

The Development of Edmitico: A Disaster Mitigation Comic as an English Vocabulary Learning Media for Students with Mild Intellectual Disabilities

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Abstract

Previous studies have generally focused only on English vocabulary learning or disaster mitigation education separately. No instructional medium has yet integrated both aspects in a single resource specifically developed for students with mild intellectual disabilities. This study aims to develop a bilingual (Indonesian and English) disaster mitigation comic that combines English vocabulary learning with disaster mitigation education. This research used the Research and Development (R & D) method with the ADDIE model: analysis, design, development, implementation, and evaluation. The study was conducted on May 8–13, 2026, at SLB Negeri Ngadirojo, Pacitan Regency, involving three elementary students with mild intellectual disabilities. Media validation results showed a score of 90.5% from media experts (highly feasible) and 80.5% from material experts (feasible). Implementation showed an effectiveness rate of 87.5% (highly effective). The medium improved students' attention, participation, and understanding of English vocabulary as well as earthquake and tsunami mitigation actions. Thus, the developed comic is considered feasible, practical, and effective as a learning medium for students with mild intellectual disabilities.

Keywords: *ADDIE model, education comics, English vocabulary, disaster mitigation, mild intellectual disabilities*

1 Introduction

Indonesia is known as one of the countries with a high risk of natural disasters. Geographically, Indonesia is located on the Ring of Fire and at the meeting point of four tectonic plates, namely the Asian Plate, the Australian Plate, the Indian Ocean Plate, and the Pacific Plate (BNPB, 2024). This condition makes Indonesia highly vulnerable to natural disasters such as volcanic eruptions, earthquakes, tsunamis, floods, and landslides. In the past year, many natural disasters have occurred in Indonesia. According to data published by the Indonesian National Agency for Disaster Management, or BNPB, in 2024, Indonesia experienced 3,472 natural disasters. Based on these high numbers, people must be prepared to face potential disasters that can occur at any time so that they can minimize the risk of natural disasters.

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Efforts to reduce disaster risks are not only the responsibility of the government, but also of all levels of society, including educational institutions. One effective strategy is disaster mitigation education starting from elementary school. As educational institutions, elementary schools not only provide academic education but also play an important role in instilling life skills and building disaster preparedness from an early age. Disaster mitigation education starting in elementary schools in Indonesia is urgently needed because many students are still unprepared and unresponsive to disasters. With disaster mitigation education, students become more aware of the types of disasters, the impacts, and the actions that must be taken before, during, and after a disaster occurs (UNDRR, 2022).

On the other hand, the English language is also part of elementary school education. In the Merdeka Curriculum, English is returning as a compulsory subject at the elementary school level after being removed in the previous curriculum (Syarifah & Nurhidayat, 2024). This policy reflects the government's recognition of the importance of introducing English from an early age to strengthen students' global competence and prepare them for future communication needs in an international context. According to the Ministry of Primary and Secondary Education, English language learning not only serves to introduce a foreign language but also serves as a means to broaden students' insight and improve their communication skills in a global context (Kemendikdasmen, 2025).

One of the most important parts of learning English is vocabulary mastery, because vocabulary is the fundamental aspect for developing language skills. Before learning language skills, we must learn the basics of a language, namely vocabulary (Nopia et al., 2025). Without a good mastery of vocabulary, students will have difficulties while communicating in English. It is impossible to learn and communicate in a language without mastering vocabulary (I. Puspitasari et al., 2024). Therefore, integrating English vocabulary learning with disaster mitigation education can be an innovative approach. This approach aligns with the principles of the Merdeka curriculum, as regulated in Permendikbudristek Number 12 of 2024; learning is directed to be more contextual and meaningful, giving teachers the flexibility to design learning according to the context, student needs, and conditions of the educational unit. Through this learning, students not only learn English vocabulary but also understand the importance of disaster preparedness.

