



Interactive Hybrid Book for Inclusive Reading Activities

Kevin Dwi Pradana, Universitas Pendidikan Ganesha, Indonesia

I G A Lokita Purnamika Utami, Universitas Pendidikan Ganesha, Indonesia

I Ketut Trika Adi Ana, Universitas Pendidikan Ganesha, Indonesia

Abstract

This study aims to develop an interactive hybrid book that integrates text, images, and sign language as a learning medium to facilitate English reading activities in inclusive classrooms. Specifically, the study seeks to identify the types of English reading materials needed by inclusive students, design an interactive hybrid book adapted to these needs, evaluate the validity of the content and media, and assess the practicality of the developed product. The study employed the ADDIE model, which consists of Analysis, Design, Development, Implementation, and Evaluation phases. The research instruments included interview guides for needs analysis, interviews with teachers and students, a researcher's journal, a product development progress sheet, expert judgment sheets for content and media validation, and practicality questionnaires. The results of the needs analysis revealed that inclusive students require visually engaging reading materials that incorporate multimodal elements, such as sign language, subtitles, and interactive features, to support their reading activities. The interactive hybrid book was designed in alignment with the Merdeka Curriculum and the principles of differentiated learning, ensuring accessibility and the reinforcement of Pancasila values. The expert validation results indicated that the product achieved an average score of 4.30 from content experts and 4.54 from media experts, both of which fall into the "very good" category. Furthermore, the practicality test results showed average scores of 4.39 from students and 4.75 from teachers, indicating that the interactive hybrid book is practical and effective as a learning medium for facilitating English reading activities in inclusive classrooms.

Keywords: English; Reading; Hybrid; Inclusive

Corresponding: kevin.dwi@undiksha.ac.id

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1. Introduction

Reading plays a fundamental role in expanding learners' knowledge, developing critical thinking, and supporting academic success. In language learning, reading is a key skill that contributes not only to vocabulary development but also to the improvement of grammar, writing, and speaking abilities (Ferdiawan et al., 2021; Yuliantari et al., 2021). In the Indonesian context, English is learned as a foreign language, yet it holds significant importance as a global language used in education, international communication, and the world of work. Frequent exposure to English reading materials helps students become familiar with language



structures and enables them to think more naturally in English, thereby strengthening overall English literacy skills (Zein, 2019).

Despite its importance, fostering students' interest in reading remains a challenge. Reading literacy is closely related to students' motivation and the availability of engaging learning materials. Studies have shown that students are more motivated to read when materials are visually attractive and include images or interactive elements, as these reduce boredom and increase engagement (Adam et al., 2022; Setiawan et al., 2022; Strouse et al., 2018). In today's digital era, students are increasingly exposed to diverse reading content through the internet, which offers more varied and appealing materials compared to conventional textbooks (Mudra, 2020). This shift highlights the growing importance of digital literacy, which enables students to access, evaluate, and filter information effectively in an information-rich environment (Choo & Li, 2017). Digital literacy has become an integral part of educational development in Indonesia, driven by technological advancement and its integration into learning practices (Aryasandy et al., 2025).

However, the implementation of digital literacy in schools is uneven. Some schools, particularly those in rural or remote areas, still rely on traditional teaching methods and restrict the use of digital devices due to concerns about classroom disruption (Dimitrios et al., 2013). Limited infrastructure, such as a lack of computers and digital learning media, further constrains the use of technology to support literacy development (Artini et al., 2025). These challenges are even more pronounced in inclusive schools that serve students with special needs, including students with hearing and speech impairments.

