

The Feasibility and Validation of My Saves Media to Support Independent Learning Among Students with Hearing Disabilities

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ABSTRACT

This study develops My-SaVes, an interactive digital learning media created to support English vocabulary learning and speaking-related skills for deaf students at SLB Negeri Jombang (Tambunan, 2022). The media was designed in response to the limited availability of accessible learning tools that match the visual and communicative needs of deaf learners. The study applies a development model consisting of analysis, design, development, implementation, and evaluation to ensure that the product is systematically constructed and aligned with learners' characteristics (Firda & Nurhadi, 2023). Data were collected through interviews, questionnaires, expert validations, and product trials involving fourth- and fifth-grade deaf students as well as experts in material and media evaluation. The results show that the material aspect meets good quality standards, while the media aspect reaches a very good category, indicating that the product fulfills the criteria for instructional use. During the implementation stage, students demonstrated strong interest and positive engagement, and the media was found to be helpful in supporting vocabulary recognition, comprehension, and learning motivation. The combination of visual elements, clear text, and sign-supported videos enables students to access the material more effectively and encourages them to participate actively in learning activities (Khasawneh, 2023). Based on the evaluation, My-SaVes is considered feasible and effective as a digital learning medium for deaf students and has the potential to enhance inclusive English learning practices. Further development is suggested to expand the content and support broader implementation in special education settings.

Keywords: *My- SaVes, speaking skill, learning media, vocabulary, deaf student, games, slbn jombang*

INTRODUCTION

English has become an essential global language, yet its instruction remains challenging for learners with hearing impairments, who depend heavily on visual input and require adapted teaching media to fully access linguistic information. In Indonesian special schools, vocabulary learning is often limited to static worksheets, basic images, or teacher demonstrations, creating a gap between the expected learning outcomes and the actual abilities achieved by deaf students (Nonci et al., 2022). Research shows that deaf learners benefit significantly from visually rich, interactive, and repetitive exposure to vocabulary because such modes align with their cognitive strengths and support long-term retention. However, recent studies still report that many English learning materials used in special education do not integrate visual scaffolding, sign-supported explanations, or interactive elements needed to enhance comprehension (Azma et al., 2013). Although prior studies have developed visual media, pocket dictionaries, or video-based tools, these resources often focus on recognition rather than active engagement, lack integrated sign-language components, or are not designed specifically to support speaking-related aspects such as articulation and sign-to-word association. This creates a research gap that highlights the need for a more comprehensive and interactive medium tailored to the characteristics of deaf learners. The present study positions itself in support of previous findings that emphasize the effectiveness of visual learning for deaf students, yet extends them by offering a digital innovation that integrates images, text, and sign-supported videos within a single platform. This study introduces My-SaVes, a digital learning medium developed to bridge the gap between vocabulary exposure and learner engagement, providing a more accessible and motivating learning environment (Pratama & Destia Dwi Mulyani, 2024). The objective of this study is to design and validate My-SaVes as an effective medium to enhance English vocabulary learning for deaf students through a systematic development process.

English learning in Indonesian special schools continues to face significant challenges, particularly for deaf students who depend heavily on visual access to information. As a global language, English requires the mastery of vocabulary as a fundamental component before students can develop further skills such as reading, writing, and signing-based communication. However, conventional English instruction is still dominated by methods that rely on auditory explanation, teacher demonstration, and static worksheets, creating a substantial gap between expected learning outcomes and students' actual abilities in the classroom. Deaf students often struggle to recognize and recall vocabulary because visual support is limited, sign-language integration is inconsistent, and the learning media used are not fully aligned with their communication characteristics.