However, not all students can learn in the same way. One group of students that requires special attention is students with intellectual disabilities. Students with intellectual disabilities have limitations in abstract thinking, memory, and social adaptation (AAIDD, 2021). These disabilities arise during the developmental period, before an individual reaches the age of 22 (Schalock et al., 2021). Nevertheless, students with intellectual disabilities find it easier to understand learning environments that incorporate visual and interactive elements rather than purely verbal or text-based instruction (Standen et al., 2020). Therefore, teachers need to use learning media that are appropriate to their characteristics and needs so that the learning process can take place effectively.

In addition, based on preliminary observations conducted by researchers at special schools, it was found that two out of three students with mild intellectual disabilities tend to learn more effectively when learning activities involve visual and contextual media. During the learning process in the classroom, students showed higher levels of attention, better engagement, and

more positive responses when teachers used pictures, illustrations, or learning materials related to the students' daily life. In contrast, when learning activities rely more on verbal explanations or abstract instructions, students seem confused, passive, and easily distracted. This condition shows that students with intellectual disabilities experience significant difficulties when learning materials are not presented concretely and visually.

One of the visual learning media that is considered effective for students with mild intellectual disabilities is an educational comic. A comic is a combination of text and images that can improve students' understanding of concepts or material to be learned (Muhaimin et al., 2023). For students with intellectual disabilities, comics are an attractive medium because it presents concrete visual contexts that make it easier for them to understand the message being conveyed. This is aligned with research conducted by Hastuti (2020), which found that the use of comics as a learning medium for students with intellectual disabilities can increase their learning motivation and ability to understand the learning material.

Based on the research of Puspitasari and Rodiyana (2022), the use of comic media in elementary schools can improve students' comprehension of the material, which results in improved student learning outcomes. Similarly, research conducted by Zakaria et al. (2023) proves that the use of comics can make elementary school students more interested and focused on the material. According to Sujinah et al. (2023), disaster mitigation-based digital comic can be used effectively as educational tools for introducing disaster mitigation to students at an early age. In addition, Aprianti et al. (2024) stated that earthquake disaster mitigation comics were proven to be interesting learning media and easy to understand for elementary school students, so they were able to increase their knowledge about earthquake disaster mitigation.

Although several studies have shown that the use of comics as a learning media can increase student interest and comprehension, most of these studies still focus on vocabulary learning or disaster mitigation education separately and mostly focus on regular students, while no media have integrated both aspects for students with mild intellectual disabilities.

Based on this gap, this study develops bilingual comic media that integrates English vocabulary learning with disaster mitigation education and is tailored to the characteristics of students with mild intellectual disabilities. Unlike previous studies, this study provides a contextual bilingual comic in English-Indonesian language that is specifically designed according to the cognitive characteristics and learning needs of students with mild intellectual disabilities. The developed media not only facilitates English vocabulary acquisition but also enhances disaster preparedness through visual, contextual, and easy-to-read learning media.

Therefore, this study aims to develop a product, namely Edmitico, an acronym for English Disaster Mitigation Comic, as a media for teaching English vocabulary to students with mild intellectual disabilities. This media integrates English vocabulary learning with disaster mitigation education through a bilingual comic media that is designed to suit students with mild intellectual disabilities characteristics. This study is expected to develop suitable and effective media to improve vocabulary mastery while instilling students' awareness and preparedness for disaster mitigation from an early age. Through this approach, learning is not only oriented towards academic achievement, but also towards the development of life skills and preparedness for disaster risks.

2 Methods

This research employs a Research and Development (R&D) methodology, which aims to develop Edmitico (English Disaster Mitigation Comic) media, specifically to teach vocabulary mastery and disaster preparedness for students with intellectual disabilities.