Previous studies consistently indicate that interesting and interactive learning materials can significantly increase students' interest in reading, including in inclusive education settings (Wu et al., 2023). Research on school literacy movements in inclusive elementary schools has revealed that supportive learning environments and attractive reading materials are essential, yet obstacles such as limited resources, inadequate facilities, and low student motivation—particularly among deaf students—remain prevalent (Prawira et al., 2023; Siyanova-Chanturia & Webb, 2016). Other studies have demonstrated the effectiveness of digital media, such as e-books, pop-up books, and digital libraries, in enhancing students' reading motivation and accessibility to learning materials (Khotimah & Wahyu, 2019; Ratminingsih & Budasi, 2020). Nevertheless, empirical research that specifically investigates the design, implementation, and effectiveness of inclusive digital reading media tailored for deaf students, particularly within English as a Foreign Language contexts, remains notably scarce and underdeveloped.

One example of an inclusive educational setting is SDN 2 Bengkala in Bali, an inclusive elementary school that has implemented inclusive education practices since 2007. The school accommodates both regular students and students with hearing and speech impairments and applies a co-teaching model in which one teacher delivers oral instruction while another support learning through sign language. Despite these efforts, students—especially deaf students—continue to face difficulties in reading English texts. Conventional reading materials often fail to accommodate their communication needs, resulting in low reading interest and limited comprehension.

For deaf students, reading instruction requires approaches that go beyond traditional text-based methods. The use of sign language, visual supports, illustrations, and assistive



technologies is essential to make reading materials accessible and meaningful (Grøver et al., 2023; Hussein & Al-bayati, 2022). Multisensory and multimodal learning approaches, which integrate visual, textual, and interactive elements, have been shown to enhance comprehension and engagement for students with hearing impairments (Ganapathy & Seetharam, 2016; Shams & Seitz, 2008). Collaboration between general teachers and special education specialists is also crucial in designing inclusive literacy programs that address diverse learning needs.

In response to these challenges, this study proposes the development of an interactive hybrid book as a learning medium to facilitate English reading activities for inclusive classrooms, particularly for deaf students at SDN 2 Bengkala. The interactive hybrid book integrates text, images, and sign language to provide multimodal support that enhances accessibility, comprehension, and reading motivation. This study provides an inclusive and engaging digital reading medium that directly addresses students' literacy needs and the limitations of existing learning resources, thereby advancing equitable access to learning and fostering more meaningful reading experiences for deaf students.

2. Method

This study employed a Research and Development (R&D) approach, which is commonly used to develop educational products and examine their validity, practicality, and effectiveness. In educational research, R&D focuses on systematically designing, developing, testing, and refining learning products to ensure their appropriateness for instructional use. To guide the development process, this study adopted the ADDIE instructional design model, consisting of Analysis, Design, Development, Implementation, and Evaluation stages (Branch, 2009). The ADDIE model was selected because it provides a clear, systematic, and practical framework that aligns well with R&D principles, particularly in the development of instructional media for inclusive education. The development procedure based on ADDIE is summarized in Table 1.

Table 1. ADDIE Procedure

Stage	Focus
Analyze	<ol style="list-style-type: none">1. Document analysis to identify the Annual Program, Learning Objectives Flow, Learning Outcomes, Semester Program, Teaching Modules, and Student Worksheets, to identify curriculum requirements and learning objectives.2. Teacher and student interviews to explore challenges, learning needs, and existing reading practices in inclusive classrooms3. Classroom observations to examine real learning conditions, teaching strategies, and student engagement during reading activities.4. Documentation to collect supporting data related to school facilities and existing learning media.
Design	<ol style="list-style-type: none">1. Designing the learning scenario, content organization, and instructional flow.2. Selecting multimodal elements, such as sign language videos, translated texts, illustrations, animations, and narration, to support inclusive learning.3. Developing a blueprint for expert judgment, which would be used to evaluate content and media validity.



