

Assessing the Need for Disaster Mitigation-Based Textbooks in Indonesian Language Learning: A Study of Junior High Schools in Palu City

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ARTICLE INFO

Keywords:

Needs Analysis;
Textbook
Disaster Mitigation

Article history:

Received 2024-09-12

Revised 2025-01-17

Accepted 2025-01-31

ABSTRACT

Disaster-prone areas like Palu City require educational materials integrating disaster mitigation into the curriculum. This study investigates the need for disaster mitigation-based textbooks in Indonesian language learning at junior high schools, emphasizing students' and teachers' expectations for effective learning resources. This research follows the Research and Development (R&D) approach using the ADDIE model, focusing on the analysis stage. A questionnaire was distributed to 200 students and 20 teachers in junior high schools in Palu City to assess their needs and preferences regarding textbooks. Findings indicate that printed textbooks remain the primary learning resource, with 70% of students and 90% of teachers using them. However, disaster mitigation content is significantly lacking, as 30% of students and 50% of teachers do not have textbooks covering this topic. The study highlights the demand for contextualized disaster mitigation materials, with 90% of students and 85% of teachers preferring visual elements to enhance comprehension. Additionally, 75% of students and 80% of teachers find quizzes engaging, while 95% of students and 75% of teachers value interesting facts. Language clarity is also crucial, with 90% of students and 80% of teachers favouring easy-to-understand language. To improve learning effectiveness, disaster mitigation-based textbooks should incorporate relevant content, engaging visual aids, and accessible language. This study underscores the importance of developing disaster mitigation-integrated textbooks to enhance both language learning and disaster preparedness. Future research should explore localized content integration and interactive teaching strategies for disaster-prone areas.

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1. INTRODUCTION

One of the key challenges in developing teaching materials is the limited integration of disaster mitigation themes into Indonesian language textbooks, particularly in disaster-prone regions like Palu City. Given the city's frequent exposure to natural disasters, incorporating disaster education into the curriculum is crucial to equipping students with essential knowledge and skills for emergency preparedness. Beyond local relevance, this initiative supports broader national disaster resilience efforts. Indonesian language teachers play a critical role in developing contextual teaching materials that align with regional characteristics while adhering to national educational objectives. According to Nugrahani (2017), the national curriculum encourages students to analyze and respond to local, regional, and global issues, making disaster mitigation a pertinent addition to language education.

The urgency of integrating disaster mitigation education is reinforced by President Joko Widodo's directive to incorporate disaster education into the national curriculum. This initiative is further supported by the revision of Law Number 24 of 2007 on Disaster Management, which underscores the importance of disaster education in formal schooling. The devastating events of September 28, 2018—when a 7.8-magnitude earthquake, a tsunami in Palu Bay, and liquefaction in Balaroa and Petobo led to thousands of fatalities, injuries, and infrastructure destruction—highlight the critical need for proactive disaster education.

Research by Huang et al. (2024) emphasizes that geologically vulnerable areas often experience multiple or cascading disasters, making comprehensive mitigation knowledge essential. Similarly, Wang (2024) stresses that disadvantaged communities are disproportionately affected by natural disasters, reinforcing the need for inclusive disaster education to enhance societal resilience. Integrating disaster preparedness into the education system is not only vital for psychological recovery but also crucial for fostering a culture of long-term disaster readiness.

Disaster mitigation is not only an urgent need for Indonesian society but also an integral part of achieving national education goals. The Indonesian curriculum is designed to equip students with critical thinking skills, problem-solving, and responsibility as active citizens. In this context, disaster mitigation-based education has a strategic role, not only to improve community preparedness for disasters but also to develop students' competencies in facing real challenges in their environment. One effort to integrate disaster mitigation into education is through learning that is relevant to certain subjects, including Indonesian at the Junior High School level. This subject provides space to develop students' language skills while instilling the values of humanity, togetherness, and concern for the environment (Susetyo, 2023). Unfortunately, most of the existing Indonesian language textbooks only focus on developing language competencies without touching on important aspects such as disaster mitigation, especially in disaster-prone areas.

