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DEVELOPING MULTIMEDIA-BASED ENGLISH LEARNING MATERIALS FOR STUDENTS WITH INTELLECTUAL DISABILITIES IN SPECIAL NEEDS SCHOOLS: A NEEDS ANALYSIS AND INSTRUCTIONAL MATERIAL EVALUATION

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Abstract
This study investigates the instructional needs for developing multimedia-based English learning materials tailored to seventh-grade students with intellectual disabilities in Special Needs Schools (SLB) in Jakarta. Using a descriptive qualitative design and triangulated data sources, the research involved semi-structured interviews with ten SLB teachers, an evaluation of the textbook Dare to Speak English, and an analysis of instructional materials currently used by teachers. Findings highlight the critical need for materials that integrate text, visuals, audio, and interactive features to support students' comprehension of abstract concepts and promote memory retention. Teachers emphasized that such multimedia components are essential, not supplementary, and that interactivity—through games, quizzes, simulations, and feedback systems enhances engagement and learning effectiveness. However, significant gaps remain in terms of consistency, adaptability, and digital integration across existing materials. The evaluated textbook, while aligned with the curriculum and content quality, lacks technological features and interactive elements necessary for inclusive education. The study concludes that the development of multimedia-based instructional materials must be inclusive, adaptive, flexible, and technologically supported to ensure equitable and effective learning outcomes for students with intellectual disabilities. These findings serve as a foundation for future instructional design that meets the demands of inclusive, digital-age pedagogy in special education contexts.
Keywords: Multimedia Learning Materials, Intellectual Disabilities, Learning Material Development, Needs Analysis.

1. INTRODUCTION

Students with intellectual disabilities (ID) represent a diverse group of learners characterized by below-average intellectual functioning and limitations in adaptive behavior, including communication, self-care, and social skills (Boluarte Carbajal et al., 2024; Shree, 2020). In educational contexts, these students frequently encounter complex learning challenges due to deficits in cognitive processing, attention span, memory retention, and language comprehension, (Kizilaslan & Tunagur, 2021). These characteristics make traditional forms of instruction inadequate for meeting their learning needs, particularly in language acquisition, which demands high levels of abstract reasoning and memory.

Language learning, especially a foreign language such as English, poses additional difficulties for students with intellectual disabilities. The abstract nature of grammar, vocabulary, and pronunciation often exceeds their cognitive thresholds, necessitating instructional designs that are highly concrete, simplified, and repetitive (Hossain, 2024; Tayaa Karima & Souhila Hellalet, 2022). Research has shown that learners with intellectual disabilities benefit from structured environments, predictable routines, and highly visual and ditory instructional materials that compensate for their cognitive limitations.

One of the most critical strategies for addressing these barriers is the development and use of instructional materials that are not only simplified in content but also incorporate multisensory modalities. Multisensory learning engaging visual, auditory, tactile, and kinesthetic senses—has proven to significantly enhance information processing and retention among students with special needs (Busari et al., 2025; Fujita, 2024). Therefore, the incorporation of multimedia elements such as images, narration, animations, and interactive activities become not special things, but a necessity in special needs education, (R. E. Mayer, 2024; Ong, 2024). This approach ensures that abstract concepts can be represented in more tangible and comprehensible forms, helping students build meaningful connections with the content.

Despite growing awareness of these pedagogical imperatives, many instructional materials currently in use in Special Needs Schools (Sekolah Luar Biasa, or SLB) remain conventional in nature. These materials are often adapted from regular curriculum textbooks with minimal modifications. As a result, they lack the technological

