

# Designing V-HOPE (Virtual handbook of nursing excellence): An interactive digital flipbook for English for nursing learning

Al Vino Hafif Shah Putra<sup>1</sup> and Ulfa Wulan Agustina<sup>2</sup>

<sup>1,2</sup> English Education, Faculty of Education, KH. A. Wahab Hasbullah University, Jombang, Indonesia

**Abstract.** The integration of technology in education has become increasingly important in the era of the Industrial Revolution 4.0. In nursing education, English proficiency plays a crucial role in enabling students to communicate effectively in healthcare environments and access international medical information. However, English learning in many nursing institutions still relies on traditional teaching methods that lack interactivity and contextual relevance. This study aimed to design and develop V-HOPE (Virtual Handbook of Nursing Excellence), an interactive digital flipbook designed to support English for Nursing learning. The research employed a Research and Development (R&D) approach adapted from the ADDIE model, which consists of analysis, design, development, implementation, and evaluation stages. Data were collected through questionnaires and interviews with nursing students and lecturers at STIKES Bahrul Ulum Jombang. The flipbook was developed using Canva and converted into an interactive format through the Heyzine platform. The validation results indicated that the material expert evaluation reached 73% and the media expert evaluation reached 69%, both categorized as “good.” Furthermore, student responses during the implementation phase reached 85.4%, categorized as “very good.” These results indicate that V-HOPE is feasible as an interactive digital learning medium to support English learning for nursing students.

**Keywords:** English for Nursing; digital learning media; interactive flipbook; ADDIE model; V-HOPE

## 1 Introduction

The rapid development of digital technology has transformed various aspects of education and encouraged educational institutions to integrate technology into learning activities. In the era of digital transformation, technology-enhanced learning has become increasingly important for improving educational quality, increasing student engagement, and providing flexible access to learning resources. The integration of digital learning media is considered one of the effective strategies to support meaningful learning experiences and promote

---

<sup>1</sup>Corresponding author: [alvinohafifshahputra@gmail.com](mailto:alvinohafifshahputra@gmail.com)

learner-centered instruction in higher education (Agustini et al., 2022; Valvi & Fragkos, 2022; Cahyono & Widiati, 2022).

English plays an important role in the healthcare sector because it is widely used as an international language for medical communication, scientific publication, and professional collaboration. Nursing students are expected to master English skills to communicate effectively with patients, understand medical terminology, and access up-to-date healthcare information from international sources. Therefore, English learning in nursing education should be designed to support students' professional needs and prepare them for real healthcare environments (Karaçay et al., 2022; Rahmawati & Sulistyowati, 2023; Nata, 2025).

However, English learning in many nursing institutions still relies on conventional teaching materials such as printed textbooks and lecture-based instruction. These approaches often limit students' active participation and provide insufficient opportunities to practice language skills in authentic nursing contexts. As a result, students may experience difficulties in understanding specialized medical vocabulary and applying English in real healthcare situations. Previous studies have emphasized the importance of developing contextualized and technology-supported English learning materials to address these challenges (Arifani et al., 2023; Puspasari & Agustina, 2025; Nata, 2025).

To address these challenges, digital learning media can be utilized to create more interactive and engaging learning environments. One of the promising forms of digital learning media is the interactive digital flipbook, which integrates text, images, videos, hyperlinks, and interactive activities into a single learning platform. Research has shown that interactive flipbooks can improve students' motivation, engagement, and learning outcomes by providing multimedia-rich learning experiences and encouraging active participation during the learning process (Aprilia et al., 2024; Bayhaki & Untari, 2023; Nurhidayati et al., 2023).

Furthermore, interactive digital learning media support autonomous learning and provide flexibility for students to access learning materials anytime and anywhere. Such flexibility is particularly important in higher education because it promotes learner independence and encourages continuous learning beyond classroom settings. The integration of multimedia features in digital learning environments has also been found to increase students' interest and engagement in learning activities (Widodo et al., 2023; Agustini et al., 2022; Pratama & Mulyati, 2024).

## **2 Method**

### **2.1 Design**

This study employed a Research and Development (R&D) approach using the ADDIE instructional design model, which consists of five stages: analysis, design, development, implementation, and evaluation.

### **2.2 Participant/ Population and Sample**

The participants of this study were fourth-semester nursing students at STIKES Bahrul Ulum Jombang. A total of 37 students participated in the implementation phase of the study.

2.3 Instrument/ Data collection

Data were collected using several instruments, including needs analysis questionnaires, interviews with lecturers and program coordinators, expert validation sheets, and student response questionnaires.