	4. Designing evaluation instruments, including expert validation sheets and practicality questionnaires for teachers and students.
Development	<ol style="list-style-type: none">1. Producing the interactive hybrid book as an English reading learning medium.2. Integrating visual and audio components, including sign language, subtitles, illustrations, animations, and interactive navigation.3. Adding interactive features, such as quizzes, exercises, and simple gamification elements, to enhance engagement.4. Conducting expert validation, involving content experts and media experts to assess material accuracy, accessibility, and instructional quality.5. Revising the product based on expert feedback to improve clarity, usability, and inclusiveness.
Implementation	<ol style="list-style-type: none">1. Preparing teachers and students to use the hybrid book.2. Implementing the hybrid book during English reading lessons.3. Observing classroom use and student interaction with the media.4. Collecting feedback through practicality questionnaires completed by teachers and students.5. Identifying challenges encountered during classroom implementation.
Evaluation	<ol style="list-style-type: none">1. Expert evaluation, focusing on content validity and media quality using expert judgment sheets.2. Practicality testing, measuring ease of use, usefulness, attitudes, and acceptance based on teacher and student responses.3. Analyzing evaluation results to make final revisions to the hybrid book.

Setting and Participants

This research was conducted at SDN 2 Bengkala, an inclusive elementary school that integrates students with special needs and regular students within the same learning environment. The school applies inclusive education practices by accommodating students with diverse learning characteristics, including those with hearing and speech impairments, through collaborative teaching strategies. The research setting was chosen because it reflects real conditions of inclusive classrooms where instructional media must address varied learning needs simultaneously. The research subjects consisted of one sixth-grade classroom teacher, one sign language teacher, and eight students enrolled at SDN 2 Bengkala. The focus of this research was the developed interactive hybrid book, designed and implemented as a learning medium to support English reading activities within this inclusive educational setting.

Data Collection

Data in this study were collected using several techniques. Structured interviews were conducted with teachers and students to identify learning needs, challenges, and their perceptions of the use of the hybrid book in English reading activities. In addition, document analysis was carried out by examining existing curricula, textbooks, and teaching materials to identify gaps and limitations in current English reading instruction, particularly in inclusive classrooms. Expert judgment was employed by involving content and media experts to evaluate the validity, clarity, and suitability of the developed hybrid book as an instructional medium. Finally, close-ended questionnaires based on the Technology Acceptance Model (TAM 3) were distributed to teachers and students to assess the practicality, ease of use, and usefulness of the hybrid book in supporting English reading activities.



Data Analysis

A qualitative analysis was conducted on data obtained from interviews, observations, and document analysis using the interactive data analysis model proposed by Miles et al., (2014). The questionnaire responses were initially collected in written form and then converted into descriptive narrative form to facilitate qualitative interpretation. Data from expert judgment, including evaluations from content and media experts, as well as the practicality questionnaires, were analyzed quantitatively by calculating the mean scores for each assessed aspect to determine the overall quality of the product. The mean scores were then categorized using a classification table based on the theoretical ideal reference assessment framework proposed by Nurkencana and Sunartana (1992).

3. Findings

Types of Reading Media Needed by Inclusive Students at SDN 2 Bengkulu

Based on interviews conducted with the fourth-grade teacher, inclusive classroom teachers, and fourth-grade students at SDN 2 Bengkulu, it was found that students prefer reading materials that are highly visual in nature. Most students expressed a strong interest in learning media that use images and videos, as these formats are easier to understand and more engaging. Teachers reported that the learning media they commonly use are simple, easy to understand, and practical for classroom implementation. Students also showed greater enthusiasm when teachers used technology-based learning media, such as laptops, tablets, and LCD projectors.

Teachers frequently utilize YouTube as a learning resource because it provides a wide range of visual learning materials that attract students' attention and increase engagement. To support technology-assisted learning, SDN 2 Bengkulu has provided several tablets and laptops, allowing students to access digital learning materials without needing to bring personal smartphones to school. The school implements the Merdeka Curriculum in its teaching and learning process. In inclusive classrooms, learning activities are conducted in the same classroom for all students, with differences mainly occurring in assessment methods rather than instructional delivery.

