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Contextualized Instructional Video Material on Disaster Readiness and Risk Reduction (DRRR) for Senior High School in Camarines Sur, Philippines

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ABSTRACT

This study focuses on creating a Contextualized Instructional Video Material for DRRR (DRRR) for Senior High School in Camarines Sur, Philippines. The research used a descriptive-developmental design, gathering data through questionnaires and interviews to identify the instructional materials currently used by teachers in teaching DRRR. The study found a lack of contextualized instructional materials in Senior High School, which poses challenges in delivering effective lessons. Feedback from DRRR teachers and ICT coordinators highlighted the need for resources that are relevant to the local context. The findings emphasize the importance of developing contextualized instructional materials to address this gap and support effective teaching. The study recommends making these resources easily accessible to enhance student learning and maximize their benefits.

INTRODUCTION

The rapid advancement of technology has transformed education, playing a vital role in developing 21st-century skills among learners (Darling-Hammond *et al.*, 2020). This shift has encouraged educators to innovate and develop learning materials that cater to the evolving needs of modern education. These innovations not only enhance the intellectual development of teachers but also provide students with engaging and effective learning experiences. However, developing high-quality instructional materials requires technical expertise, deep content knowledge, and a significant time investment—a challenge for many educators already burdened with heavy workloads (Gbenoba & Dahunsi, 2014). Secondary school teachers often cite insufficient time and resources as major barriers to creating teaching aids (Assefa, 2019). Furthermore, integrating technology effectively into classrooms requires a shift in teaching practices and continuous professional development (Huang, 2022). Video-based instructional materials have proven to be powerful tools for enhancing teaching and learning. Studies highlight their effectiveness in increasing student engagement, aiding comprehension of complex topics, and accommodating diverse learning needs (Mayer, 2021). Schools with consistent internet access benefit significantly from digital materials, yet those in remote areas face challenges due to limited connectivity. These disparities hinder equitable learning opportunities, creating a digital divide (Moore *et al.*, 2011). The “online plus offline” hybrid teaching approach offers a solution by combining internet-based resources with offline materials, ensuring accessibility even in resource-limited settings (Graham, 2006). However, many educators lack adequate training in creating effective video materials, emphasizing the need for capacity-building programs (Suhairni & Baharsyah, 2020).

Disaster Readiness and Risk Reduction (DRRR), a core subject in the Senior High School curriculum in the Philippines, equips students with practical knowledge and skills to prepare for and respond to disasters. It bridges the gap between theoretical concepts and real-world applications, fostering community resilience (Department of Education, 2017). Given that disasters disproportionately affect vulnerable communities, integrating disaster education into the curriculum is essential for building a safer, more prepared society. Global educational initiatives emphasize the importance of integrating local knowledge and interactive strategies into disaster education. For instance, modules utilizing Kolb’s experiential learning model have demonstrated significant improvements in student engagement and performance in disaster risk reduction topics (Cabansag, 2023). Similarly, contextualized videos that incorporate real-life scenarios and spatial models enhance learners’ understanding of dynamic environments, such as evacuation procedures or emergency response planning (Wang *et al.*, 2007; Wang *et al.*, 2010). These materials not only improve comprehension of disaster scenarios but also promote critical thinking and problem-solving skills, essential for 21st-century education (Mayer, 2021). Additionally, instructional video materials based on established instructional design models, such as the SAM model used by Abengoza *et al.* (2025), have proven to be effective in supporting student learning. The iterative approach of SAM, which emphasizes continuous refinement and engagement with key stakeholders, ensures that instructional materials remain user-centered and relevant. Furthermore, research on using culturally relevant instructional materials, such as Bikol agricultural folksongs to enhance engagement and learning outcomes (Montales, 2021), highlights the importance of integrating

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local culture and context into educational tools. Moreover, the Technological Pedagogical Content Knowledge (TPACK) framework, which assesses teachers' ability to integrate technology effectively in pedagogy and content, has been widely studied (Ferrer, 2021). Understanding teachers' TPACK proficiency is essential in guiding the development of instructional video materials that align with their technological and pedagogical capacities.

Despite the promise of these tools, challenges remain in ensuring consistent implementation and resource availability across different educational contexts. To address these gaps, this study aims to develop contextualized instructional video materials tailored to the specific needs of DRRR education in the Philippines. By prioritizing local contexts and leveraging evidence-based strategies, the developed materials seek to enhance student understanding of disaster preparedness and foster proactive response planning.

Statement of the Problem

This study generally aimed to develop a Contextualized Instructional Video Material on DRRR for Senior High School (SHS) in Camarines Sur. Specifically, it aims to answer the following:

1. What instructional materials in DRRR are used in Senior High School in Camarines Sur?
2. What instructional video can be developed to support teaching?
3. What are the teachers' evaluation results on the developed instructional video material on DRRR for Senior High School?