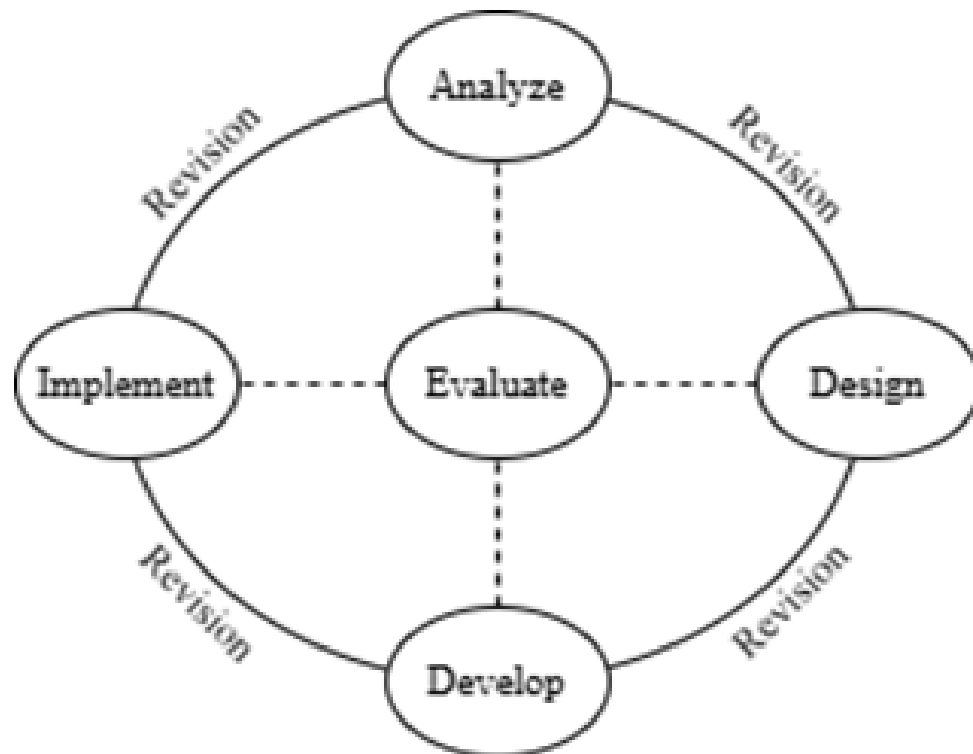


Figure 1: ADDIE Model

This research was conducted on May 8-13, 2026, at SLBN Ngadirojo. The subjects of this research are three elementary school students with mild intellectual disabilities. The instruments in this research include observation sheets, expert validation sheets, and teacher interview guidelines. There are two validators in this research, namely media validators and material validators. The media expert focused on three aspects, namely visual design, practicality, and readability. Meanwhile, the material expert validation reviewed three aspects, namely format, content, and language.

The data collection techniques used in this study included observation, questionnaires, interviews, and documentation. Qualitative data obtained from observations of the development process and interviews were analyzed descriptively in the form of statements or narratives to provide deeper meaning, understanding, or interpretation of the data. Meanwhile, quantitative data from expert validation and observation results were analyzed using descriptive quantitative analysis techniques. Assessment scores used a four-point Likert scale, then calculated and converted into percentages using the following formula from Sugiyono (2023).

$$y = \frac{\sum x}{\sum x_i} \times 100\% \quad (1)$$

Description:

y : product validation score

$\sum x$: total score

$\sum x_i$: maximum score

Table 1: Eligibility Criteria

Percentage	Eligibility Criteria
81-100%	Very Feasible
61-80%	Feasible
41-60%	Fair
21-40%	Less Feasible
0-20%	Not Feasible

3 Results and Discussion

The findings and discussion in this study are divided into several stages in accordance with the development model used, namely ADDIE.

3.1 Analysis

The initial step in the development of the Edmitico (English Disaster Mitigation Comic) media is the analysis stage, which aimed to identify the academic needs of students with mild intellectual disabilities at SLBN Ngadirojo. Interviews with teachers revealed that students struggle to understand abstract concepts, have limited retention ability, and easily get distracted in the learning activity. In addition, students still have difficulty understanding basic English vocabulary and have a low level of comprehension regarding disaster mitigation, particularly earthquakes and tsunamis. Teachers also noted that the learning media used so far have not been fully suited to the characteristics of students with mild intellectual disabilities because they rely more on verbal explanations and lack visual support.