Research shows that integrating local materials and contextual issues, such as disaster mitigation, into the school curriculum can increase the relevance of learning so that students feel more connected to what they are learning (Kusnaeni, 2024). Disaster mitigation-based textbooks not only provide linguistic knowledge but also equip students with practical skills in dealing with emergencies while encouraging the development of critical thinking and creative solutions to problems faced by the community. Therefore, the development of textbooks that integrate disaster mitigation materials is an important step, especially for areas with high disaster risks, such as Palu City. This effort is in line with the goals of the national curriculum to create students who are not only academically competent, but also resilient, critical, and contribute to society. However, before developing textbooks, a needs analysis must be carried out to ensure that the materials prepared are truly to the conditions, needs, and expectations of students and teachers in the area. This needs analysis will ensure that the development of disaster mitigation-based textbooks can be carried out more precisely, have a significant impact on learning, and increase student preparedness in dealing with disasters.

This research is of high urgency, considering the lack of studies that specifically discuss the development of disaster mitigation-based textbooks for learning Indonesian at the junior high school (SMP) level, especially in disaster-prone areas such as Palu City. Palu City, as an area prone to disasters,

requires an educational approach that is not only relevant to local needs but also supports the achievement of broader national education goals. Through this research, it is hoped that a comprehensive picture can be produced regarding the importance of contextual disaster mitigation-based textbooks, as well as strategic steps in their development and implementation in the classroom. These textbooks are expected to not only support the improvement of students' language competence but also equip them with important life skills to improve preparedness and resilience in facing disasters. This research aims to bridge local education needs with the achievement of national curriculum goals, namely to produce a responsive, creative, and responsible generation as part of an integrated disaster mitigation effort.

Several previous studies have emphasized the need for locally contextualized teaching materials that incorporate contemporary issues, such as disaster mitigation. Johan (2021) found that integrating disaster mitigation into basic education enhances students' awareness of disaster preparedness. His study underscores the urgent need for disaster mitigation-based textbooks in disaster-prone areas to improve students' disaster literacy from an early age. Similarly, Wendo et al. (2017) highlighted that thematic textbooks tailored to local contexts can increase students' motivation to learn. Their research demonstrated that integrating environmental and disaster-related topics into Indonesian language textbooks not only improved students' subject comprehension but also heightened their awareness of environmental issues. Additionally, Ningsih et al. (2022) explored the development of an Android-based landslide mitigation e-book as an interactive learning tool, further supporting the importance of innovative disaster education resources.

While previous studies recognize the importance of disaster mitigation education and the role of textbooks in facilitating learning, limited efforts have been made to develop textbooks that explicitly incorporate disaster mitigation content into the Indonesian language curriculum at the junior high school level. This gap is particularly concerning given the high disaster risk in Palu City, where many students and teachers lack adequate teaching materials on this subject.

This study addresses this gap by identifying and analyzing the need for disaster mitigation-based textbooks for Indonesian language learning in junior high schools in Palu City. Using the ADDIE Research and Development (R&D) model, it takes the first steps toward bridging this deficiency, focusing on three critical aspects: content relevance, engaging presentation, and accessible language. By doing so, this research offers valuable insights into effectively integrating disaster mitigation education into the Indonesian language curriculum—an area that has received limited attention to date.

The main objective of this study is to provide a solid foundation for the development of disaster mitigation-based open textbooks that are relevant, interesting, and by local needs. This textbook is expected to improve students' language skills while equipping them with practical knowledge about appropriate actions in disaster situations. This study focuses on the "Analysis" stage in the ADDIE model R&D approach. The selection of this focus aims to understand the needs of students and teachers, as well as identify important aspects in the development of open textbooks, such as materials, presentation, and language. This analysis stage provides direct input in ensuring that the textbooks developed are truly by the local context and educational needs in disaster-prone areas such as Palu City. Therefore, this study seeks to fill the gap in disaster education through more contextual and relevant open materials, while supporting community preparedness through formal education in schools.

2. METHODS

This study uses a Research and Development (R&D) approach with the ADDIE (Analysis, Design, Development, Implementation, Evaluation) model. However, this study only focuses on the Analysis stage (Rustandi, 2021). This stage was chosen because it is a very important initial step to identify the needs and expectations of students and teachers for disaster mitigation-based textbooks. The information obtained from this stage will be a strong foundation for the development of subsequent stages, such as the design, development, and implementation of open materials. The focus on the Analysis stage is also due to the limited time and research resources but still makes a significant

contribution by producing relevant and contextual initial data. The research subjects consisted of students and teachers from several junior high schools in Palu City, who were selected using purposive sampling to ensure the representation of schools in disaster-prone areas. The number of students who became respondents was 100 people, selected randomly from grades VII to IX, while 20 Indonesian language teachers participated. The criteria for selecting subjects included school locations that were at high risk of disasters, as well as the teacher's experience in teaching Indonesians that were relevant to local issues such as disaster mitigation. This approach ensures that the study shows the relevant population in disaster-prone areas.