Document analysis and teacher interviews revealed that English learning media for fourth-grade students at SDN 2 Bengkulu mainly consist of curriculum-based teaching modules, including the Program Tahunan (PT), Alur Tujuan Pembelajaran (ATP), Capaian Pembelajaran (CP), Program Semester (PROSEM), and Tujuan Pembelajaran (TP) developed under the Merdeka Curriculum. These modules primarily contain text and static images and focus on daily activity topics. While such materials are generally suitable for regular students, they provide limited interactivity and engagement for students with hearing and speech impairments.

Observations and interview findings indicate that these curriculum modules are less effective for deaf and mute students because they do not include sign language support or dynamic visual elements. Students with hearing impairments require learning media that offer attractive visuals, sign language, and interactive features to support comprehension and sustain engagement. For this reason, further interviews were conducted with the sign language teacher



and fourth-grade students to explore their preferences regarding suitable learning media. The results showed that students preferred digital media featuring animated cartoons, colorful visuals, audio, and content related to daily life activities.

Overall, it was found that the inclusive fourth-grade class at SDN 2 Bengkala requires digital reading media featuring engaging visual designs, animated illustrations, and integrated sign language support. The media should also be aligned with the Merdeka Curriculum and compatible with the school's available facilities, such as laptops and LCD projectors. In response to these needs, this study developed an interactive hybrid book that integrates text, images, and sign language, focuses on daily activity topics, and is specifically designed to support English reading activities in the inclusive fourth-grade classroom at SDN 2 Bengkala.

Learning Objectives, Teaching Strategies, Assessment, Lesson Plan in the Merdeka Curriculum

The learning objectives in the Merdeka Curriculum emphasize student-centered education that fosters critical thinking, creativity, collaboration, and problem-solving skills. The curriculum encourages student independence and adaptability through real-world, project-based learning and interdisciplinary approaches that connect different subjects to create meaningful learning experiences. In addition, character development is promoted by integrating values such as cooperation, responsibility, and social awareness into classroom activities.

Teaching strategies within the Merdeka Curriculum adopt a flexible and differentiated approach that accommodates students' diverse abilities and learning paces. Teachers are encouraged to implement inquiry-based learning, collaborative activities, and experiential learning to actively engage students in the learning process. The integration of digital technology is also emphasized to enhance student engagement and provide access to varied and interactive learning resources. Assessment in the Merdeka Curriculum prioritizes formative and authentic evaluation methods rather than standardized testing. Continuous assessment, self-reflection, and portfolio-based documentation are used to monitor student progress and support personalized learning. Teachers provide constructive feedback to guide improvement, while authentic assessments—such as performance tasks, real-world problem-solving activities, and peer assessment—are employed to measure students' practical application of knowledge. The lesson plan based on the Merdeka Curriculum is designed using a competency-based approach that emphasizes not only the acquisition of theoretical knowledge but also the development of critical thinking, problem-solving, and collaboration skills. Each lesson is aligned with graduate competency standards and focuses on practical applications and real-world relevance. To accommodate diverse learning styles, the lesson plan incorporates various teaching media, including PowerPoint presentations, posters, digital whiteboards, educational videos, and online learning platforms. Learning activities are supported by hands-on tasks such as interactive worksheets, project-based assignments, case studies, and role-playing activities to enhance student engagement. In addition, digital tools such as Kahoot, Quizizz, and Google Classroom are utilized to create interactive learning experiences.

The lesson plan promotes student-centered learning, positioning teachers as facilitators who guide students in constructing their own understanding. Students are encouraged to ask



questions, conduct simple research, and engage in peer discussions. Instructional strategies such as problem-based, collaborative and inquiry-based learning are employed to foster active participation. An active learning approach is emphasized through group discussions, debates, presentations, simulations, and subject-specific activities, including storytelling and role-playing in language learning. Technology integration supports digital literacy and research skills, while reflection activities allow students to evaluate their learning progress and enable teachers to adjust instructional strategies. Overall, the lesson plan framework supports an inclusive, engaging, and technology-integrated learning environment aligned with the principles of the Merdeka Curriculum.

