Google Docs for collaborative tasks can increase students' active participation in learning. Meanwhile, the indicators of *learning independence* and *improvement of learning outcomes* obtained slightly lower scores, although they remained in the positive category.

Table 1 shows that all indicators obtained an average score above 4.00, which indicates that students have a positive perception of the use of Google tools in learning Nursing English. The highest scoring indicators were *relevance to nursing needs* (M = 4.35) and *learning engagement* (M = 4.30). These findings show that students assess the use of Google tools in accordance with the needs of learning English Nursing and are able to increase their active participation in the learning process.

Visualization of student perception results is presented in Figure 2.

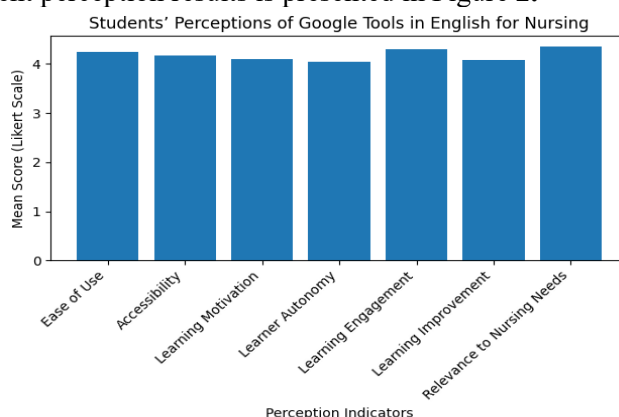


Figure 2. Students' Perceptions of Google Tools in English for Nursing

Based on Figure 2, it can be seen that all indicators are in the positive to very positive category. This shows that Google Classroom, Google Meet, Google Forms, and Google Docs can be well received by students as supporting media for learning Nursing English.

4.3 Student Interview Results

Qualitative data in this study was obtained through semi-structured interviews with five students of the Nursing Study Program who participated in Nursing English learning based on Google tools. The interview aims to explore students' learning experiences in more depth, especially related to their perception of the use of Google Classroom, Google Meet, Google Docs, and Google Forms in supporting learning. All interview data was transcribed verbatim and analyzed using thematic analysis techniques. The results of the analysis produced two main themes, namely the benefits of using Google tools in learning and the obstacles faced by students during the learning process, with several sub-themes appearing consistently.

Theme 1: Benefits of Using Google Tools in Nursing English Learning

The first theme shows that students generally view Google tools as a learning medium that supports increased confidence, active engagement, academic collaboration, and professional readiness as prospective nurses. Most students stated that the use of Google Meet provided a safer and more flexible learning space to practice speaking English, especially in the simulation of nurse-patient communication.

Students feel that online learning reduces psychological stress when it comes to speaking in English. One of the students revealed:

"If I go through Google Meet, I am more brave to speak English, because I am not too nervous like in class. If you are wrong, you are not too embarrassed."

A unique finding that emerged is that students feel more courageous to make mistakes in online learning. Mistakes are seen as part of the learning process, not as something embarrassing. This is different from their experience in face-to-face learning which often causes fear of being evaluated directly by lecturers and classmates.

Another student added that online learning gives them more time to think before speaking, thus helping them to structure sentences better, especially when using medical terms in English: "Usually when I'm in class, I like to be blank, but when it's online, I can think about what to say first."

In addition to speaking skills, students also consider Google Docs to be very helpful in developing nursing English writing skills. Students stated that the task of writing nurse-patient dialogues, short reports, and case-based exercises was easier because they could be done collaboratively. The co-editing feature allows students to provide corrections and feedback directly to each other.

A student said:

"If we use Google Docs, we can immediately see our friends' mistakes, continue to fix them together. So you understand the vocabulary of nursing better."

The uniqueness of the findings in this aspect is that students consider the process of correcting the work of friends as an effective vocabulary learning strategy, not just completing assignments. Students feel that seeing their friends' mistakes actually helps them remember the correct medical terms and sentence structure.