Data collection was carried out through a questionnaire specifically designed to identify the use of open books and the need for disaster mitigation materials. The questionnaire design was developed based on observations of literature and previous relevant research in the context of disaster mitigation education. Questions in the questionnaire cover aspects of the use of current textbooks, the relevance of the material to disaster mitigation issues, and the need for the development of teaching materials. To ensure the clarity and validity of the instrument, this questionnaire was first tested on a small sample outside the main respondents. In addition, the questionnaire was reviewed by experts in education and disaster mitigation to ensure that the questions asked were to the research objectives and the local context in Palu City. With this approach, the study is expected to provide a comprehensive picture of the need for the development of disaster mitigation-based textbooks in Indonesian language learning. The data generated from this analysis stage will be an important foundation for the development of the next stage in the ADDIE model, and it will contribute to efforts to improve student readiness for disaster risk through formal education.

The data collection process in this study was carried out through several stages involving the preparation of a questionnaire based on three main aspects studied: Material Aspect, Presentation Aspect, and Language Aspect. The Material Aspect focuses on the needs of students and teachers for disaster mitigation content that is relevant to learning Indonesian. Some examples of questions asked in this section include: "What are the disaster mitigation topics that need to be included in the textbook?" The Presentation Aspect relates to the form of material delivery, the use of visual elements, and activities that support understanding. Relevant questions for this aspect include: "Is the form of material presentation used in the textbook easy for students to understand?" The Language Aspect measures language comprehension, correct use of grammar, and variations in language style used in open books. Questions included in this category include: "Is the language used in the textbook easy for students to understand?" and "How appropriate is the use of grammar and variations in language style in open books with students' abilities?" The main instrument used in this study was a questionnaire distributed to students and teachers at junior high schools located in Palu City. This questionnaire was filled out directly at school with guidance from the researcher to ensure that respondents understood each question asked. The data obtained from the questionnaire were then processed to obtain a clear picture of the need for disaster mitigation-based textbooks based on the expectations and needs of students and teachers.

The data collected in this study were analyzed using quantitative descriptive analysis techniques to describe the level of student and teacher needs related to each aspect studied. After the questionnaire was distributed, the data collected was processed by calculating the percentage of responses from each question asked. Each aspect studied—material, presentation, and language—was analyzed to determine the extent of the needs and expectations of students and teachers for disaster mitigation-based textbooks. For example, for questions about the relevance of the material, the percentage was calculated based on the number of respondents who chose certain options, such as "Strongly Agree", "Agree", "Disagree", and so on. This percentage was then used to indicate the level of importance or need for each element of the material, presentation, or language in the open book. The data collection process was carried out following ethical procedures. The researcher provided clear guidance to the respondents before completing the questionnaire to ensure they understood the questions asked and felt comfortable providing honest answers. The questionnaire was filled out directly by the respondents

at school with a time limit of around 20-30 minutes, and the researcher remained on site to assist if needed. The data collection process was also carried out by paying attention to the consent and confidentiality of the information provided by the respondents. The results of this quantitative descriptive analysis were then used to identify specific needs in the development of disaster mitigation-based textbooks. The data obtained informed the next stage of the R&D (Research and Development) process, with the findings providing a basis for research into content design, presentation of materials, and language adjustments that are appropriate to the needs of students and teachers. Thus, this analysis does not only describe the data but also directs the steps for developing relevant and effective textbooks to be implemented in junior high schools in Palu City.

3. FINDINGS AND DISCUSSION

3.1 Findings

The results of the study on the need for disaster mitigation-based textbooks for learning Indonesian in junior high schools in Palu City were conducted using the ADDIE model development procedure. This procedure includes the following steps: Analysis, Design, Development, Implementation, and Evaluation. However, in this study, only the Analysis step was applied, namely by conducting a needs test. At this analysis stage, a needs test was conducted using a questionnaire to evaluate the need for textbooks for students and teachers in junior high schools in Palu City. Respondents in this needs test consisted of students and teachers of junior high schools in Palu City. The data obtained were presented by displaying the answers most often chosen by respondents, and the results were depicted in a graph in the graphic image. The needs analysis focused on the material, presentation, and language aspects.