Meanwhile, classroom observations revealed that the students with mild intellectual disabilities were more interested and paid better attention when the learning process incorporated pictures, illustrations, or materials that were relevant to their daily lives. In contrast, when material was presented abstractly without visual support, the students were more passive, confused, and easily distracted. These findings indicate that students with mild intellectual disabilities require learning materials that are concrete, visual, simple, and contextual. These findings align with Standen et al. (2020), who state that students with intellectual disabilities find it easier to understand learning environments that incorporate visual and interactive elements rather than purely verbal or text-based instruction. Jacob et al. (2021) state that media with visual illustrations can enhance the attention and understanding of students with intellectual disabilities regarding the learning material. In addition, Wadihah and Fauzi (2021) explain that visual media can help students with special needs understand the information and improve their language skills. Thus, the analysis results indicate that the development of comic-based learning media is a relevant need to help students with mild intellectual disabilities understand English

vocabulary as well as disaster mitigation material. Therefore, the Edmitico (English Disaster Mitigation Comic) media was developed as a solution that can integrate these two topics into a visual format that is appropriate for students with mild intellectual disabilities.

3.2 Design

The design stage involved developing learning objectives, media formats, vocabulary content, disaster mitigation content, storyboards, as well as the visual design and language used in the Edmitico (English Disaster Mitigation Comic) media. The learning objectives focused on students' ability to understand English vocabulary related to disasters, understand earthquake and tsunami mitigation actions, and increase students' awareness about the importance of disaster preparedness.

The Edmitico (English Disaster Mitigation Comic) media is designed in the form of printed and digital comics in B5 size. The use of bilingual language, namely Indonesian and English, is intended to help students comprehend the vocabulary more easily. The selected material focuses on earthquakes and tsunamis that are related to Indonesia's geographical conditions. The vocabulary included in the media consists of basic words such as earthquake, tsunami, evacuation, safe, and disaster.

The storyboard is structured systematically, starting with an introduction to the situation, the occurrence of the disaster, the mitigation actions taken by the characters, and concluding with a moral message at the end of the story. The visual design uses bright colors, characters that are relatable to students' lives, as well as simple and short sentences to ensure that the content is easy to comprehend.

This design aligns with the "Easy Read" concept proposed by Newman et al. (2023), which involves presenting information using simple language, short sentence structures, and visual aids to ensure it is easily understood by individuals with intellectual disabilities. Buell et al. (2024) also explain that clear font sizes, simple layouts, and supporting illustrations can enhance comprehension among students with special needs. Furthermore, Polo-Blanco et al. (2021) state that students with mild intellectual disabilities require material to be presented gradually and systematically so they can understand complex information. Therefore, the Edmitico (English Disaster Mitigation Comic) media design is structured based on the cognitive abilities of students with mild intellectual disabilities so that the material can be understood effectively.

3.3 Development

The media development stage involves several procedures, including character creation, comic sketching, comic inking, comic coloring, and adding speech balloons. The characters are designed with clear expressions that are easily recognizable by the students. The sketching process is used to establish the visual flow and placement of characters in each comic panel. Then, the inking process is carried out to produce clear and clean lines. During the coloring process, bright colors are used to enhance visual appeal and help students identify the objects in the comic. Finally, simple and easy-to-read dialogue is added to the speech balloons in both Indonesian and English.

Figure 2 shows the cover pages of the media. This comic's cover describes the title of the comic, which is written in English as Edmitico (English Disaster Mitigation Comic), a tsunami



Figure 2: Comic Cover Pages

disaster scene with the visuals of huge waves as well as a teacher and several elementary school students running toward a safe place while pointing to the direction of the evacuation route. The back cover of the Edmitico (English Disaster Mitigation Comic) media shows an illustration of a blue sea with big waves in the lower right corner and a clear blue sky. The dominant colors of blue and white were chosen to create an eye-catching design that would attract students' attention.