MATERIALS AND METHODS

Research Design

This study used a descriptive-developmental research design to address the research questions. The descriptive design was applied to identify the instructional materials

currently used in teaching DRRR in Senior High School in Camarines Sur. It also described the newly developed instructional material designed to support teaching and gathered teacher evaluations of the contextualized instructional video material for DRRR.

The developmental design focused on creating the Contextualized Instructional Video Material for Senior High School DRRR. This involved incorporating local contexts and relevant disaster scenarios to enhance learning and align with the needs of teachers and students. Similar study such as of Gbenoba and Dahunsi (2014) have utilized descriptive-developmental designs to create and evaluate instructional materials. They emphasized the importance of developing instructional materials tailored to specific educational needs, highlighting the role of descriptive and developmental approaches in addressing gaps in resources.

Respondents of the Study

The respondents of this study were DRRR teachers and ICT Coordinators. Five DRRR teachers provided information on the instructional materials they currently use in Senior High School and evaluated the newly developed Contextualized Instructional Video Material for DRRR. Five ICT Coordinators also assessed the video material. In total, there were 10 respondents.

Setting of the Study

The study was conducted at San Rafael National High School, a public secondary school in the Schools Division Office- Camarines Sur. It is located at San Rafael, Tigaon, Camarines Sur.

Data Gathering Instrument

The researchers utilized the validation tools for evaluation of the instructional video patterned in the validation tools of the Division of Camarines Sur-DepEd.

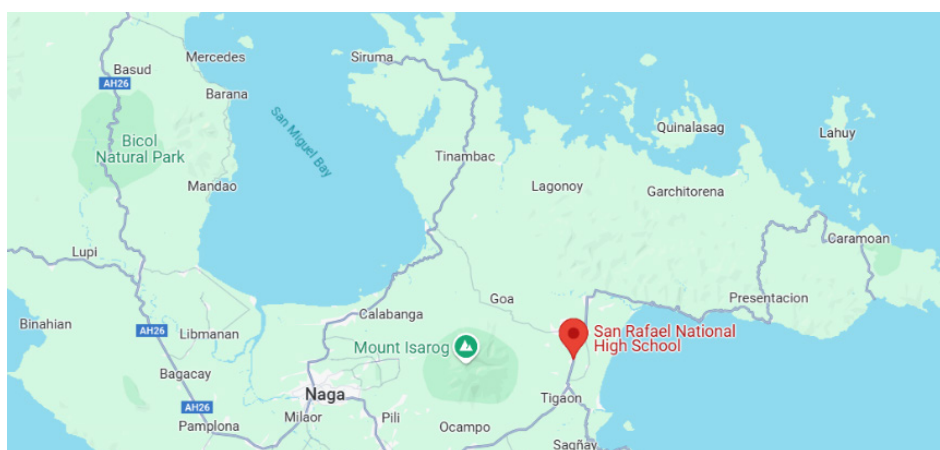


Figure 1: Location of San Rafael National High School

Data Gathering Procedure

The study's objectives were accomplished, and a series of steps was undertaken. Initial approval was sought from the School Principal and teachers of San Rafael

National High School to conduct the research. Once necessary permissions and request letters were obtained, a researcher's-made questionnaire was administered to determine the instructional materials used by the DRRR

teachers in senior high school. Based on the results, the researchers developed contextualized video material, and it was validated by five (5) DRRR subject teachers and (5) five ICT coordinators. To facilitate data analysis, the gathered questionnaires were tabulated. Descriptive statistics and a thematic approach were employed to analyze the data collected from the questionnaires for DRRR instructional materials used in Senior High School. Based on the DRRR teachers and ICT coordinator responses, recommendations were formulated.

Statistical Treatment of Data

The frequency count was utilized to determine the instructional materials used in teaching DRRR subject at Senior High School level. Further, it was also utilized to analyze and process the data from the evaluations of DRR teachers and ICT coordinators regarding the developed contextualized video material.

RESULTS AND DISCUSSIONS

The developed Contextualized Instructional Video Material on DRRR for Senior High School in Camarines Sur was evaluated in terms of existing instructional materials, the developed video's features, and teacher feedback. The findings are presented according to the study's research objectives.

DRRR Instructional Materials Used in Senior High School

The Philippines faces frequent natural disasters due to its location in the Pacific Ring of Fire, making disaster preparedness a vital component of basic education. The result of the present study indicated that modules and books are used in discussing and studying DRRR subject but there are no available contextualized materials even video materials. This result is supported by a study of Loquillano and Mercado (2022) evaluated the validation and classroom implementation of contextualized DRRR modules using a descriptive approach and a triangulation method that combined module evaluation, interviews, and observations. Five experts and 47 secondary school teachers participated in the research.