3.1.1 Material Aspect

The results of the questionnaire regarding the needs of students and teachers related to disaster mitigation-based textbooks in Indonesian language learning can be seen in Figure 1. This graph illustrates the material aspects that are considered important by students and teachers, such as the need for open books equipped with pictures and visual elements, as well as relevant information regarding disaster mitigation. Readers can see how this visual data shows the importance of interesting and easy-to-understand materials for students, as well as the relevance of disaster mitigation topics that must be included in the curriculum. This figure provides an overview of student and teacher preferences for the format and content of open books that can improve understanding and disaster preparedness.

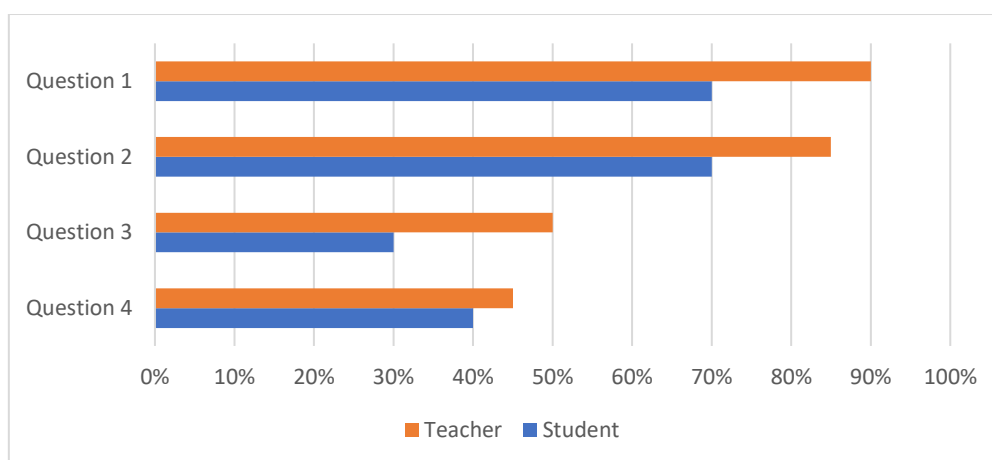


Figure 1. Results of the Student and Teacher Needs Questionnaire on the Material Aspect

The questionnaire results indicate that printed textbooks remain the primary learning resource for Indonesian language instruction in junior high schools (SMP) in Palu City. Approximately 70% of student respondents and 90% of teacher respondents consider printed books their main source of learning, while 70% of students and 85% of teachers report frequent use of printed materials in the teaching and learning process. Despite rapid digital advancements, printed books continue to be relevant and reliable, particularly in regions with limited digital infrastructure (Sylvia et al., 2021). Pohan (2020) further supports this by emphasizing that printed books provide stable, easily accessible information compared to digital sources.

However, the study also reveals a significant gap in the integration of disaster mitigation content within the curriculum. About 30% of students and 50% of teachers report not having textbooks that cover disaster mitigation, highlighting the scarcity of teaching materials on this critical topic. Additionally, 40% of students and 45% of teachers state that they have never received or delivered lessons on disaster mitigation. This discrepancy underscores the gap between the recognized importance of disaster preparedness education and its actual implementation in Palu City's education system, resulting in low disaster awareness and preparedness among students and teachers.

These findings emphasize the urgent need to incorporate disaster mitigation materials into the junior high school curriculum and provide teacher training to ensure effective delivery. Addressing the lack of teaching resources and limited teacher training is essential to strengthening disaster preparedness and awareness in schools.

3.1.2 Presentation Aspect

The results of the questionnaire related to the needs of students and teachers in the aspect of open-book presentation can be seen in Figure 2. This graph illustrates the preferences of students and teachers related to the open book presentation format, such as the desire for books equipped with pictures, visual elements, and questions or quizzes to increase engagement in learning. Readers can see that both students and teachers value the importance of materials presented in an interesting and easy-to-understand manner. This image provides a clear picture of their expectations regarding the presentation of open books that can help increase learning motivation and understanding of disaster mitigation material.