Figure 3 shows the content of the comic. This comic is a bilingual comic with English and Indonesian that focuses on earthquake and tsunami disaster mitigation. The comic tells the story of teachers' and students' experiences when facing an earthquake and tsunami disaster while they are at school. In addition to presenting the story, this comic includes simple definitions of an earthquake and a tsunami, as well as mitigation actions that are easy for children to understand. At the end of the story, the conditions at the evacuation place are shown, along with a moral message about the importance of understanding disaster mitigation. Furthermore, the final page presents a list of vocabulary along with their meaning to make it easier to evaluate the material.

After the media has been created, the next step is the validation phase. This validation phase is essential to determine the product's feasibility. There are two validators in this phase, namely a media expert and a material expert.

According to Table 2, the average score obtained from the expert validation was 85.5%, which means that Edmitico (English Disaster Mitigation Comic) media is very feasible, especially for use as an English learning media that is integrated with disaster mitigation education for students with mild intellectual disabilities. The results of validation indicate that the developed media fulfill the aspects of visual, format, language, content, readability, and practicality that are appropriate for students with mild intellectual disabilities. Standen et al. (2020) state that



Figure 3: Comic Material Pages

Table 2: Data Analysis of Expert Assessment Results

Assessment	Mark(%)	Description
Media Expert	90,5%	Very Feasible
Material Expert	80,5%	Feasible
Mean	85,5%	Very Feasible

Table 3: Data Analysis for Trial Results

Assessment	Mark(%)	Description
One-to-One Trial	91,6%	Very Feasible
Small Group Trial	86,1%	Very Feasible
Field Trial	87,5%	Very Feasible
Mean	88,4%	Very Feasible

students with intellectual disabilities find it easier to understand learning environments that incorporate visual and interactive elements rather than purely verbal or text-based instruction. In addition, Buell et al. (2024) also explain that clear font sizes, simple layouts, and supporting illustrations can enhance comprehension among students with special needs. Furthermore, Wilson et al. (2026) also emphasize that a combination of simple text, supporting images, and a clear layout can enhance the understanding of information and reduce cognitive load during the learning process. Therefore, the validation results show that the Edmitico (English Disaster Mitigation Comic) media.

The expert validation process also provided several recommendations for improving the quality of the media that was developed. Media experts suggest increasing the font size to enhance readability for students with mild intellectual disabilities, adding a vocabulary list at the end of the comic to strengthen English vocabulary mastery, and including disaster mitigation signs, particularly evacuation route signs and assembly point signs, to reinforce contextual understanding of disaster preparedness. Meanwhile, the material experts recommend enlarging the font size, simplifying the front cover design to reduce unnecessary visual elements, and simplifying the sentence structure to be more appropriate to the cognitive characteristics of students with mild intellectual disabilities.

After the Edmitico (English Disaster Mitigation Comic) media was developed, validated by experts, and revised, the next step is a trial phase to determine the media's feasibility when used directly for students with mild intellectual disabilities. This phase consists of three stages, namely one-to-one trials, small group trials, and field trials. One-to-one trials were conducted with one student. Small group trials involved two students. The field trial done to three students with mild intellectual disabilities in SLBN Ngadirojo. During the trial process, the researcher used an observation sheet to collect data about the media feasibility and effectiveness.

The trial phase results showed that the Edmitico (English Disaster Mitigation Comic) media was proven feasible and appropriate for students with mild intellectual disabilities. This media was also effective in increasing students' attention and participation in the learning activity. Therefore, the Edmitico (English Disaster Mitigation Comic) media is feasible to use as an English learning media that is integrated with disaster mitigation education for students with mild intellectual disabilities.

3.4 Implementation

The Edmitico (English Disaster Mitigation Comic) media was implemented at SLBN Ngadirojo on May 12–13, 2026, for students with mild intellectual disabilities. The implementation was carried out through learning activities conducted over two meetings, with each meeting lasting

40 minutes. During the pre-teaching session, the teacher prepared the students for the lesson and introduced the Edmitico (English Disaster Mitigation Comic) media along with the learning objectives to be achieved. During the main teaching session, the teacher explained the comic's content step by step, showing each panel and describing the sequence of events in the story. Next, the teacher introduced English vocabulary through pictures and repeated pronunciation, such as "earthquake," "tsunami," and "evacuation." In addition, the teacher demonstrated disaster mitigation actions, which were followed by the students. During the learning activity, the students appeared excited and were able to follow the teacher's instructions according to their individual abilities. In the post-teaching activity, the teacher reviewed the material and vocabulary that had been learned to strengthen the students' understanding.