2.4 Data Analysis

The collected data were analyzed using descriptive quantitative analysis. The results of expert validation and student responses were calculated using percentage formulas to determine the feasibility of the developed learning media.

3 Results and Discussion

3.1 Results

The results of this study are presented based on the stages of the Research and Development (R&D) process using the ADDIE model, including expert validation and product implementation. The purpose of this section is to describe the feasibility and acceptability of the developed product, V-HOPE, as an interactive digital learning medium for English for Nursing.

In the development stage, the initial version of V-HOPE was evaluated by two experts, namely a material expert and a media expert. The material expert focused on evaluating the relevance, accuracy, and appropriateness of the content in relation to English for Nursing, including the use of medical vocabulary, clarity of explanations, and alignment with learning objectives. Meanwhile, the media expert assessed the design and technical aspects of the flipbook, such as layout, visual appearance, navigation, readability, and the integration of multimedia elements.

After the expert validation process, several revisions were made to improve the quality of the product. These revisions included refining instructional content, improving visual consistency, enhancing user interface design, and optimizing the functionality of interactive features such as videos and exercises. This iterative process reflects the nature of R&D, where continuous improvement is essential to produce a valid and effective learning medium.

Following the development stage, the product was implemented with fourth-semester nursing students at STIKES Bahrul Ulum Jombang. The implementation aimed to examine students’ responses to the use of V-HOPE in the learning process. Students were asked to use the flipbook and complete a response questionnaire to evaluate its effectiveness, usability, and attractiveness. The results of expert validation and student responses are summarized in Table 1.

Table 1. Validation and implementation results.

| Aspect              | Percentage | Category  |
|---------------------|------------|-----------|
| Material Validation | 73%        | Good      |
| Media Validation    | 69%        | Good      |
| Student Response    | 85.4%      | Very Good |

The table shows that student responses achieved the highest percentage, indicating strong acceptance of the developed media.

### 3.2 Discussion

This study aimed to develop V-HOPE as an interactive digital learning medium for English for Nursing using a Research and Development (R&D) approach based on the ADDIE model. The discussion of the findings is presented by linking each stage of the ADDIE process with the results obtained during validation and implementation. The findings of this study are consistent with previous research indicating that interactive digital learning media can significantly improve student engagement and motivation. Aprilia et al. (2024) found that digital flipbooks promote active learning by combining visual, textual, and interactive elements. Similarly, Agustini et al. (2022) reported that interactive flipbook-based learning environments enhance students' learning experiences and encourage greater participation during instructional activities.

In the analysis stage, the findings revealed a clear gap between the existing learning conditions and students' needs. The reliance on conventional materials such as textbooks and PowerPoint presentations limited students' opportunities to engage actively with the learning content. In addition, students experienced difficulties in understanding medical vocabulary and applying English in clinical contexts. These findings highlight the importance of needs analysis in R&D studies, as it ensures that the developed product is grounded in real educational problems and learner needs. The identification of these gaps became the foundation for designing a more interactive and contextual learning medium. These findings are consistent with previous studies highlighting the importance of needs analysis in English for Specific Purposes (ESP) instruction. Nursing students require learning materials that are directly related to their future professional contexts, particularly in developing communication skills and understanding medical terminology. Therefore, identifying learners' needs becomes an essential step in designing effective instructional materials for nursing education (Nata, 2025; Rahmawati & Sulistyowati, 2023).

In the design stage, V-HOPE was structured to address the identified needs by integrating English learning with nursing contexts. The inclusion of five thematic units The Hospital Team, Accident and Emergency, Signs and Symptoms, Mental Health Nursing, and Nutrition and Obesity reflects an effort to provide authentic and relevant learning materials. Furthermore, the incorporation of multimedia elements such as videos, visual illustrations, and interactive exercises demonstrates the application of learner-centered design principles. This stage is crucial in R&D, as it translates theoretical considerations and learner needs into a concrete instructional design. The integration of contextual nursing topics and multimedia components in V-HOPE reflects current instructional design principles that emphasize student engagement and meaningful learning experiences. The use of multimedia learning resources has been reported to support students' comprehension by presenting information through multiple representations, including text, visuals, and interactive activities (Hidayat et al., 2024; Valvi & Fragkos, 2022).