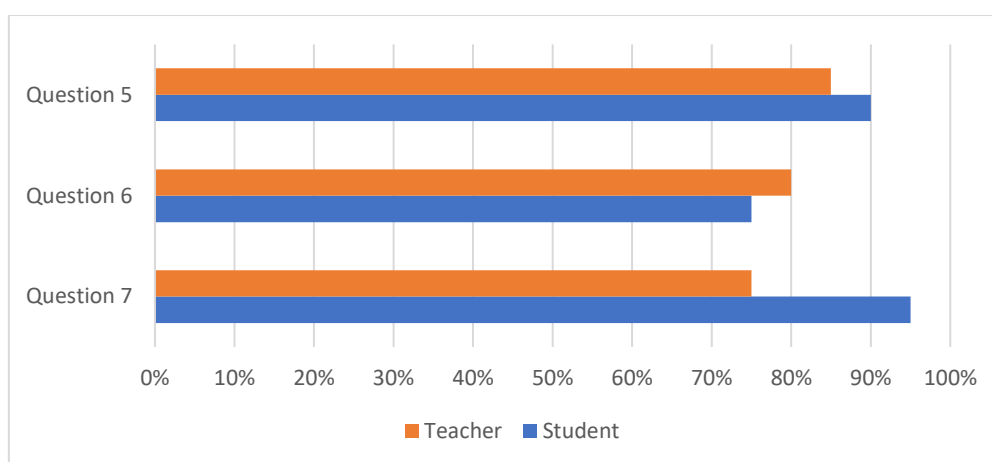


Figure 2. Results of the Student and Teacher Needs Questionnaire on the Aspect of Textbook Presentation

The results of the questionnaire related to the presentation aspect of disaster mitigation textbooks show that both students and teachers want materials that are presented interestingly and interactively. As many as 90% of students and 85% of teachers emphasized the importance of material explanations that are equipped with images, contextual information, and other visual elements to improve

understanding, especially for complex topics such as disaster mitigation. Students are more interested in materials that are presented visually and contextually, while teachers want more in-depth and informative explanations. In addition, both students and teachers also considered the importance of interesting questions and quizzes to support disaster mitigation learning. As many as 75% of students and 80% of teachers stated the need for more innovative, interactive, and quality questions. Quizzes, for example, can function not only as an evaluation tool but also as a means to increase student engagement and practice their language skills. This is in line with findings showing that well-designed questions can increase student motivation and engagement in learning. Furthermore, 95% of students and 75% of teachers considered the importance of presenting open material that is informative and mentions interesting facts. These facts are not only relevant to the material but can also trigger students' curiosity and increase their intrinsic motivation to learn. Teachers also underline the importance of accuracy and relevance of information in open materials to ensure that students receive useful and contextual knowledge. Overall, these findings indicate that the presentation of disaster mitigation material in Indonesian language textbooks in junior high schools needs to be more interesting, interactive, and relevant to the context of students' lives to improve their understanding and engagement in learning.

3.1.3 Language Aspect

Figure 3 shows the results of a questionnaire related to students' and teachers' needs for the language aspect in textbooks. This graph illustrates the importance of using simple and easily understood language by students, as well as proper grammar and interesting language variations. The data show that most students and teachers want textbooks that use language that is appropriate to their level of understanding. This reflects the need to present material in clear language, which not only supports students' understanding but also increases their engagement in learning. This figure illustrates the importance of paying attention to the language aspect in developing disaster mitigation-based textbooks to ensure that the material can be well understood by students in disaster-prone areas.