In addition, Google Classroom is perceived as a medium that helps students manage their learning rhythm independently. Students stated that they could repeat the material, download teaching materials, and check assignment deadlines more regularly. Meanwhile, Google Forms is considered practical because the results of the quiz can be known directly, so students can evaluate their understanding of the Nursing English material.

Theme 2: Technical and Linguistic Constraints in Google Tools-Based Learning

Although the students showed a predominantly positive perception, the interview results also revealed a number of obstacles faced during learning. The most frequently mentioned technical constraints are the limitations and instability of the internet network, especially when participating in synchronous learning through Google Meet. Students living in rural areas stated that network disruptions caused unclear sound and disconnections, making it difficult for them to follow the discussions optimally.

One of the students said:

"If the network is bad, the lecturer's voice is interrupted, so it's hard to participate in the discussion."

In addition to technical constraints, students also revealed linguistic constraints that are specific to nursing, namely the limitation of mastery of medical vocabulary in English. Some students stated that even though they understood the concept of nursing in Indonesian, they still had difficulty expressing it in English in an accurate and professional manner.

One student explained:

"I often know what it means in Indonesian, but I'm confused about what English is, let alone medical terms."

Another interesting finding is that students feel that they need contextual examples more than theoretical explanations. Students consider that a vocabulary list alone is not enough without being accompanied by examples of real dialogue in nursing situations. Therefore, students emphasized the importance of the role of lecturers in providing sustainable linguistic and pedagogical scaffolding.

Students also said that Google tools-based learning will be more optimal if it is accompanied by specific feedback, especially related to misuse of medical terms and professional communication expressions.

Overall, the results of the interviews showed that the use of Google tools provided a positive and meaningful learning experience for nursing students. Technology-based learning not only increases speaking confidence and active engagement, but also helps students build professional communication readiness as aspiring nurses. The unique findings of this study show that the online environment encourages students' courage to try, make mistakes, and learn collaboratively.

However, the effectiveness of Google tools-based learning is highly dependent on the readiness of the infrastructure and pedagogical support of lecturers. Therefore, the integration of Google tools in Nursing English learning needs to be designed contextually, structured, and adaptive to be able to optimally respond to students' academic and professional needs.

Discussion

The findings of this study show that nursing students have a positive perception of the use of Google tools in learning Nursing English, especially in the aspects of learning engagement, material relevance, and increased speaking confidence. These results are in line with previous research that states that Google-based learning platforms are able to create a learning environment that is flexible, accessible, and in line with students' digital habits, thereby increasing active participation in English learning (Thuan & Hanh, 2023). In the context of English for Specific Purposes (ESP), the relevance of the material to professional needs is a key factor in learning success.

High scores on the learning engagement indicators and interview findings related to students' courage to speak through Google Meet show that online learning can reduce affective barriers, such as anxiety and fear of making mistakes. These findings support research that synchronous technology-based learning allows students to practice speaking in a safer and less threatening environment, thereby increasing confidence and willingness to communicate in a foreign language (Musliadi et al., 2024). This is important in learning Nursing English which demands professional and accurate communication.

In addition, the use of Google Docs as a collaborative medium has been proven to support the development of writing skills and understanding of nursing vocabulary. Students not only learn from lecturers, but also from interaction with peers through the peer-editing process. These findings are in line with research that confirms that online collaboration can improve the quality of students' writing and linguistic awareness, especially in the context of task-based language learning (Shahidan et al., 2022). The collaborative process also strengthens meaningful learning because students are actively involved in building knowledge.

However, this study also found technical and linguistic constraints, especially related to the limitations of the internet network and mastery of medical vocabulary. These findings are consistent with previous research that stated that the effectiveness of online learning in regional universities is still influenced by the readiness of infrastructure and digital literacy of students (Junio & Bandala, 2022). In addition, the limitations of ESP vocabulary show that technology needs to be balanced with appropriate pedagogical strategies, such as scaffolding and contextualized input from lecturers.