The study revealed significant gaps in the use of contextualized video materials in the teaching of DRRR, particularly in addressing hydrometeorological hazards like flooding. A majority of the respondents confirmed the absence of contextualized video materials specifically developed for their educational setting. One respondent highlighted that, "There were no video materials available for our classes, we share our actual experiences instead", underscoring the reliance on first-hand experiences rather than structured, multimedia instructional resources. Another respondent admitted to depending solely on modules during the pandemic, further demonstrating the limited availability of engaging and contextualized materials.

Reliance on Non-Standardized Video Materials

Given the absence of officially provided contextualized

videos, many teachers resort to online platforms such as YouTube, Facebook, and Instagram to find supplementary materials. While these platforms provide easily accessible content, they lack proper validation and do not always align with the Department of Education's (DepEd) Most Essential Learning Competencies (MELCs). This hinders the effectiveness of DRRR education, as unverified videos may contain misinformation or lack relevance to local disaster scenarios (Graham, 2022). The dependency on non-standardized content highlights a major gap in DRRR instruction, as teachers must spend additional time filtering and modifying online materials to meet educational standards.

Criteria for Selecting the Video Materials

Teachers who seek alternative video materials for DRRR instruction follow specific criteria to ensure their relevance and effectiveness in the classroom. The respondents in this study highlighted several key considerations when selecting instructional videos. First, the materials must align with the learning objectives and Most Essential Learning Competencies (MELCs) set by the Department of Education (DepEd) to ensure that they support the intended learning outcomes. Additionally, the videos should be directly relevant to the topic being taught, particularly in areas such as disaster preparedness, response, and recovery. Another crucial factor is the timeliness of information, as disaster-related content must reflect the latest developments, best practices, and real-life case studies to remain accurate and applicable.

Moreover, the suitability of the content for Senior High School learners is an essential factor in video selection. This includes ensuring that the language, presentation style, and complexity of the information are appropriate for the students' age and cognitive level. The clarity of visuals and audio is also a major consideration, as poor-quality materials may hinder student engagement and comprehension. Lastly, the availability of subtitles plays a critical role in making instructional videos accessible to a diverse range of learners, including those with hearing impairments or language barriers.

Despite these careful selection practices, teachers continue to express dissatisfaction with the lack of standardized, high-quality, and contextualized video resources for DRRR education. Many rely on online platforms like YouTube and Facebook, but these sources often lack validation and alignment with educational standards. This challenge aligns with the findings of Diquito (2024), who emphasized the urgent need for localized, multimedia-based instructional materials in science and disaster education. The study highlighted that integrating contextualized video content tailored to local disaster risks and preparedness strategies enhances student engagement and comprehension, ultimately improving disaster resilience education in schools.

Addressing this gap requires systematic efforts from educational institutions and policymakers to develop validated, high-quality video resources that meet DepEd

standards while incorporating real-life disaster scenarios and community-based preparedness strategies. By ensuring the availability of contextualized instructional videos, schools can better equip students with the knowledge and skills needed to respond effectively to disasters.

Preferred Features of Standardized Video Materials

Teachers in this study identified several essential features that they believe should be integrated into standardized DRRR video materials to enhance learning effectiveness. One of the key features is the inclusion of pre-tests and post-tests to measure student learning outcomes. These assessments help educators evaluate students' prior knowledge before watching the video and their comprehension after engaging with the content. Additionally, reflection and motivational questions are crucial in encouraging critical thinking and deeper engagement with the subject matter, allowing students to relate the information to real-life disaster scenarios.

Another important feature is the integration of subtitles and sign language, ensuring that the instructional videos are inclusive and accessible to all learners, including those with hearing impairments or language barriers. High-quality visuals and sound are also essential for maintaining clarity and engagement, as poorly produced materials may hinder comprehension and reduce students' interest in the topic. Lastly, the teachers emphasized the need for a combination of animation, interactive elements, and real-life scenarios to make the lessons more dynamic and relatable. The inclusion of real disaster footage, animated explanations, and hands-on simulations can enhance students' retention and understanding of complex DRRR concepts.

These preferences align with research on effective multimedia learning, which suggests that well-structured, interactive video content significantly improves student engagement and knowledge retention (Mayer, 2021). Additionally, studies published in the American Journal of Education and Technology (AJET) emphasize that contextualized instructional materials tailored to local environments and learners' needs can bridge learning gaps in disaster education (Rajabi *et al.*, 2022). By integrating these features into standardized DRRR videos, educators can provide students with comprehensive, accessible, and engaging learning experiences, ultimately strengthening their preparedness and response skills in times of disaster.