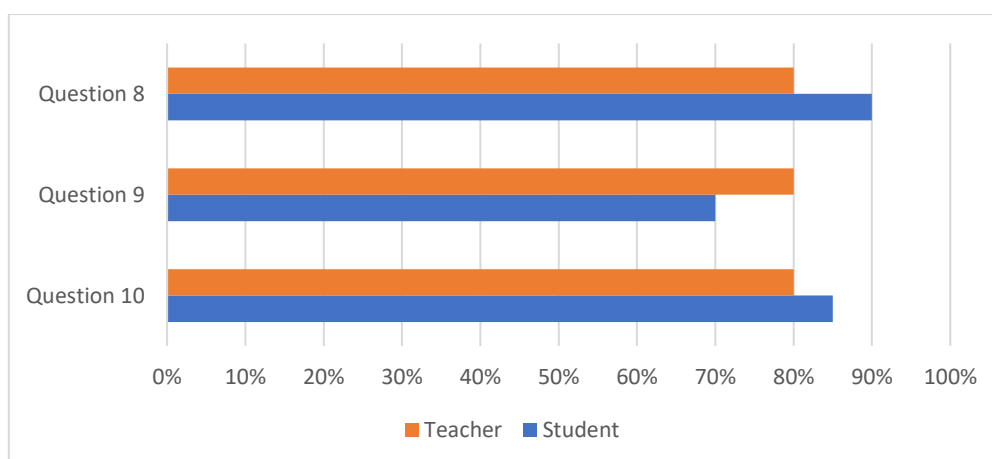


Figure 3. Results of the Student and Teacher Needs Questionnaire on the Language Aspect of Textbooks

The language aspect in disaster mitigation textbooks plays an important role in supporting understanding and learning effectiveness. The three language elements considered in this study are language style, grammar, and language variation. Language Style: Most respondents (90% of students and 80% of teachers) emphasized the importance of using easy-to-understand language in textbooks. A simple and clear language style is needed, especially in the context of complex materials such as disaster mitigation. Students and teachers argued that the language used should be relevant to students'

daily experiences, helping them connect the material to real life. This finding is in line with the opinion that underlines that language that is appropriate to student's level of understanding will increase learning effectiveness. Grammar: 70% of students and 80% of teachers stated the importance of using correct grammar, including correct spelling and punctuation. The use of correct grammar not only makes it easier for students to understand but also serves as a good example for them in learning language rules. This is very important to ensure the quality of open materials and support the development of students' language skills. Language Variation: 85% of students and 80% of teachers considered the importance of language variation in textbooks, including variations in writing style and sentence types. Appropriate language variation can increase student engagement and broaden their understanding of the material. By integrating different writing styles and sentences, textbooks can make learning more interesting, dynamic, and effective, as well as help students develop critical and analytical thinking skills. Overall, these findings highlight that for effective disaster mitigation textbooks, it is important to use simple language, proper grammar, and appropriate language variation to maintain students' interest and enhance their understanding.

3.2 Discussion

Based on the research results, the use of printed books is still the main source of learning due to the ease of physical access and the stability of the information it offers, especially in areas with limited digital technology. Printed books allow for the presentation of well-structured materials, making it easier for students to mark, take notes, and systematically review information (Samsiyah, 2016). This underlines the effectiveness of printed books as a reliable learning aid. These findings suggest that effective textbooks must be able to accommodate students' preferences, especially in terms of materials presented visually and interactively. Students prefer materials that are equipped with pictures and illustrations, which not only beautify the appearance of the book but also help them understand the material better. Therefore, printed books that are equipped with strong visual designs and interactive elements such as practice questions, quizzes, and other activities can significantly increase student engagement. By integrating these elements, textbooks can strengthen students' critical thinking and support their language skills, while making the learning process more interesting and effective. To achieve optimal learning outcomes, disaster mitigation textbooks need to be designed with visual and interactivity needs in mind, which can maximize student engagement and support a deeper understanding process (Safitri, 2024).

The results of the questionnaire showed that students highly appreciated the presence of interesting questions and quizzes in the textbook, which could increase their motivation and engagement in learning. This finding is in line with previous research showing that interactive elements such as practice questions and quizzes have a positive impact on increasing student engagement (Widayati, 2020). These interactive activities allow students to apply the knowledge they have learned in a practical context, which in turn strengthens their understanding of the material. This study also revealed that printed textbooks equipped with disaster mitigation materials can provide a deeper understanding of disaster preparedness, a topic that is often underrepresented in the school curriculum. In line with these findings, research by Andriani (2021) shows the importance of integrating global issues, such as disaster mitigation, into school learning to increase students' awareness and understanding of the topic. Relevant and disaster mitigation-focused textbooks can play an important role in this regard, helping students learn what actions to take in an emergency. In addition, the findings of this study indicate that teachers need well-structured textbooks to deliver material effectively. Printed textbooks allow for the presentation of material in a logical and orderly sequence, which helps teachers plan and implement the learning process better. Research by Widayati (2020) also stated that systematic textbooks make it easier for teachers to deliver material consistently and easily understood by students. Thus, the results of this study confirm the importance of a structured textbook design, which not only supports students in understanding the material but also helps teachers in carrying out the teaching process more effectively.