During the implementation of the media, the researcher conducted observations of the students during the learning process while using the Edmitico (English Disaster Mitigation Comic) media. The observation results show that the media obtained a score of 91 points out of a total of 104 points. Based on this score, it can be concluded that the effectiveness of the Edmitico (English Disaster Mitigation Comic) media has reached 87.5% and is categorized as very effective. The students were also more interested and active when using the Edmitico (English Disaster Mitigation Comic) media compared to learning that relied solely on verbal explanation. The classroom teacher also stated that the colorful illustrations, simple story, and simple text made it easier for students to understand the material and maintain their attention during the learning process. The students were also more active in practicing the disaster mitigation actions described in the comic.

These findings align with Hastuti (2020), who found that the use of comics as a learning medium for students with intellectual disabilities can increase their learning motivation and ability to understand the learning material. Prihatiningtyas and Seinsiani (2025) also found that comic media can improve vocabulary mastery because it is supported by real contexts and visual illustrations. Furthermore, Wu and Szafir (2023) explain that visualizations designed according to the characteristics of individuals with intellectual disabilities can help them understand information more effectively. Thus, the implementation of the Edmitico (English Disaster Mitigation Comic) media shows that the use of comics can improve the attention, participation, and understanding of students with mild intellectual disabilities.

3.5 Evaluation

The evaluation stage comes last in the ADDIE development model. Its purpose is to evaluate the final quality of the Edmitico (English Disaster Mitigation Comic) media using the results from expert validation and its implementation. The evaluation results indicate that the Edmitico (English Disaster Mitigation Comic) media has a very good level of feasibility. The average score obtained from the expert validation was 85.5%, which means that Edmitico (English Disaster Mitigation Comic) media is very feasible for use as an English learning media that integrates disaster mitigation education for students with mild intellectual disabilities. The high validation results indicate that the developed media has fulfilled the aspects of visual, format, content, language, readability, and practicality that are appropriate for students with mild intellectual disabilities. Additionally, the implementation results reveal that the media

achieved an effectiveness rate of 87.5%, which falls into the “very effective” category. Students appeared more engaged, active, and able to follow the lessons more effectively when using the Edmitico (English Disaster Mitigation Comic) media compared to lessons that relied solely on verbal explanations.

Nevertheless, the implementation process showed that some students still required repetition of instructions and gradual guidance in understanding specific English vocabulary. Therefore, the teacher’s role remains essential in providing guidance and support during the learning process. Furthermore, the gradual delivery of the material and the use of clear instructions are key factors in the success of using this media for students with mild intellectual disabilities.

Overall, the evaluation results indicate that Edmitico (English Disaster Mitigation Comic) media is a feasible, practical, and effective learning media for teaching English that is integrated with disaster mitigation education for students with mild intellectual disabilities. This media can combine visual illustrations, simple language, and contextual stories, which can help students understand English vocabulary as well as increase their knowledge and preparedness for disasters. Thus, Edmitico (English Disaster Mitigation Comic) media can serve as an alternative learning media that is suited to the characteristics of students with mild intellectual disabilities and supports the development of learning that is more meaningful and contextual.

4 Conclusion and Recommendation

Based on the research and development results of the Edmitico (English Disaster Mitigation Comic) as an English learning media for students with mild intellectual disabilities, it can be concluded that the Edmitico (English Disaster Mitigation Comic) was very feasible. The media expert validation achieved a 90.95% score, classified as very feasible, while the material expert validation obtained an 80.5% score, classified as feasible. These results show that this media has met the appropriate criteria for visual presentation, readability, content, language, and suitability for students with mild intellectual disabilities. Furthermore, the results of implementation show that Edmitico (English Disaster Mitigation Comic) media achieved an effectiveness rate of 87.5%, which is classified as very effective. The use of this medium was able to increase students’ attention, participation, and enthusiasm during learning. Students also appeared to find it easier to recognize English vocabulary and understand earthquake and tsunami disaster mitigation actions through the visual illustrations in the comic. Thus, the Edmitico (English Disaster Mitigation Comic) media was considered feasible and effective for use as an English learning media that is integrated with disaster mitigation education for students with mild intellectual disabilities.