Design and Layout of Hybrid book for Inclusive class

The hybrid book was designed using the ADDIE model with a strong focus on inclusivity, accessibility, and alignment with the Merdeka Curriculum. The design supports student-centered and differentiated learning while developing essential competencies such as critical thinking, creativity, collaboration, and character education. Pancasila values, including respect, cooperation, responsibility, and tolerance, are embedded through thematic content, stories, and interactive activities that promote moral and civic awareness.

To accommodate diverse learning needs, the hybrid book applies principles of differentiated learning by providing multimodal content through visual elements (images and illustrations), auditory support (audio narration), and interactive features. Accessibility is prioritized through the integration of sign language videos, readable fonts, high-contrast visuals, simplified language, and text-to-speech options, ensuring usability for students with hearing impairments, visual impairments, learning difficulties, and mobility limitations. The hybrid book is compatible with various devices and can be accessed offline to support schools with limited internet connectivity.

The content is organized into clear sections, beginning with an introduction followed by main topics presented in small, manageable units. Interactive quizzes and activities are embedded to reinforce understanding, supported by multiple assessment formats such as multiple-choice and short-answer questions. The design features intuitive navigation with clear icons and buttons, vibrant yet purposeful visuals, and a glossary to support vocabulary development. Customization options, including font size, color contrast, and audio settings, allow students to personalize their learning experience, making the hybrid book an accessible and effective learning medium for inclusive classrooms.

Table 2. Design and Layout

Section	Description
Cover Design	Engaging and colorful visuals to capture attention. The title and main theme of the hybrid book are clearly displayed for easy recognition.
Introduction Page	Provides a clear introduction to the hybrid book's content, explaining how to use it and providing navigation instructions in simple language.
Learning Objective	Simple and straightforward goals of the lesson presented with accompanying images to ensure clarity and understanding of what the students will learn.
English Reading Activities	A variety of activities focusing on vocabulary building, sentence comprehension, and reading exercises, with interactive quizzes to reinforce learning.



Sign Language Integration	Incorporates HandTalk for real-time sign language translation of key words and phrases, ensuring inclusivity for students with hearing impairments.
Interactive Element	Engaging exercises like clickable questions, image-based tasks, and activities that allow for hands-on learning and participation.
Audio Narration	Optional clear English narration with subtitles in both English and Indonesian, along with synchronized sign language for better accessibility.
Back Cover	Provides developer information, copyright details, and contact information for further inquiries.

Development

The development of English learning materials for the inclusive hybrid book focused on transforming the design into a fully functional and accessible product that meets the needs of all students, including those with visual and hearing impairments. This stage emphasized the integration of interactive elements, multimedia features, and accessibility tools through a systematic development process. The process began with the selection of an appropriate digital platform capable of supporting multimedia integration, customization options, and interactive features. Platforms that allowed adjustments to font size, color contrast, and the inclusion of audio, video, and quizzes were prioritized to ensure accessibility. After the platform was selected, the layout and structure of the hybrid book were designed to be user-friendly and inclusive, featuring a clear cover page, table of contents, well-organized content pages, and intuitive navigation to support smooth learning flow.

Content creation involved developing clear and concise English learning materials aligned with learning objectives and organized into small, manageable sections. Visual supports such as images, diagrams, and videos were integrated to reinforce comprehension. To support students with hearing impairments, sign language videos were embedded to explain key vocabulary and concepts, while interactive activities such as quizzes and drag-and-drop exercises were included to promote active engagement, accessibility features were then incorporated, including text-to-speech functions, adjustable font sizes, high-contrast color settings, and audio narration with subtitles in both English and Indonesian. These features were designed to support students with visual impairments, reading difficulties, and diverse language backgrounds. The hybrid book was subsequently tested to ensure that all interactive elements, navigation tools, and accessibility features functioned properly across different devices, such as laptops and tablets. The final step involved refining and finalizing all accessibility options to allow users to customize the hybrid book according to their individual needs, ensuring an inclusive and effective learning medium for English reading activities.