features, interactivity, and flexibility needed to meet the diverse and dynamic needs of students with intellectual disabilities. The absence of digital integration in these materials not only reduces their accessibility but also limits opportunities for personalized, engaging, and inclusive learning experiences, (Bajaj, 2024; Haleem et al., 2022).
Several studies have highlighted the importance of digital technology in special education, not merely as a tool for engagement but as a medium for differentiated instruction and accessibility. For students with intellectual disabilities, technology can provide assistive functions such as voice narration for non-readers, visual symbols for abstract words, and instant feedback for interactive tasks that directly support their learning processes, (Erdem, 2017; Rizk & Hillier, 2022). Thus, the lack of technological integration in existing materials raises a significant concern regarding educational equity and effectiveness in SLBs.
Moreover, instructional materials that are not tailored to the specific cognitive and sensory profiles of learners with ID risk being not only ineffective but also demotivating. Poorly designed materials that overwhelm students with excessive text, lack visual cues, or do not provide scaffolding for tasks can result in cognitive overload and disengagement. Conversely, materials that are engaging, interactive, and contextually relevant have been found to foster not only better understanding but also a more positive attitude toward learning (Kamran et al., 2023; Mazana et al., 2019).
In line with these observations, it becomes evident that a comprehensive needs analysis is essential before developing or revising instructional materials for students with intellectual disabilities. Needs analysis in this context refers to the systematic process of identifying the specific requirements, challenges, and preferences of both learners and educators, (Nazwa Maulani Dewi & Amariah, 2023; Songhori, 2016). This involves understanding the existing limitations of currently used materials, gathering input from teachers who interact daily with the target students, and evaluating how well the materials support intended learning outcomes. The goal of conducting such a needs analysis is to ensure that the resulting instructional materials are not merely compliant with curricular standards but are also pedagogically sound, technologically relevant, and accessible to learners with diverse needs, (Irfadila & Noprika, 2022; Maisarah & Nirwanto, 2024). It also provides empirical justification for adopting or rejecting particular design approaches, ensuring that the final products are both context-sensitive and evidence-based.
This study therefore aims to examine the instructional needs for developing multimedia-based English learning materials specifically for seventh-grade students with intellectual disabilities in SLB. The research focuses on three core activities. First, it explores teacher perceptions through semi-structured interviews with ten educators from various SLB in Jakarta. These teachers offer invaluable insights into the everyday realities of teaching English to students with ID, including their observations on student engagement, comprehension, and responsiveness to different instructional modalities.
Second, the study involves a critical evaluation of an existing textbook Dare to Speak English that is commonly used in SLB contexts. This analysis is conducted using a checklist-based evaluation instrument that measures several dimensions such as curriculum alignment, content quality, technological integration, inclusivity, and interactivity. The objective is to assess whether such a resource is adequately responsive to the needs of students with intellectual disabilities or if it requires significant revision.
Third, the research analyzes the learning materials currently used by SLB teachers in practice. These materials may include teacher-made PowerPoint slides, worksheets, digital games, and audio-visual content. The aim is to identify existing strengths and gaps, particularly in the domains of content delivery, practice activities, and assessment strategies. Special attention is paid to the extent of multimedia usage, level of interactivity, accessibility features, and how well the materials align with inclusive education principles.
The triangulation of data from these three sources—teacher interviews, textbook analysis, and evaluation of teaching materials—ensures that the study provides a comprehensive and balanced understanding of the current landscape. It also allows for the formulation of practical and contextually grounded recommendations for future material development. By closely aligning the instructional design with the characteristics of students with intellectual disabilities, it is hoped that these materials will contribute not only to better academic outcomes but also to more inclusive, engaging, and equitable learning environments.
In conclusion, the introduction of multimedia-based instructional materials in special needs education should no longer be viewed as an optional enhancement but as a foundational requirement for effective and inclusive pedagogy. As the educational system increasingly moves toward universal design and personalized learning, it is imperative that students with intellectual disabilities are not left behind. Instead, they should be at the forefront of innovation, receiving the tailored support they need to succeed academically and socially. This study, by identifying and addressing the specific needs related to English language learning in SLBs, aims to lay the groundwork for such innovation.

2. LITERATURE REVIEW

2.1 Students with Intellectual Disabilities and Language Learning

Students with intellectual disabilities (ID) often demonstrate cognitive functioning significantly below the average for their age group, along with deficits in adaptive behavior. These characteristics create challenges in various domains of learning, particularly in language acquisition. According to (Hepsiba and Raju, 2017; Saad, 2019), intellectual disability is defined by impairments in reasoning, problem-solving, planning, abstract thinking, judgment, academic learning, and learning from experience. Consequently, such students struggle to process

abstract concepts, retain new information, and apply language rules in novel contexts skills that are essential in mastering a foreign language such as English. Foreign language learning, by nature, involves acquiring a range of skills listening, speaking, reading, and writing that depend heavily on memory, sequencing, and abstract representation, (Kormos & Safar, 2014). For students with ID, this complexity often results in low motivation, high anxiety, and limited progress in traditional classrooms that do not cater to their specific needs. Westling and Fox (2009) emphasize that instruction for students with ID must be explicit, concrete, and repetitive, with scaffolded support and continuous reinforcement.

The importance of differentiated instruction in teaching English to students with intellectual disabilities cannot be overstated. This population benefits from predictable routines, visual cues, simplified vocabulary, and the integration of real-life contexts into the learning materials, (Chung, M.A, 2023; Macdonald et al., 2018). Instead of traditional grammar-focused methods, teachers are encouraged to adopt communicative approaches that prioritize functional language use and engagement. Studies have also highlighted the significance of visual support, including pictorial dictionaries, flashcards, realia, and context-driven visuals that help students anchor meaning and associate language with experience.

Moreover, students with intellectual disabilities require more time and structured practice to develop language proficiency. The use of gestures, facial expressions, and visual schedules can support comprehension, (Guevara & Rodríguez, 2023). Teachers must also provide consistent feedback and use formative assessments to track small learning gains. Ultimately, the learning environment must foster a sense of competence, safety, and inclusion for these students to thrive in acquiring a second language.