Research in deaf education emphasizes that visual learning, clear modeling, and multimodal exposure play crucial roles in facilitating comprehension. Theories of visual processing state that deaf learners rely on strengthened visual-spatial pathways, which allow them to learn more effectively when material is presented through imagery, movement, and manual signs. Recent studies also show that digital learning tools can significantly improve vocabulary mastery when they incorporate visual scaffolding, sign language demonstrations, and interactive tasks that provide repetition and feedback. Despite these findings, many media used in schools still lack integrated sign support, adequate interactivity, or visually appealing design, resulting in low engagement and limited vocabulary retention.

METHOD

This study employed a Research and Development (R&D) design using the ADDIE model, consisting of analysis, design, development, implementation, and evaluation (Okpatrioka Okpatrioka, 2023). The subjects of this study were deaf students at SLB Negeri Jombang and expert validators, including material experts, media experts, and deaf education experts. Data were collected through interviews and needs-analysis questionnaires during the analysis stage. In the design and development stages, the researcher created the My-SaVes learning media by preparing materials, visuals, and sign-language videos tailored to students' characteristics (Saripah, 2022). Validation sheets were used to obtain expert assessments regarding content accuracy, media quality, clarity, usability, and suitability for deaf learners. After revisions, the media was implemented in a classroom setting where students interacted directly with the product. Student response questionnaires, observations, and vocabulary tasks were used to collect data during implementation. Validation results and student responses were analyzed quantitatively using percentage scores, while observations were described qualitatively to evaluate practicality and effectiveness. All procedures, instruments, and steps followed the standards and requirements specified by the researcher to ensure that the study could be replicated.

RESULT AND DISCUSSION

The development of My-SaVes produced several important findings related to feasibility, usability, and learner response. Expert validation showed that the material aspect achieved a score of 78.5%, categorized as good and appropriate for instructional use, while the media aspect reached 88%, categorized as very good, indicating that the visual layout, navigation, sign-language integration, and interactive components met the criteria required for deaf learners. Deaf expert validation confirmed that the sign videos, visual clarity, and gesture accuracy were accessible and aligned with the communicative needs of the students. After revisions based on expert input, the product was implemented in the classroom, where students interacted with the media smoothly and demonstrated high enthusiasm. Student response questionnaires yielded an average score of 89%, showing that learners found My-SaVes attractive, easy to use, and helpful in improving vocabulary understanding.

These results demonstrate that My-SaVes functions effectively as a digital medium that supports learning for deaf students. The high validation scores reinforce the importance of clear visuals, structured design, and multimodal features in enhancing comprehension among learners with hearing impairments (Ma'arif et al., 2021). The positive student responses also indicate that interactive and sign-supported materials can increase motivation and reduce reliance on teacher assistance. Compared to previous media that relied only on images or simple videos, My-SaVes offers an innovation by integrating sign-language videos, interactive quizzes, and score feedback in one platform, providing a more complete learning experience. The findings support earlier research on the effectiveness of visual learning for deaf students while extending existing knowledge by demonstrating that a unified, sign-supported digital tool can significantly enhance vocabulary mastery and learner autonomy in special education contexts (Sari & Aminatun, 2021).

Result

The development of My-SaVes through the ADDIE model produced results that demonstrate the feasibility and effectiveness of the media for deaf students. In the analysis stage, interviews and needs assessment revealed that deaf students required visually rich instructional media capable of combining clear images, sign-language demonstrations, and simple navigation to help them understand English vocabulary. Teachers also indicated that existing materials were insufficient because they relied heavily on static worksheets and lacked sign-supported explanations.

The validation results show that the My-SaVes learning media met the feasibility criteria based on expert assessments. Material validation obtained a score of 78.5%, categorized as good, indicating that the content, language, and material organization were appropriate for use. Media validation reached 88%, categorized as very good, showing that the visual design, layout, navigation, and sign-language integration were suitable for deaf students. After revisions, the product was implemented in classroom learning, where observation results indicated that students were able to use the media independently and showed high enthusiasm during the learning activities. Student response data showed an average score of 89%, categorized as strongly positive, demonstrating that learners found the media attractive, easy to understand, and supportive in improving vocabulary mastery. Overall, the results indicate that My-SaVes is feasible, accessible, and effectively supports vocabulary learning for deaf students.