In the development stage, the product underwent expert validation to evaluate its content and technical quality. The material expert evaluation reached 73%, while the media expert evaluation reached 69%, both categorized as "good." These results indicate that the product met the basic standards of feasibility in terms of content accuracy, instructional relevance, and media design. However, the slightly lower score in media validation suggests that certain aspects, such as visual consistency, navigation, and interactivity, required further refinement. This finding reflects the interactive nature of R&D, where feedback from experts is essential to improve the quality of the product before implementation. The validation results obtained in this study are comparable to previous research on digital learning media developed using the ADDIE model. Expert validation plays an important role in ensuring that instructional materials meet quality standards in terms of content accuracy, instructional effectiveness, and technical design. Feedback from experts also contributes significantly to product improvement before implementation (Valvi & Fragkos, 2022; Li & Sun, 2024).

In the implementation stage, the product was tested with 37 nursing students, resulting in a significantly higher score of 85.4%, categorized as “very good.” This result indicates that the developed media was highly accepted by the users. The higher student response compared to expert validation suggests that, from the learners’ perspective, the product was engaging, easy to use, and helpful in understanding the material. Students were able to interact with the content through multimedia features, which enhanced their motivation and participation during the learning process. This finding supports the idea that user experience plays a critical role in determining the effectiveness of digital learning media. The high level of student acceptance demonstrated in this study supports previous findings indicating that digital flipbooks can enhance learner motivation and participation. Interactive learning media enable students to engage actively with learning content through multimedia elements, which can improve learning experiences and increase students’ interest in the subject matter (Aprilia et al., 2024; Bayhaki & Untari, 2023; Widodo et al., 2023).

In the evaluation stage, the combination of expert validation and student responses provides a comprehensive understanding of the product’s quality. The “good” category from expert validation (73% and 69%) indicates that the product is valid and appropriate for use, while the “very good” student response (85.4%) demonstrates its practicality and effectiveness in real learning situations. The difference between expert and student scores also suggests that while technical improvements may still be needed, the overall learning experience provided by V-HOPE is already strong and impactful. Moreover, the findings of this study reinforce the effectiveness of multimedia-based learning in enhancing student engagement and comprehension. The use of an interactive digital flipbook allows students to access materials in a more flexible and autonomous way, which is particularly important in higher education contexts. The integration of contextual nursing content also helps bridge the gap between language learning and professional application, making the learning process more meaningful.

Similar findings have been reported in previous studies on multimedia learning environments. Interactive multimedia resources facilitate better understanding, knowledge retention, and learner engagement by combining visual, textual, and interactive elements in a single learning platform. Such learning experiences are particularly beneficial in vocational education, where contextual and practical learning activities are essential for competency development (Sudiarti et al., 2023; Nurhidayati et al., 2023; Pratama & Mulyati, 2024). This result is also supported by recent studies emphasizing that multimedia learning environments facilitate better knowledge retention and understanding through the integration of multiple forms of information presentation. The incorporation of videos, illustrations, and interactive exercises in V-HOPE may contribute to improved learner engagement and comprehension, particularly in vocational education contexts where practical application is highly valued (Sari et al., 2025; Aprilia et al., 2024).

Overall, the implementation of the ADDIE model in this R&D study proved to be effective in producing a learning medium that is not only valid in terms of content and design but also practical and engaging for students. The systematic development process ensured that V-HOPE was designed based on real needs, improved through expert feedback, and validated through actual classroom implementation. Therefore, V-HOPE can be considered a feasible and effective digital learning medium for supporting English for Nursing education.

## 4 Conclusion

This study aimed to design and develop V-HOPE (Virtual Handbook of Nursing Excellence) as an interactive digital flipbook to support English for Nursing learning. The study employed

a Research and Development (R&D) approach using the ADDIE model, which ensured a systematic process from needs analysis to product evaluation.

The findings indicate that the developed product is both feasible and effective as a learning medium. The expert validation results showed that the material aspect achieved a score of 73% and the media aspect achieved 69%, both categorized as “good,” indicating that the product meets the required standards in terms of content and design. Furthermore, the implementation results revealed a higher level of student acceptance, with a score of 85.4%, categorized as “very good.” This suggests that V-HOPE is well-received by learners and supports their engagement in the learning process.

The integration of multimedia elements such as videos, interactive exercises, and contextual nursing materials contributes significantly to improving students’ understanding and motivation. The use of a digital flipbook format also provides flexibility for independent learning, allowing students to access materials anytime and anywhere. These features align with the demands of modern education, particularly in vocational fields where practical and contextual learning is essential.