Figure 1. Book Content

Evaluation

Based on the analysis using Nurkancana and Sunartana's evaluation theory, the interactive hybrid book obtained an average expert score of 4.30, which falls into the "Very Good" category. This result indicates that the product demonstrates high quality in terms of structure, contextual relevance, language accessibility, examples, interactivity, visual design, learning tasks, collaborative learning support, and feedback mechanisms. The findings confirm that the interactive hybrid book meets established quality standards and is suitable for implementation in learning activities. Nevertheless, minor improvements are recommended in aspects that received slightly lower scores, particularly in the areas of structure and learning tasks, to further optimize the effectiveness of the product. Overall, the expert evaluation provides important input for refining the hybrid book prior to wider implementation. In the context of this research, expert judgment is a crucial step for determining product feasibility before field trials with users. The application of Nurkancana and Sunartana's theory ensures a systematic and objective evaluation process, supporting accurate interpretation of results and evidence-based development decisions. From media experts, the product achieved an average score of 4.538, placing it in the "Very Good" category. This result indicates that the interactive hybrid book effectively integrates Pancasila values into student learning activities. Nevertheless, several aspects—particularly the representation of humanity in peer interactions, the reflection of justice in learning strategies, and the inclusion of feedback mechanisms to support teaching improvement—can still be refined to enhance the overall quality of the media. Overall, this evaluation provides valuable input for further revision and optimization of the interactive hybrid book before its wider implementation in educational settings.

The product practicality evaluated by experts obtained an average score of 4.39, which falls into the "Very Good" category. This indicates that the interactive hybrid book demonstrates high quality in terms of usability, effectiveness, student engagement, and accessibility within a blended learning environment. The results suggest that the book is well structured, easy to navigate, and effective in supporting students' understanding of the learning material. Students reported that the interactive hybrid book was engaging and helpful in



enhancing their learning experience. Nevertheless, minor improvements are recommended to better support students who require additional guidance or more structured explanations. Overall, these findings provide a strong foundation for further refinement of the product to maximize its impact on student learning. Future research may involve broader trials with larger student groups or longitudinal studies to examine the sustained effectiveness of the interactive hybrid book.

4. Discussion

The needs analysis revealed that inclusive students, particularly those with hearing and speech impairments, require English reading media that are highly visual, accessible, and interactive. Observations and interviews with teachers and students indicated a strong preference for learning materials that incorporate sign language, images, animations, subtitles, and daily-life themes to support comprehension. Traditional textbooks were considered insufficient because they lack multimodal features and do not adequately address the diverse learning needs present in inclusive classrooms. These findings are consistent with Bus et al., (2015) who reported that visual-based learning significantly enhances literacy skills among students with special needs. Similarly, Parault and Williams (2010) highlighted low reading motivation among deaf students due to limited availability of adapted and engaging learning materials. These identified needs formed the basis for developing a hybrid book that accommodates multiple sensory inputs and learning preferences.

The hybrid book was developed using the ADDIE model to ensure a systematic and iterative design process. During the design and development stages, multimodal elements—including sign language videos, narrated texts, illustrations, animations, and interactive quizzes—were integrated to address students' needs. The layout was designed to be visually clear and intuitive to support ease of navigation for both regular and deaf students. In addition, the hybrid book was aligned with the Merdeka Curriculum and embedded Pancasila values, integrating character education alongside language learning. This approach extends the work of Widyastuti and Sari (2021), whose hybrid book design did not fully integrate sign language or interactive features tailored to specific inclusive contexts. By contrast, the present study offers a more context-sensitive and accessible design specifically developed for SDN 2 Bengkala.