Table 1. Validation and Student Response Scores

CATEGORY	SCORE (%)
Material Validation	78.5 %
Media Validation	88.0 %
Students Response	89.0 %

Discussion

The results of this research show that My-SaVes is feasible and effective as a digital learning medium for deaf students, as reflected in the high material validation score of 78.5%, media validation score of 88%, and student response score of 89%. These findings indicate that the combination of visual elements, sign-supported videos, and interactive components can significantly improve accessibility and learning motivation for students with hearing impairments. This aligns with established theories stating that deaf learners rely heavily on visual processing, direct modeling, and repeated visual exposure to construct meaning. The strong student responses confirm that visually rich materials enhance retention and comprehension, supporting the view that multimedia learning is more effective than traditional text-based approaches for special-needs students. (Resti Wiratami et al., 2022)

The results of this study demonstrate that My-SaVes is a feasible and effective learning medium for deaf students, as shown by the positive validation scores and strong student responses. These findings reinforce the theoretical understanding that deaf learners process information primarily through visual channels, requiring clear images, sign-language modeling, and structured visual arrangements to grasp linguistic concepts meaningfully. The strong material and media validation scores indicate that the design principles applied—such as visual clarity, consistent layout, and integration of sign-supported videos—successfully align with the cognitive and communication characteristics of deaf students.

The positive student responses further confirm that interactive, visually rich digital media can increase engagement, reduce learning barriers, and promote independent exploration. Compared with traditional worksheets or teacher-led demonstrations, My-SaVes offers multiple modes of input that benefit memory retention, including repetition, animation, and visual-sign pairing. These findings are consistent with previous studies that highlight the importance of multimodal learning for deaf students, but My-SaVes strengthens earlier conclusions by presenting an integrated platform rather than separate visual or video materials. This integration is important because it supports the formation of stable mental associations between vocabulary items and their corresponding signs, which is crucial for comprehension and long-term retention.

These results are consistent with several previous studies which reported that digital media integrating images and sign-language support improved vocabulary learning among deaf learners. However, this study extends earlier findings by integrating visual materials, sign videos, interactive quizzes, and scoring systems into a single platform, making My-SaVes more comprehensive than earlier applications that focused only on images or simple video demonstrations. This integration contributes to the refinement of existing theories on learning media for deaf students by demonstrating that multi-modal digital tools can strengthen learner autonomy and reduce dependence on teacher explanations.

The findings also imply that learning media for deaf students must prioritize clarity, visual appeal, and interactivity to create meaningful learning experiences. My-SaVes therefore offers a practical contribution for English instruction in special schools and supports the development of more inclusive learning environments. The results reinforce existing knowledge while providing an improved framework for future media development tailored to the unique characteristics of deaf learners.

CONCLUSION

This study concludes that My-SaVes successfully addresses the need for accessible and visually oriented English vocabulary learning media for deaf students. The development process produced a digital tool that enables learners to understand vocabulary through clear visuals, sign-supported videos, and interactive activities, allowing them to engage more independently and meaningfully with the material. The findings confirm that visually rich and multimodal media can strengthen comprehension, increase motivation, and support inclusive learning practices for students with hearing impairments. (Santhanasamy & Yunus, 2022)

The study also demonstrates that integrating multiple visual and interactive elements into a single platform offers advantages beyond previous media, providing a more complete and supportive learning environment. Although the results show strong feasibility and positive student responses, the product remains limited to selected vocabulary topics and small-scale classroom implementation. Future research may expand My-SaVes by adding broader language content, testing the media across different grade levels and schools, and integrating adaptive features that respond to individual learner needs. (Pakula, 2019)

Overall, the development of My-SaVes contributes to improving English learning for deaf students and provides a promising foundation for further innovation in digital learning media for special education.

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