Overall, the results of this study confirm that Google tools have great potential to support the learning of Nursing English if integrated contextually and pedagogically. These findings reinforce previous research that concluded that learning technology cannot stand alone, but must be supported by learning designs that are relevant to the needs of students and the active role of lecturers as facilitators (Rufaidah et al., 2021). Thus, the use of Google tools not only serves as a technical medium, but also as a means to build the professional communication competencies of nursing students.

CONCLUSION

This study concludes that the use of Google tools in learning Nursing English has a positive impact on students' learning experience, especially in terms of ease of use, flexibility of access, learning engagement, and relevance to nursing communication needs. Google Meet contributes to increasing students' confidence in practicing speaking, while Google Docs supports

collaboration and the development of nursing context-based writing skills. These findings show that the integration of digital technology designed pedagogically and contextually can support the achievement of students' professional competencies.

However, this study has limitations due to the relatively limited number of participants and the narrow scope of institutions, as well as quantitative data analysis that is still descriptive. In addition, internet network constraints are external factors that affect the implementation of online learning.

Therefore, further research is recommended to involve more diverse participants and institutional contexts and use experimental designs to examine the impact of using Google tools more objectively. The development of clinical case-based pedagogical strategies and strengthening medical vocabulary is also recommended to optimize technology-based Nursing English learning.

REFERENCES

- Alsaidi, B. K., Ali, M. A., & Hussain, I. A. (2023). Study the Effect of Using Google Classroom on the Academic Performance Under the Covid19 Pandemic Using Data Mining Technique. *International Journal of Interactive Mobile Technologies*, 17(6), 20–32. <https://doi.org/10.3991/ijim.v17i06.38783>
- Anushalalitha, T. (2023). Precovid, Covid and Post Covid Classes and Online Engineering. *Lecture Notes in Networks and Systems*, 524 LNNS, 533–546. https://doi.org/10.1007/978-3-031-17091-1_53
- Coleman, J.-S., & Angosta, A. D. (2017). The lived experiences of acute-care bedside registered nurses caring for patients and their families with limited English proficiency: A silent shift. *Journal of Clinical Nursing*, 26(5–6), 678 – 689. <https://doi.org/10.1111/jocn.13567>
- Crawford, T., & Candlin, S. (2013). Investigating the language needs of culturally and linguistically diverse nursing students to assist their completion of the bachelor of nursing programme to become safe and effective practitioners. *Nurse Education Today*, 33(8), 796–801. <https://doi.org/10.1016/j.nedt.2012.03.005>
- Imran, R., Fatima, A., Elbayoumi Salem, I., & Allil, K. (2023). Teaching and learning delivery modes in higher education: Looking back to move forward post-COVID-19 era. *International Journal of Management Education*, 21(2). <https://doi.org/10.1016/j.ijme.2023.100805>
- Jirwe, M., Gerrish, K., & Emami, A. (2010). Student nurses' experiences of communication in cross-cultural care encounters. *Scandinavian Journal of Caring Sciences*, 24(3), 436–444. <https://doi.org/10.1111/j.1471-6712.2009.00733.x>
- Junio, D. A., & Bandala, A. A. (2022). Blended Online Learning Strategy Amidst Covid 19 Pandemic. *2022 IEEE 14th International Conference on Humanoid, Nanotechnology, Information Technology, Communication and Control, Environment, and Management, HNICEM 2022*. <https://doi.org/10.1109/HNICEM57413.2022.10109357>
- Maharsi, I. (2018). Developing EFL Students' Learning Reflection and Self-Regulated Learning through Google Classroom. *ACM International Conference Proceeding Series*, 62–66. <https://doi.org/10.1145/3234825.3234841>
- Manik, M., Gultom, E., Sibuea, R., & Pailak, H. (2022). Virtual Simulation Learning from Indonesian Nursing Students' Perspectives. *Open Access Macedonian Journal of Medical Sciences*, 10(G), 112–117. <https://doi.org/10.3889/oamjms.2022.8239>
- Mursyidin, M., Parlindungan, F., & Rahmatillah, R. (2021). Challenges in Online Learning during Covid-19 Pandemic: Lessons Learned from Universities in Indonesia. *TESOL International Journal*, 16, 110–124. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85107441604&partnerID=40&md5=9ff058427cb6cd3a9b647b47438da08b>
- Musliadi, M., Triyono, S., & Jamilah, J. (2024). Enhancing speaking agility: Unveiling Indonesian lecturers' hybrid teaching experiences in oral communication skills. *Language Learning in Higher Education*, 14(2), 401–433. <https://doi.org/10.1515/cercles-2024-0018>