Expert validation results demonstrated that the hybrid book achieved high quality, with average scores of 4.30 from content experts and 4.538 from media experts, both categorized as “very good.” Experts acknowledged the clarity, relevance, and structure of the product, while suggesting minor improvements related to layout simplicity and the pacing of sign language interpretation. Practicality testing further supported these findings, with students awarding an average score of 4.39 and teachers 4.75. Students reported that the hybrid book was engaging, easy to use, and helpful for independent comprehension, while teachers confirmed its effectiveness in supporting differentiated instruction for both regular and special needs students. Compared to earlier studies focusing mainly on e-books, this hybrid book



demonstrates greater adaptability and accessibility through the integration of sign language and interactive learning pathways.

In comparison with previous research, the hybrid book developed in this study provides more comprehensive accessibility features. While studies showed that e-books and audiobooks increased reading motivation and comprehension, they offered limited support for students with hearing impairments. The inclusion of sign language interpretation, synchronized subtitles, animations, and moral values makes this hybrid book more inclusive. Despite several challenges during development—such as synchronizing sign language videos with text and integrating multimedia features into a single platform—these issues were addressed through repeated revisions and interface redesign. These challenges align with findings by Saharudin et al. (2022), who emphasized the complexity of developing inclusive digital media. Nevertheless, the final product effectively bridges technical and pedagogical gaps, offering a scalable model for inclusive English reading instruction.

The findings of this study have important implications for educators, curriculum developers, and students. The high usability and clarity of the hybrid book indicate its potential to support self-directed learning, allowing students to engage with reading materials at their own pace. For teachers, the hybrid book can function as a supplementary instructional resource that supports differentiated learning and reduces the need for constant direct supervision. The interactive features also enhance student engagement and reinforce comprehension.

5. Conclusion and Suggestion

This study aimed to develop an interactive hybrid book to facilitate English reading activities in an inclusive classroom at SDN 2 Bengkala, particularly for students with hearing and speech impairments. Based on the results of data analysis and evaluation, several important conclusions can be drawn. First, the needs analysis indicated that inclusive students require English reading media that are visually engaging, accessible, and contextually relevant. Students showed a strong preference for materials incorporating images, animations, sign language, and subtitles to support comprehension, while teachers emphasized the importance of media that accommodate diverse learning styles and overcome communication barriers in inclusive classrooms. Second, the hybrid book was systematically designed using the ADDIE model. It integrates multimodal components such as text, sign language videos, images, audio narration, animations, and interactive quizzes. The design reflects principles of differentiated learning, aligns with the Merdeka Curriculum, and embeds Pancasila values, ensuring that the product is pedagogically relevant, inclusive, and adaptable to diverse learner needs. Third, expert validation confirmed the high quality of the product. The hybrid book received “very good” ratings from content experts (4.625) and media experts (4.538). Practicality testing also produced high scores from students (4.4375) and teachers (4.5), indicating that the product is user-friendly, engaging, and effective in supporting independent and differentiated learning. Students reported improved understanding and motivation, while teachers valued its flexibility and effectiveness in inclusive instructional settings.



Based on these findings, the interactive hybrid book demonstrates potential as a supplementary digital learning medium to enhance student engagement and participation in inclusive English reading activities. The integration of interactive features, such as quizzes, videos, and games, appears to support active learning, while structured guidance and collaborative tasks contribute to more inclusive classroom interaction. The findings also indicate that successful implementation is influenced by the availability of adequate digital facilities and teachers' readiness to utilize hybrid learning media effectively. Furthermore, the results suggest the need for broader institutional and policy support to ensure equitable access to digital learning resources, particularly for schools in rural and disadvantaged areas. Future research may further investigate the long-term impact of interactive hybrid books on learning outcomes and explore their application across different subjects, grade levels, and inclusive educational contexts.

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