These findings have practical implications for teachers, special education practitioners, and schools by providing accessible bilingual learning media that integrates English vocabulary learning with disaster mitigation education. This approach can support meaningful learning experiences for students with mild intellectual disabilities while also enhancing their language skills and disaster preparedness. In addition, the comic developed can serve as a reference for designing other inclusive teaching media that combine academic learning with life skills training.

Nevertheless, there were several limitations in this study. First, the study was carried out with a limited number of participants from a single special education school and focused only

on the topic of earthquake and tsunami mitigation. Second, the effectiveness of the developed media was assessed solely through classroom observations, without being supported by additional quantitative measures such as pre-tests and post-tests. Therefore, for future research is suggested to increase the number of subjects, use various methods to measure the media effectiveness, and expand the content to cover other types of natural disasters.

References

- AAIDD. (2021). Definition of intellectual disability. <https://www.aaidd.org/intellectual-disability/definition>
- Aprianti, R., Nadiyyah, K., Zakirman, & Widiasih. (2024). Comics as a media to understand earthquake disaster mitigation for elementary school students. *Dinamisia : Jurnal Pengabdian Kepada Masyarakat*, 8(4), 1052–1059. <https://doi.org/10.31849/dinamisia.v8i4.18592>
- BNPB. (2024). *Buku data bencana indonesia 2024* (tech. rep.). Badan Nasional Penanggulangan Bencana. https://bnpb.go.id/storage/app/media/Buletin%20Info%20Bencana/Buku%20Data%20Bencana%202024/20250613_Buku%20Data%202024.pdf
- Buell, S., Pounds, G., Langdon, P., & Bunning, K. (2024). Easy read health information for people with intellectual disabilities : A linguistic discourse analysis. what happens to language when it is simplified? *Journal of Applied Research in Intellectual Disabilities*, 37(5), 1–14. <https://doi.org/10.1111/jar.13293>
- Hastuti, W. D. (2020). Development of buy and sell comics to improve counting ability for mild intellectual disability students. *Advances in Social Science, Education and Humanities Research*, 508, 553–557. <https://doi.org/10.2991/assehr.k.201214.295>
- Jacob, U. S., Pillay, J., & Oyefeso, E. O. (2021). Attention span of children with mild intellectual disability : Does music therapy and pictorial illustration play any significant role ? benefit of attention on classroom. *Frontiers in Psychology*, 12, 1–8. <https://doi.org/10.3389/fpsyg.2021.677703>
- Kemendikdasmen. (2025). *Panduan mata pelajaran bahasa inggris fase b – f dan fase f tingkat lanjut* (tech. rep.).
- Muhaimin, M. R., Ni'mah, N. U., & Listryanto, D. P. (2023). Peranan media pembelajaran komik terhadap kemampuan membaca siswa sekolah dasar. *Jurnal Pendidikan Dasar Flobamorata*, 4(1), 399–405. <https://doi.org/10.51494/jpdf.v4i1.814>
- Newman, B., Fisher, K. R., & Trollor, J. (2023). How do australian mental health services use easy read to make information accessible for people with intellectual disability? *Journal of Applied Research in Intellectual Disabilities*, 36(6), 1354–1362. <https://doi.org/10.1111/jar.13156>
- Nopia, L. F., Puspitasari, I., & Wibawa, S. H. (2025). Development of android gamification based english learning “ vip game ” to improve primary school students ’ vocabulary mastery. *BEEJ*, 6(2), 68–76. <https://doi.org/10.32529/beej.v6i2.4267>
- Polo-Blanco, I., López, M. J. G., Bruno, A., & González-Sánchez, J. (2021). Teaching students with mild intellectual disability to solve word problems using schema-based instruction.