2.2 Multimedia in Students with Intellectual Disabilities

Multimedia technology has emerged as a powerful tool in supporting the education of students with intellectual disabilities. This group of learners often experiences significant challenges in processing abstract information, maintaining attention, and retaining learned material, (Cicekci & Sadik, 2019; Jacob et al., 2021). The integration of multimedia elements such as text, visuals, audio, animations, and interactive components enables educators to present instructional content through multiple sensory modalities, thereby enhancing accessibility, comprehension, and engagement. For students with intellectual disabilities, multimedia not only helps to concretize abstract concepts but also facilitates differentiated instruction and increases motivation, (Ann-Katrin Swärd & Anders Karlsson, 2020; Shabiralyani et al., 2015).

The pedagogical rationale for using multimedia with students with intellectual disabilities is grounded in (R. Mayer & Barbara, 2016), which emphasizes the role of dual-channel processing. This theory asserts that learners process verbal and visual information through separate channels and that combining the two leads to deeper learning, (Alshaikh et al., 2024). This approach is particularly effective for students with cognitive impairments, who may struggle with language-based instruction alone. By combining visual representations with spoken or written text, educators can reduce cognitive overload and provide alternative pathways for understanding.

In the specific context of teaching English to students with intellectual disabilities, multimedia offers various applications that cater to their learning needs. For instance, vocabulary can be introduced through animated flashcards accompanied by sound effects to strengthen word recognition. Grammar can be reinforced through interactive games, while listening skills can be nurtured through audio-narrated stories or dialogues, (Fauzi et al., 2024; Parsayi & Soyoof, 2018). These multimedia tools also enable repetition and self-paced learning key strategies for supporting learners who require more time and exposure to internalize new language structures.

The emotional and motivational benefits of multimedia are equally significant. Many students with intellectual disabilities face frustration and low self-confidence due to repeated academic failures or communication difficulties. Multimedia tools that are interactive, visually engaging, and reward-based can help transform learning into a more enjoyable and meaningful experience (Azlan Abdul Rahman, 2023; Minwuyelet et al., 2024). Gamified activities, colorful characters, and immediate feedback not only sustain attention but also build a sense of achievement and encourage persistence. This is critical in promoting long-term learning motivation and resilience.

Furthermore, multimedia environments can be customized to suit individual learner profiles. Adjustments in text size, font, color contrast, narration speed, and task complexity can enhance accessibility for students with varying cognitive and sensory needs. Assistive features such as text-to-speech engines, symbol-supported reading, closed captions, and interactive glossaries provide additional scaffolding for learners who face challenges in decoding text or following verbal instructions.

Another notable advantage of multimedia for students with intellectual disabilities is its capacity to support inclusive educational practices. Multimedia enables differentiated access to the same learning objectives by offering multiple forms of representation and interaction, (Ekowijayanto, 2024). For example, while one student engages with an animated explanation of a concept, another might access the same content through a simplified audio-visual summary. This flexible delivery model ensures that all students can participate in classroom learning, even if they require different levels of support.

However, the successful implementation of multimedia in classrooms serving students with intellectual disabilities is contingent upon several factors. First, the mere presence of technology is insufficient; the content itself must be designed intentionally to accommodate diverse learning needs. Digitizing a traditional textbook without adapting its structure, language, or engagement strategies will likely yield minimal benefits. Therefore, multimedia learning materials must be crafted with attention to clarity, accessibility, interactivity, and meaningful feedback.

Second, the effectiveness of multimedia use also relies heavily on teacher readiness. Educators must be trained not only in the technical use of multimedia tools but also in digital pedagogy and inclusive instructional design. This

includes understanding how to select, adapt, and implement multimedia materials based on students' individual learning profiles. Professional development programs in this area are essential to build teacher confidence and competence in using technology to support learners with intellectual disabilities.

Finally, institutional support plays a crucial role in the integration of multimedia into inclusive education. Schools must provide adequate infrastructure, technical assistance, and access to high-quality multimedia resources. Collaborative planning among curriculum developers, special educators, and technology specialists can help ensure that multimedia content is aligned with curricular goals and responsive to the specific needs of students with intellectual disabilities.

2.3 Criteria for Inclusive Instructional Materials

Designing instructional materials for students with intellectual disabilities requires careful consideration of pedagogical, technological, and contextual factors. According to (Religioni et al., 2024), high-quality inclusive materials should meet several essential criteria: alignment with curriculum standards, content clarity, accessibility, flexibility, interactivity, and representation of values such as diversity, collaboration, and empathy.

Curriculum Alignment ensures that the materials are educationally relevant and target the expected learning outcomes, (Aquino, 2024). This alignment is particularly important when modifying or creating materials for special education contexts, as it prevents the risk of over-simplification or exclusion from standard achievement benchmarks. At the same time, the materials must be developmentally appropriate and presented in formats that accommodate the learning profiles of students with ID. Content quality involves not only the accuracy and coherence of information but also how well it is adapted to the learner's level, (Nurhayati et al., 2020). Language should be simplified without losing meaning, and concepts should be introduced in small, manageable units. Concrete examples, contextual cues, and visual support should be embedded in the content to enhance understanding. The narrative structure of content should also be predictable and sequential to assist with processing.