However, this study has some limitations. The implementation was conducted on a limited number of participants within a single institution, and the evaluation focused primarily on feasibility and student responses rather than long-term learning outcomes. Therefore, further research is recommended to involve a larger sample size and to examine the effectiveness of V-HOPE in improving students’ English proficiency through experimental or quasi-experimental designs.

In conclusion, V-HOPE can be considered a valid, practical, and engaging digital learning medium for English for Nursing. It has the potential to support the integration of technology in nursing education and to enhance students’ learning experiences in a more interactive and meaningful way.

## References

- Agustini, K., Wahyuni, D. S., Mertayasa, I. N. E., Sugihartini, N., & Subawa, I. G. B. (2022). Digital learning media innovation and learning experience: Creating interactive flipbook for vocational students. In *Proceedings of the 4th International Conference on Vocational Education and Technology (ICOVET 2021)* (pp. 170–175). Atlantis Press.
- Aprilia, T., Djono, D., & A’isyah, A. (2024). Utilization of interactive e-flipbook media oriented toward contextual approaches to learning in elementary schools. *Jurnal Inovasi Teknologi Pendidikan*, 11(2), 180–192. <https://doi.org/10.21831/jitp.v11i2.71434>
- Arifani, Y., Asari, S., Anwar, K., & Budianto, L. (2023). Digital technology integration in ESP learning: Challenges and opportunities. *Journal of English Language Teaching and Linguistics*, 8(1), 1–15.
- Bayhaki, M. F., & Untari, R. S. (2023). Flipbook learning boosts multimedia students’ learning outcomes: Quasi-experimental study. *Academia Open*, 8, Article 5108. <https://doi.org/10.21070/acopen.8.2023.5108>
- Cahyono, B. Y., & Widiati, U. (2022). The implementation of technology-enhanced language learning in higher education. *TEFLIN Journal*, 33(2), 215–232.
- Hidayat, D., Ratmanida, & Jufrizal. (2024). Developing interactive digital learning media for vocational education using the ADDIE model. *International Journal of Instruction, Technology and Social Sciences*, 4(1), 34–46.
- Karaçay, P., Zeybekoğlu, Z., Chizzo, J., & Middlebrooks, A. K. (2022). A qualitative exploratory study of the effects of simulation on nursing students’ self-efficacy

- beliefs for using English for professional purposes. *Simulation & Gaming*, 53(1), 24–44. <https://doi.org/10.1177/10468781211068881>
- Li, R.-Y., & Sun, J. C.-Y. (2024). Identifying key factors of dynamic ADDIE model for instructional virtual reality design: An exploratory study. *Interactive Learning Environments*, 32(10), 6984–6996. <https://doi.org/10.1080/10494820.2023.2296519>
- Nata, I. D. (2025). Need analysis of English for specific purposes (ESP) for nursing students at STIKES Eka Harap Palangka Raya. *The Future of Education Journal*, 4(1), 45–56.
- Nurhidayati, E., Setiawan, A., & Kusumaningrum, S. (2023). The effectiveness of interactive flipbook media in improving students' learning outcomes. *Journal of Educational Media and Technology*, 7(1), 55–67.
- Pratama, R. A., & Mulyati, S. (2024). Student engagement through multimedia-based learning media in higher education. *Journal of Educational Technology Research*, 12(1), 71–84.
- Puspasari, A., & Agustina, N. (2025). The integration of AI in English for nursing instruction: A systematic literature review. *Journal of English Teaching*, 11(1), 1–15. <https://doi.org/10.33541/jet.v11i1.6509>
- Rahmawati, N., & Sulistyowati, T. (2023). English for Nursing: Students' needs and challenges in professional communication. *Journal of Language and Health Education*, 5(2), 88–99.
- Sudiarti, D., Ashilah, N. M., & Nurjanah, U. (2023). Implementation of flipped learning with flipbook media assistance on learning outcomes and critical thinking abilities. *Jurnal Inovasi Teknologi Pendidikan*, 10(4), 405–418. <https://doi.org/10.21831/jitp.v10i4.58191>
- Valvi, T., & Fragkos, G. (2022). A comparative study of the ADDIE instructional design model in distance education. *Information*, 13(9), Article 402. <https://doi.org/10.3390/info13090402>
- Widodo, J. P., Subandowo, M., Musyarofah, L., & Slamet, J. (2023). Interactive gamification-flip-book for developing students' outcomes. *Advances in Mobile Learning Educational Research*, 3(2), 623–633. <https://doi.org/10.25082/AMLER.2023.02.002>