- Learning Disability Quarterly*, 44(1), 3–15. <https://api.semanticscholar.org/CorpusID:245076996>
- Prihatiningtyas, F. C., & Seinsiani, I. G. (2025). The utilization of digital comics to enrich students ' vocabulary knowledge. *ELT Lecture Tour*, 1, 167–194. <https://doi.org/10.15294/eltlt.v1i1.367>
- Puspitasari, I., Apriyanti, C., & Partawidjaja, R. V. I. P. (2024). Using flashcards as media to improve english vocabulary mastery at sd negeri 2 sambong. *The Journal Of English Teaching For Young And Adult Learners*, 3(1), 9–13. <https://doi.org/10.21137/jeeyal.2024.3.1.2>
- Puspitasari, W. D., & Rodiyana, R. (2022). Comic media in learning of elementary schools: Systematic literature review. *Journal of Innovation and Research in Primary Education*, 1(1), 12–17. <https://doi.org/10.56916/jirpe.v1i1.29>
- Schalock, R. L., Luckasson, R., & Tassé, M. J. (2021). An overview of intellectual disability: Definition, diagnosis, classification, and systems of supports (12th ed.) *American Journal on Intellectual and Developmental Disabilities*, 126(6), 439–442. <https://doi.org/10.1352/1944-7558-126.6.439>
- Standen, P. J., Brown, D. J., Taheri, M., Galvez Trigo, M. J., Boulton, H., Burton, A., Hallewell, M. J., Lathe, J. G., Shopland, N., Blanco Gonzalez, M. A., Kwiatkowska, G. M., Milli, E., Cobello, S., Mazzucato, A., Traversi, M., & Hortal, E. (2020). An evaluation of an adaptive learning system based on multimodal affect recognition for learners with intellectual disabilities. *British Journal of Educational Technology*, 51(5), 1748–1765. <https://doi.org/10.1111/bjet.13010>
- Sugiyono. (2023). *Metode penelitian kuantitatif, kualitatif, dan r&d*. Alfabeta.
- Sujinah, Pujaanti, E. A., & Isnah, E. S. (2023). Development of digital comics as a source of disaster mitigation education: A case study on building resilience among youth. *Eurasian Journal of Applied Linguistics*, 9(3), 133–141. <https://doi.org/10.32601/ejal.903012>
- Syarifah, E. F., & Nurhidayat, E. (2024). Pelatihan pembelajaran bahasa inggris berbasis kurikulum merdeka bagi guru sekolah dasar. *International Journal of Public Devotion*, 7(2), 157–163. <https://journal.stkipsingkawang.ac.id/index.php/IJPD/article/view/5893>
- UNDRR. (2022). *Gar 2022: Our world at risk: Transforming governance for a resilient future* (tech. rep.). United Nations Office for Disaster Risk Reduction. <https://www.undrr.org/gar/gar2022-our-world-risk-gar>
- Wadihah, H., & Fauzi, A. (2021). Using image media on reading text to improve reading student with intellectual disabilities. *Jurnal Asesmen Dan Intervensi Anak Berkebutuhan Khusus*, 1, 51–56.
- Wilson, H., Irvine, K., Alexander, R. T., & Mengoni, S. E. (2026). Easy read health information for people with intellectual disabilities : A systematic review of the evidence. *Journal of Applied Research in Intellectual Disabilities*. <https://doi.org/10.1111/jar.70195>
- Wu, K., & Szafir, D. A. (2023). Empowering people with intellectual and developmental disabilities through cognitively accessible visualizations.

Zakaria, M. R., Ismail, N., Syam, H. M., Marzuki, M., & Yeni, M. (2023). Comic strip design as an alternative learning media in disaster themes for elementary students. *Jurnal IPA & Pembelajaran IPA*, 7(2), 118–132. <https://doi.org/10.24815/jipi.v7i2.26110>