Accessibility encompasses both physical and cognitive aspects of access, (KARPANEN, 2021). Materials should be available in multiple formats print, digital, audio compatible with various devices and assistive technologies. Cognitive accessibility involves using plain language, icons, color coding, and consistent layouts to minimize confusion and cognitive load. Features such as audio narration, closed captions, and symbol support can make content accessible to learners with varying reading and language abilities.

Flexibility is critical in accommodating different learning preferences and paces, (Barua & Lockee, 2024; LI, 2014). Instructional materials should allow for adaptation in terms of depth, pacing, and presentation. Modular content that can be reused or reorganized across learning contexts increases the usability of the material. In a classroom with diverse needs, flexibility also means allowing learners to express understanding in different ways, such as through drawing, speaking, or choosing from visual options.

Interactivity is central to engaging students with intellectual disabilities, as it encourages active participation, exploration, and immediate feedback, (Barman & Jena, 2023; Dahlan et al., 2023). Interactive elements such as drag-and-drop tasks, multiple-choice quizzes with sound effects, clickable story components, or gamified progress bars can help maintain student focus and motivation. More importantly, interactivity allows for dynamic assessment, where learners can receive instant feedback and reinforcement, thus promoting self-regulation and metacognitive awareness.

Value Representation refers to the extent to which instructional materials reflect inclusive principles, such as cultural diversity, gender equality, disability representation, and collaborative problem-solving, (Olateju Temitope Akintayo et al., 2024). Materials should avoid stereotypes and include diverse characters and scenarios to ensure students can see themselves reflected in the learning content. Emphasizing cooperation over competition and portraying positive social interactions can foster social-emotional development, which is vital for learners with intellectual disabilities.

Finally, the evaluation of instructional materials is essential to determine their effectiveness in inclusive settings. Teachers and curriculum developers should use structured rubrics to assess whether the materials meet the above criteria, (Olson, 2022). This evaluative process should involve feedback from both educators and learners, ensuring that the materials are not only theoretically sound but also practically beneficial. Iterative refinement based on pilot testing can further improve the accessibility and pedagogical value of the materials.

3. RESEARCH METHODOLOGY

This study employed a descriptive qualitative research design to explore and analyze the instructional needs for multimedia-based English learning materials tailored for students with intellectual disabilities in Special Needs Schools (SLB) in Jakarta, (Furidha & Sidoarjo, 2023). The qualitative approach was selected due to its strength in capturing in-depth insights, subjective experiences, and contextual understanding from participants and instructional artifacts. To ensure the validity and richness of data, the study utilized a triangulation strategy by collecting data through three primary methods: teacher interviews, textbook analysis, and evaluation of teacher-used instructional materials.

The first method involved conducting semi-structured interviews with ten experienced English teachers from different SLBs across Jakarta. The selection of participants was purposive, targeting teachers who had direct teaching experience with students with intellectual disabilities and were actively involved in developing or adapting learning materials. The interviews aimed to explore the teachers' perceptions, experiences, challenges, and expectations regarding the design, use, and effectiveness of multimedia-based English instructional materials.

Open-ended questions were used to allow participants to elaborate on their responses, while guiding questions ensured consistency across interviews. Thematic analysis was applied to interpret the qualitative data, identifying recurring themes and categories related to students' learning characteristics, multimedia integration, and material preferences.

The second data source was a document analysis of the textbook Dare to Speak English by Endah Dwi Hastuti (2020), which is commonly used in SLBs for teaching seventh-grade English. The textbook was evaluated using a structured checklist-based rubric comprising 20 indicators that spanned several evaluation domains: curriculum alignment, content quality, multimedia design, technological integration, inclusivity, and assessment features. Each indicator was assessed to determine whether the textbook effectively addressed the needs of students with intellectual disabilities, particularly in terms of accessibility, simplification of content, and support for multisensory learning. The analysis enabled the researchers to identify both the strengths and limitations of existing printed materials when applied in inclusive education settings.

The third component of the study consisted of evaluating the actual instructional materials currently used by SLB teachers in their classrooms. These materials varied in form, including printed worksheets, PowerPoint presentations, digital applications, and audio-visual tools. A total of 27 indicators were employed in the evaluation process, grouped into three major domains: learning content, practice activities, and assessment strategies. The data were gathered through teacher-completed questionnaires and corroborated through classroom observations, allowing the researchers to assess not only the availability of multimedia features but also how these materials were implemented in real teaching scenarios. Particular attention was paid to aspects such as interactivity, adaptability to students' cognitive levels, accessibility across platforms, feedback mechanisms, and the alignment of materials with inclusive pedagogical principles.