Based on the findings of this study, several important issues need to be considered in developing effective textbooks for learning. First, in terms of content relevance, this study shows a significant lack of disaster mitigation material in textbooks used in schools in Palu City. Around 30% of students and 50% of teachers reported that they did not have textbooks that discussed disaster mitigation, indicating that many schools do not yet have adequate open materials on this important topic. This finding is in line with Fitriani's research (2023), which found that disaster mitigation education is often underrepresented in the school curriculum, especially in disaster-prone areas. In addition, around 40% of students and 45% of teachers in this study admitted that they had never received or delivered disaster mitigation material. This illustrates the gap between the need for disaster mitigation education and its implementation in the curriculum in Palu City.

These challenges may be due to the lack of curriculum integration, limited resources, and lack of teacher training. In line with that, Tyas et al. (2020) also stated that integrating disaster mitigation into the education curriculum is still a major challenge in many regions, including Indonesia. Therefore, the development of disaster mitigation-based textbooks in Indonesian language learning at junior high schools in Palu City is urgently needed to meet educational needs that are relevant to the local context. In addition, the findings also highlight the importance of visual and interactive design in textbooks. The results of the questionnaire showed that students preferred textbooks that were equipped with interesting activities, practice questions, and quizzes that not only increased their engagement but also provided useful evaluation tools for teachers. Textbooks designed with attractive visual elements and interactive components can help students learn more dynamically and effectively, and support their understanding of the material being taught. These interactive activities also provide opportunities for students to apply what they have learned in practical contexts, which for example can increase their motivation to learn (Hariyono, 2023).

Finally, these findings underline the importance of linguistic accessibility in textbooks, especially for complex materials such as disaster mitigation. Many schools in Palu City face obstacles in terms of access to relevant and easy-to-understand textbooks. This suggests that the use of accessible language in textbooks is crucial, especially in delivering topics that are sometimes underrepresented in the curriculum. Textbooks that adopt clear and simple language, and that are appropriate to student's level of understanding, can help address this issue and ensure that learning materials can be well understood by students (Azhar et al, 2024). Therefore, developing textbooks that take into account students' language abilities and deliver information in a simple yet effective manner is essential (Yuniar, 2018). Overall, these findings suggest that effective textbooks should include content that is relevant and appropriate to educational needs in disaster-prone areas, and supported by attractive visual designs and interactive elements that can enhance student engagement. In addition, it is important to consider linguistic accessibility to ensure students' optimal understanding. Textbooks that combine these three aspects will greatly support a more effective learning process that is relevant to the needs of students and teachers.

The presentation of material in textbooks is a crucial aspect in improving the quality of learning, especially for complex topics such as disaster mitigation. The results of the questionnaire showed that students prefer textbooks that are equipped with many images and visual elements. This is not just an aesthetic preference but also reflects how visual elements can strengthen students' understanding of the material being taught. Susetyo (2023) argues that presenting material visually can make complex information easier to understand and more interesting for students. This finding indicates that textbooks with good visual design can help students connect abstract information with concrete representations, which in turn increases their engagement in learning. In addition, 85% of teacher respondents emphasized the importance of delivering informative but interesting material. This shows that teachers not only want textbooks that convey information clearly and systematically but also can attract students' attention. Why is this important? Informative and interesting textbooks not only provide knowledge to students but also stimulate their curiosity. Sunarti (2016) emphasized that relevant and interesting information has a direct impact on students' intrinsic motivation. In other

words, when students feel interested in the material presented, they are more likely to actively participate in learning, which can improve their learning outcomes. Therefore, the development of textbooks that meet this second criterion is very important in improving the quality of education in SMP Kota Palu.

However, these findings also reveal a bigger challenge, namely the absence of disaster mitigation materials in the curriculum. This study shows that disaster mitigation materials are still poorly integrated in textbooks used in Palu City, reflecting a gap in the provision of teaching materials that are relevant to local needs. This fact raises questions about the wider impact: why is disaster mitigation material not sufficiently available in textbooks? One possible reason is the failure to meet integration requirements on this topic, as well as limited resources and teacher training in disaster-prone areas. This suggests the need to develop textbooks that focus more on disaster preparedness, which can reduce educational gaps and help create a more disaster-responsive society. If the curriculum in Palu City can be adapted to include more disaster mitigation topics, then students will not only be better prepared to face disasters but will also be better able to understand their role in preventing or reducing the impact of disasters.