- Octaberlina, L. R., Muslimin, A. I., & Rofiki, I. (2022). An Investigation on the Speaking Constraints and Strategies Used by College Students Studying English as EFL Learners. *International Journal of Learning, Teaching and Educational Research*, 21(9), 232–249. <https://doi.org/10.26803/ijlter.21.9.14>
- Onovo, G. N. (2019). Fundamentals of Nursing Practice and the Culturally Diverse ESL Nursing Students: The Students' Perspectives for Teaching and Learning in Nursing. *Teaching and Learning in Nursing*, 14(4), 238–245. <https://doi.org/10.1016/j.teln.2019.03.003>
- Padmavathi, G. (2018). Technological impact on higher education-challenges and opportunities from the perception of two important segments. *International Journal of Engineering and Advanced Technology*, 7(4), 85–89. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062328116&partnerID=40&md5=884be06b784907f8b5f2a9d23c8c0e31>
- Rufaidah, L. N., Umamah, N., & Surya, R. A. (2021). Learning environment technology-based in improving students' independent learning. *IOP Conference Series: Earth and Environmental Science*, 747(1), 012056.
- Shahidan, S. N., Ali, Z., & Tilwani, S. A. (2022). Fostering Motivation in ESL Collaborative Online Writing through Google Docs. *World Journal of English Language*, 12(7), 166–178. <https://doi.org/10.5430/wjel.v12n7p166>
- Siek, M., & Wijaya, I. (2022). Investigating Cloud-Based Educational Technology Adoption in Advancing Learning Performance. *2022 4th International Conference on Cybernetics and Intelligent System, ICORIS 2022*. <https://doi.org/10.1109/ICORIS56080.2022.10031577>
- Thuan, P. D., & Hanh, N. T. H. (2023). University Students' Perceptions of Google Tools in Learning English Courses Online. *International Journal of Emerging Technologies in Learning*, 18(13), 45–61. <https://doi.org/10.3991/ijet.v18i13.39857>
- Variantsia, L., Musiienko, V., Kolenko, A., Huda, O., & Stozub, V. (2023). Google Classroom Learning Cloud Environment in the Modern Information and Digital Society. *Journal of Curriculum and Teaching*, 12(5), 14–23. <https://doi.org/10.5430/jct.v12n5p14>
- Wulandari, B. A., Piscioneri, M., & Ikram, W. (2021). Examining students' challenges in oracy in academic context classes. *International Journal of Language Education*, 5(1), 598–615. <https://doi.org/10.26858/IJOLE.V5I1.16002>
- Yadgir, S. A. (2011). Leading in a technological age. *Educational Research and Reviews*, 6(10), 664–670. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-82255193171&partnerID=40&md5=13fcbd045dbc46c23bc716dbb08c17a>
- Yarahmadi, F. (2021). Exploring the Emergence of Industrial Revolution 4.0: A Journey to Higher Education 4.0. In *Contributions to Economics* (pp. 263–274). https://doi.org/10.1007/978-3-030-61342-6_11