Overall, the triangulated methodology provided a comprehensive understanding of the current state of English instructional materials in SLBs, as well as critical insights into the needs and expectations for future development. By integrating perspectives from practitioners, analyzing formal instructional resources, and examining actual classroom practices, the study aimed to establish a well-rounded foundation for designing more effective, inclusive, and multimedia-rich English learning materials for students with intellectual disabilities.

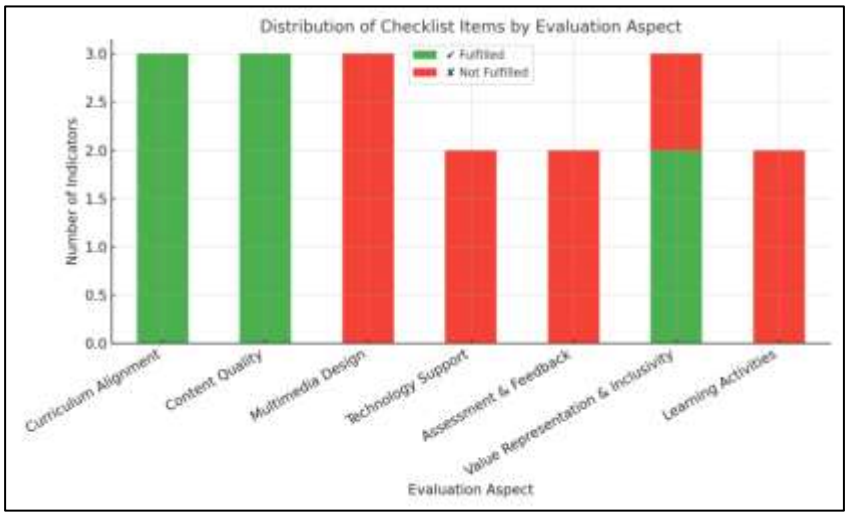
4. FINDINGS AND DISCUSSIONS

The needs analysis in the development of multimedia-based learning materials for students with intellectual disabilities, the researchers conducted three primary activities. First, in-depth interviews were carried out with teachers from ten Special Needs Schools (Sekolah Luar Biasa/SLB) in Jakarta. These interviews aimed to explore the teachers' perspectives, experiences, and challenges related to the use of multimedia in teaching students with intellectual disabilities. Second, the researchers conducted a document analysis of the existing learning materials officially provided for use in SLB settings. This analysis focused on evaluating the content, format, accessibility, and alignment of the materials with the cognitive and sensory needs of students with intellectual disabilities. Third, an analysis was performed on the instructional materials currently utilized by teachers in classroom practices. This activity involved examining the structure, media elements, and pedagogical strategies embedded in teacher-developed materials to identify gaps, strengths, and areas for improvement. The triangulation of these three data sources ensured a robust and contextually grounded understanding of the instructional needs and material design requirements specific to this learner population.

The results of interviews with teachers from ten Special Needs Schools (SLB) in Jakarta indicate an urgent need to develop multimedia-based learning materials tailored to the characteristics of students with intellectual disabilities. Teachers emphasized that the use of visual, audio, and animated media is not merely supplementary, but rather a fundamental necessity in helping students understand abstract concepts and improve memory retention through multisensory approaches.

Interactivity in learning content is considered highly crucial. Elements such as interactive buttons, multiple-choice options, educational games, and simulations significantly enhance students' active participation in the learning process, (Cheung & Ng, 2021). These features not only foster engagement but also create an enjoyable and meaningful learning experience. Furthermore, teachers underlined the importance of content personalization to match each student's cognitive and sensory abilities. Simplified material presented in clear, accessible language, along with flexible content that can be accessed anytime and anywhere, is seen as essential to support repeated learning, both at school and at home. Accessibility features, such as voice narration for students who cannot yet read, and strong visual aids to clarify concepts, are considered indispensable components.

In terms of practice, interactive multimedia approaches such as drag-and-drop or matching activities are regarded as effective in enhancing comprehension and boosting student motivation. Exercises that are adaptive to individual needs and supported by instant feedback are seen as valuable in delivering positive and sustainable learning experiences, (Ajogbeje, 2023). With regard to assessment, teachers agreed that evaluations must be inclusive and flexible, (Huyer et al., 2024). Assessments that incorporate various media (images, audio, video) and interactive elements such as simulations or simple games provide comfort and reduce students' anxiety during evaluations. Assessments should also be contextual and adaptive to students' learning styles and conditions, with real-time feedback functioning as a tool for reflection, (Tutunaru, 2023).



The textbook Dare to Speak English by Endah Dwi Hastuti (2020) was analyzed using a checklist-based instrument to assess its alignment with the curriculum, content quality, inclusivity, and application of multimedia-based learning principles. Out of 20 evaluation indicators, only 9 were met, representing 65% of the total. Based on the scoring classification, the book falls under the category of "Requires Revision."