These findings highlight the critical role of textbooks that are not only informative and visually engaging but also contextually relevant, particularly in disaster-prone areas like Palu City. Well-designed textbooks can enhance student comprehension and engagement while addressing broader educational needs. Thus, integrating disaster mitigation content into comprehensive textbooks is a crucial step toward ensuring quality education that is directly applicable to students' lives.

The linguistic aspect of textbooks plays a fundamental role in facilitating comprehension. According to Pratama (2024), clear and simple language ensures that students can effectively grasp the material. This aligns with findings from the study, where teachers identified the use of straightforward and accessible language as a key element of effective textbooks. Safitri (2022) further supports this, stating that language tailored to students' cognitive levels significantly enhances learning outcomes. When textbooks use language that is easy to understand, students can access information more efficiently, leading to improved academic performance.

Additionally, proper grammar is essential for reinforcing language structure and improving students' language skills. Teachers emphasize the importance of clear and consistent grammatical instruction within textbooks, as it sets a standard for correct language use (Angela, 2024). The inclusion of well-structured grammar not only aids in material comprehension but also serves as a valuable tool for language development.

Another key finding is the importance of language variation in textbooks. A diverse range of writing styles and sentence structures can make learning more engaging and dynamic. Sobari (2012) notes that varied writing styles help students process and retain information more effectively. Similarly, Hasanah et al. (2024) found that linguistic variation in textbooks enhances student engagement and understanding.

Based on these findings, several recommendations emerge for textbook development. First, textbooks should use simple, clear, and age-appropriate language to maximize accessibility. Second, they must integrate correct grammar to model proper language use. Third, diverse writing styles and sentence structures should be incorporated to maintain student interest and encourage active learning. Furthermore, teacher training programs should focus on effective textbook use and language instruction strategies to enhance teaching quality. In the broader context of curriculum development, textbooks that prioritize clarity, accuracy, and linguistic diversity can foster a more inclusive, engaging, and effective learning experience for students.

The results of this study indicate a significant need for disaster mitigation-based textbooks in Indonesian language learning at junior high schools in Palu City. These findings reveal a clear understanding of the importance of disaster mitigation materials and their implementation in the existing curriculum. Although printed textbooks remain the dominant source of learning, the development of textbooks that integrate disaster mitigation materials, attractive presentations, and

easy-to-understand language is essential to improving students' understanding and disaster preparedness. More broadly, these findings provide important implications for education policy, especially in terms of developing a curriculum that is more responsive to local needs and potential disaster risks. The development of disaster mitigation-based textbooks can be a first step to reducing educational gaps and awareness and improving disaster preparedness among students (Yusmaniar, 2024). In addition, well-designed textbooks can be a very useful tool for teachers to deliver materials more effectively and interestingly, which will ultimately contribute to improving the quality of education in disaster-prone areas such as Palu City. As a next step, further research needs to be conducted to explore the development and implementation of disaster mitigation-based textbooks in a broader context. Such research can focus on analyzing the success of textbook implementation in increasing disaster awareness in various schools, as well as measuring its impact on students' abilities in dealing with disaster situations. In addition, development for training teachers to optimize the use of disaster mitigation-based textbooks also needs to be considered to ensure their effectiveness in the learning process.

4. CONCLUSION

This study highlights the urgent need to integrate disaster mitigation materials into Indonesian language textbooks for junior high schools in Palu City. Despite printed books being the primary learning resource, many schools lack content related to disaster preparedness. This gap underscores the importance of incorporating disaster education into the curriculum, especially in disaster-prone areas. To enhance learning effectiveness, textbooks should include engaging visuals and relevant disaster preparedness information to improve student understanding and motivation. Additionally, using clear and accessible language will help students grasp the material while developing their language skills.

These findings contribute to the development of teaching materials that better address the needs of students in disaster-prone areas. Future research should focus on evaluating the effectiveness of disaster mitigation-based textbooks in schools and their impact on students' preparedness. Training programs for teachers on integrating disaster education into lessons should also be prioritized. Beyond textbook development, this research has broader implications for education policies and disaster preparedness. By equipping students with essential knowledge and skills, schools can play a crucial role in building a more disaster-resilient generation.

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