In terms of curriculum alignment, the book scored highly. The material aligns with Learning Outcomes (CP) and Core Competencies (KD), and learning objectives are explicitly stated. The book also supports the values of the Pancasila student profile, such as courage in expressing opinions, cultural openness, and collaborative learning. Regarding content quality, the material is accurate and appropriate for the cognitive abilities of students with intellectual disabilities. The content is presented in a simplified format with basic practice activities. However, it lacks adequate visual stimulation, which is critical for a multisensory learning experience. The aspects of multimedia design and technological integration are completely unmet. The book remains in a conventional print format, with no incorporation of interactive elements such as animation, audio, or digital quizzes. The absence of multimedia features undermines the book's effectiveness as a modern learning resource responsive to the needs of special needs learners.

Visually, while the font is generally readable, the layout remains plain and lacks colorful or engaging design elements. Inclusivity and values representation are acceptable, with content free from social bias and promoting positive character traits. However, there is limited adaptation of the content to the specific needs of students with intellectual disabilities. In the area of learning activities, the book tends to be instructional and passive, with little encouragement for exploratory or reflective learning. Additionally, the assessment and feedback mechanisms are lacking, as there is no automatic evaluation system or real-time feedback for learners.

Overall, although Dare to Speak English demonstrates potential in supporting basic English language competencies, it requires substantial revision, particularly in the integration of technology, interactivity, and visual design. Enhancing these aspects would strengthen its role as an inclusive and adaptive learning resource for students with intellectual disabilities. Based on the needs analysis and evaluation of teaching materials currently used by Special Education (SLB) teachers in Jakarta, the development of multimedia-based English instructional materials for Grade VII students with intellectual disabilities is both highly important and urgent. This conclusion is supported by several key findings.

First, students with intellectual disabilities possess distinct cognitive and sensory characteristics that require a concrete, multisensory, and repetitive learning approach. Teachers consistently emphasize that media such as audio, visuals, and animation are not supplementary components, but rather essential tools for enabling students to understand abstract concepts and retain information in long-term memory. Therefore, learning materials that integrate text, sound, images, and video have proven highly effective and are commonly used across SLB settings.

Second, the interactive aspect of learning materials significantly enhances student engagement. Features such as educational games, quizzes, clickable options, and simulations not only support comprehension but also create more enjoyable and meaningful learning experiences. However, the analysis of current teaching materials reveals inconsistencies in quality across schools, particularly regarding the availability of interactive features and automated feedback mechanisms.

Third, the existing materials generally support flexibility in terms of time and place of use, whether in school or at home. This flexibility is crucial because students with intellectual disabilities benefit from repeated exposure and reinforcement. Nevertheless, not all materials are fully adaptive to individual learners' needs, especially regarding reflective and independent learning activities, as well as differentiated assessments.

Evaluation of the Dare to Speak English textbook indicates that while it excels in curriculum alignment and content quality, it falls significantly short in areas such as multimedia integration, interactivity, and technological support. The textbook remains in a conventional print format without digital features that can increase student engagement and enhance learning outcomes. This shows that existing materials do not fully meet the demands of inclusive, technology-integrated education.

In sum, the development of multimedia-based English learning materials for Grade VII students with intellectual disabilities is not only necessary but also strategic. Effective instructional materials should be inclusive, adaptive, flexible, and interactive, supported by technologies that ensure broad accessibility and engaging learning experiences. Such efforts are essential to bridge the gap between the unique learning needs of students with special educational needs and the availability of appropriate teaching resources, ultimately enhancing the quality and equity of education in special schools. Therefore, SLB teachers in Jakarta strongly recommend the development of interactive, adaptive, and multisensory multimedia-based instructional materials as a key strategy to improve the learning outcomes of students with intellectual disabilities.

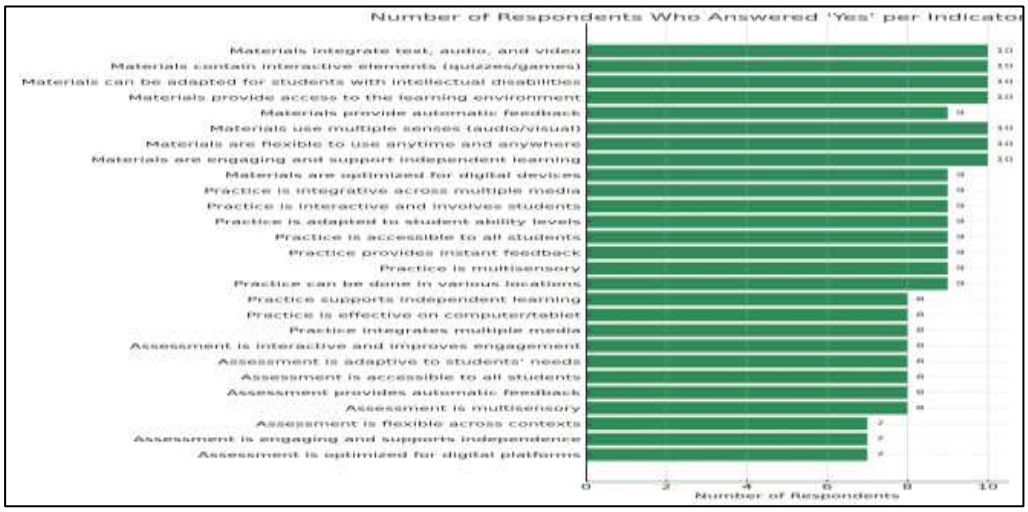
The analysis of the textbook Dare to Speak English by Endah Dwi Hastuti reveals that out of 20 evaluation indicators, only 10 were fulfilled. This result places the textbook in the category of "Fairly Valid but Requires Revision." One of its main strengths lies in curriculum alignment, where all relevant indicators were met. The material is consistent with the designated Learning Outcomes (CP) and Core Competencies (KD) and presents learning objectives clearly and systematically. It also supports the values of the Pancasila Student Profile, including the promotion of speaking confidence, cultural openness, and collaboration. The quality of content is another positive aspect. The material is presented in a simple and accurate manner and is suitable for the cognitive abilities of students with intellectual disabilities. It includes basic examples and simple activities that meet the learning needs of students with special educational needs. However, the strength of this content is not supported by adequate visual presentation or educational technology.

In terms of multimedia design, technological support, and evaluation, the book demonstrates notable weaknesses. It lacks multimedia elements such as animations, audio, interactive quizzes, or motion graphics features typically essential to attracting students' attention and reinforcing learning for students with intellectual disabilities. The book is entirely print-based and not compatible with digital platforms such as mobile phones or tablets, limiting its flexibility for both classroom and home use. Furthermore, there are no built-in mechanisms for direct feedback in practice or assessment activities, despite real-time feedback being crucial for helping students understand their mistakes and improve independently.

With regard to value representation and inclusivity, the book avoids social bias and promotes positive character values. However, it still lacks adequate adaptation to the varied sensory and cognitive characteristics of students with intellectual disabilities. The learning activities offered are overly instructional and passive, lacking opportunities for exploration, collaboration, or reflection elements that are essential for students who benefit from concrete, active, and contextual learning.

Overall, while Dare to Speak English demonstrates potential in supporting English language learning for junior secondary school students with intellectual disabilities, it requires substantial improvement in terms of technology integration, interactivity, and multisensory instructional approaches. Enhancing these aspects would strengthen the book's role as an inclusive and adaptive teaching material for students with special educational needs.

An evaluation of teaching materials used by Special Needs School (SLB) teachers in Jakarta to teach students with mild intellectual disabilities was conducted based on responses from ten teachers, using 27 indicators across three key domains: instructional content, practice activities, and assessment. The main objective of the analysis was to assess how well multimedia-based learning materials align with inclusive learning principles, particularly in terms of accessibility, flexibility, and effectiveness in supporting the learning process for students with special needs.



The summary results show that most indicators received positive responses. Key indicators such as the integration of text, audio, and video; the use of multisensory elements; and the flexibility of accessing materials anytime and anywhere—received full support from all ten respondents. This indicates that basic multimedia learning features are generally present in the SLB environments surveyed. However, some indicators showed inconsistency in implementation. Features such as interactive quizzes, educational games, and automated feedback systems were

supported by only 9 out of 10 respondents. This suggests that although many schools have adopted multimedia-based learning approaches, the quality and completeness of materials vary across institutions.

Specifically, in the instructional content domain, most indicators received perfect scores. Teachers noted that the content is engaging, flexible, accessible across devices, and supportive of independent learning. Nevertheless, one or two teachers reported that interactive features and automated feedback systems were still absent in the materials they used highlighting the uneven adoption of educational technology. In the practice domain, teacher perceptions were similarly positive. The exercises were seen as interactive, accessible, and tailored to the students' characteristics. However, one respondent felt the materials were not sufficiently engaging or lacked instant feedback. Thus, while the overall quality of practice activities is high, it remains inconsistent.

In the assessment domain, most indicators received favorable responses. The assessments employed were described as interactive, multisensory, and adapted to the needs of students with intellectual disabilities. However, a few teachers noted that integrative assessments and those that support independent evaluation were still not fully available in all materials. In conclusion, the analysis indicates that the multimedia teaching materials currently in use meet most inclusive learning principles for students with mild intellectual disabilities. Nevertheless, improvements are still needed—especially in ensuring equitable quality of interactive features, automated feedback systems, and the development of adaptive and reflective learning and assessment tools.

Based on the findings of the needs analysis and the evaluation of instructional materials used by SLB teachers in Jakarta, the development of multimedia-based English learning materials for Grade VII students with intellectual disabilities is not only important but also urgently needed. This conclusion is supported by several key points.

First, students with intellectual disabilities possess unique cognitive and sensory characteristics that require concrete, multisensory, and repetitive instructional approaches. Teachers consistently emphasized that media such as audio, visual aids, and animations are essential tools—not supplementary for helping students grasp abstract concepts and retain information. Instructional materials that integrate text, sound, images, and video have proven highly effective and are already in use in many SLB.

Second, interactivity in learning materials plays a key role in encouraging active participation. Features such as educational games, quizzes, clickable options, and simulations not only aid comprehension but also enhance the overall learning experience. However, the analysis of currently available materials indicates a gap in consistency between schools, particularly in terms of the presence of interactive features and real-time feedback systems.

Third, most teaching materials already support flexible usage across different times and environments, including both school and home settings. This is crucial, as students with intellectual disabilities require repeated exposure to content. However, not all materials are fully adaptive to individual student needs, especially when it comes to reflective and independent learning activities and assessment tools.

The evaluation of the Dare to Speak English textbook reinforces these concerns. Despite strengths in curriculum alignment and content accuracy, it lacks in multimedia features, interactivity, and technological compatibility. As a print-only resource, it does not meet the demands of inclusive, modern digital learning environments. Therefore, the development of inclusive, adaptive, flexible, and interactive multimedia-based English learning materials for Grade VII students with intellectual disabilities is both a pedagogical and strategic imperative. Such efforts are essential to bridge the gap between student needs and available resources, and to enhance equitable and effective learning experiences in special education settings.

5. CONCLUSION

The findings of this study underscore the urgent and strategic need for the development of multimedia-based English instructional materials for seventh-grade students with intellectual disabilities in Special Needs Schools (SLB). The analysis reveals that such students require learning resources that integrate text, visuals, sound, and video to effectively support their comprehension of abstract concepts and to enhance memory retention. Teachers consistently emphasized that multimedia components are not supplementary, but essential elements of effective instruction for this learner group. Furthermore, interactivity emerged as a critical factor in fostering student engagement, with features such as educational games, quizzes, selection buttons, and simulations contributing to more enjoyable and meaningful learning experiences.

However, the study also identified inconsistencies in the availability and implementation of interactive features and automated feedback systems across schools, suggesting a lack of uniform quality in existing materials. Although many current resources allow flexible access enabling learning both at school and at home—they often lack adaptability to individual student needs, especially in areas related to assessment and reflective learning. The textbook Dare to Speak English, while aligned with curriculum standards and offering quality content, was found to be deficient in terms of multimedia integration, technological support, and interactivity, remaining largely conventional and print-based. In light of these findings, the development of inclusive, adaptive, flexible, and interactive instructional materials supported by appropriate technology is not only necessary but imperative. Such materials will help bridge the gap between the diverse learning needs of students with intellectual disabilities and the limited availability of responsive educational resources, thereby advancing the goal of equitable and effective instruction in SLB settings.

6. SUGGESTIONS/RECOMMENDATIONS

Based on the findings of this study, several recommendations are proposed for educators, material developers, policymakers and future researchers to enhance the effectiveness of English instruction for students with intellectual disabilities in Special Needs Schools (SLB). First, English teachers in SLB are strongly encouraged to integrate multimedia-based instructional materials that combine text, visuals, audio and interactive elements in a systematic and pedagogically meaningful manner. Such materials should be designed to simplify abstract concepts, strengthen memory retention and increase student engagement. Teachers are also advised to receive continuous professional development related to the selection, adaptation and classroom implementation of multimedia learning tools tailored to the cognitive characteristics of students with intellectual disabilities.

Second, instructional material developers should prioritize inclusivity, adaptability and interactivity in designing English learning resources for special education contexts. Multimedia materials should allow flexible pacing, repeated exposure, immediate feedback and varied levels of difficulty to accommodate diverse learner needs. Features such as games, simulations, quizzes and audio-visual supports should not be treated as optional enhancements but as essential components of effective instructional design for students with intellectual disabilities. Third, curriculum designers and policymakers are advised to support the integration of digital and multimedia resources into the official curriculum for Special Needs Schools. This includes providing adequate technological infrastructure, access to digital devices and policy frameworks that promote inclusive and technology-supported learning environments. Textbooks currently used in SLB should be revised or complemented with digital versions that incorporate interactive and multimedia features aligned with inclusive education principles. Finally, future research is recommended to extend this needs analysis into the development, implementation and experimental evaluation of multimedia-based English learning materials for students with intellectual disabilities. Further studies may employ design-based research or quasi-experimental methods to examine the effectiveness of such materials on students' language achievement, motivation and long-term retention. Research involving a broader range of disability categories and educational settings would also contribute to a more comprehensive understanding of inclusive multimedia-based language learning. Overall, these recommendations aim to support the advancement of equitable, engaging and effective English language instruction in special education through the thoughtful integration of multimedia and digital technologies.

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