Challenges in Using Video Materials

Teachers in this study identified several significant challenges in selecting and using video materials for DRRR instruction, which affect the effectiveness of disaster education. One of the most critical barriers is internet connectivity issues. Many schools, particularly those in remote areas, struggle with unstable or limited access to the internet, making it difficult for teachers to stream or download educational videos. This issue restricts the integration of online learning resources, forcing educators to rely on offline materials, which may

not always be updated or engaging for students.

Another major challenge is the absence of contextualized video materials that are aligned with the Most Essential Learning Competencies (MELCs). Many existing instructional videos are generic or internationally produced, making them less relatable to students who need content tailored to local disaster risks and community-based preparedness strategies. The lack of validated and localized video resources forces teachers to search for materials online, which may not always be reliable or relevant to the Philippine educational setting. Teachers also expressed concerns regarding the misalignment of available video content with required competencies. Many of the videos found on platforms such as YouTube or Facebook may cover relevant disaster-related topics but do not fully align with the curriculum, requiring teachers to modify, contextualize, or supplement them with additional explanations. This adds to teachers' workload, as they must ensure that the materials meet learning objectives and accurately present DRRR concepts.

Additionally, the vagueness and excessive length of video materials pose a problem for educators. Some videos lack clarity, making it difficult for students to understand the information being presented. Others are too lengthy, leading to reduced student engagement and difficulty in maintaining focus. Teachers noted that effective DRRR instructional videos should be concise, well-structured, and visually engaging to sustain student interest and enhance comprehension.

These findings highlight the urgent need for the development of contextualized instructional video materials specifically designed for DRRR education in Senior High Schools. The materials should be validated to align with the MELCs, ensuring that they are accurate, engaging, and suitable for the target learners. Furthermore, improving access to reliable internet connectivity and enhancing teachers' digital literacy can help mitigate some of these challenges, enabling educators to better utilize multimedia resources in their teaching.

The development of Instructional Video to Support Teaching

The developed contextualized video instructional material was designed based on the Most Essential Learning Competencies (MELCs) for Quarter 2, Weeks 6 to 7, focusing on the concept and importance of disaster risk reduction and community-based disaster risk reduction and management (CBDRRM). The instructional video aims to enhance students' understanding of disaster preparedness and equip them with practical skills for emergency planning, particularly before, during, and after floods. This multimedia resource was developed to bridge the gap in DRRR instructional materials and provide an engaging, contextualized learning experience. The researchers ensured that the material followed the Evaluation Rating Sheet for Audio and Video Recordings from the Department of Education (DepEd) to meet

educational standards and engagement criteria. The video content was structured into four key segments, each addressing different aspects of flood preparedness:

Part 1 of the Instructional Video Material: Introduction and Real-World Context

The first section presents video clippings and images from news reports and community footage of Typhoon Kristine, which struck in October 2024. These clips were selected to capture students' interest and provide a realistic depiction of the impact of floods. The use of real-life disaster events serves as a powerful visual introduction, helping learners connect the lesson to actual experiences. Research suggests that visual storytelling is an effective way to engage students and enhance retention in disaster education (Mayer, 2021).

Part 2 of the Instructional Video Material: Preparedness Before a Flood

This section focuses on preventive measures that should be taken before a flood occurs. The video guides learners through steps to assess their community's risk, including:

- Identifying flood-prone areas
- Mapping evacuation routes and designated shelters
- Preparing emergency kits with essential supplies
- Elevating important personal belongings
- Ensuring clear and accessible doorways in case of evacuation

By highlighting community-based preparedness strategies, the video material reinforces the importance of proactive disaster planning. Studies show that community-driven preparedness initiatives significantly reduce disaster-related casualties (Rajabi *et al.*, 2022).

Part 3 of the Instructional Video Material: Safety Measures During a Flood

The third part of the video emphasizes critical actions during a flood to ensure personal safety and minimize risks. These include:

- Staying updated on weather advisories through radio, television, or mobile alerts
- Avoiding flooded areas and fast-moving water currents
- Moving to higher ground or evacuation centers as instructed by local authorities
- Helping vulnerable community members, such as

children, elderly individuals, and persons with disabilities. This section also includes real-life scenarios to demonstrate decision-making in crisis situations, helping students internalize key safety protocols. The importance of civic responsibility is also highlighted, encouraging students to support those in need during disasters.

Part 4 of the Instructional Video Material: Post-Flood Recovery and Safety Precautions

The final segment focuses on post-disaster recovery efforts and necessary safety measures after a flood subsides. The video outlines essential steps, including:

- Reporting damages to local authorities, including collapsed structures and downed electrical lines
- Documenting property damage for insurance or government assistance purposes
- Drying out furniture and household items by opening doors and windows to improve ventilation
- Wearing protective equipment (gloves, masks, and boots) while cleaning flooded areas to prevent health risks

The contextualized instructional video material developed in this study addresses the lack of localized, high-quality DRRR resources in Senior High School education. With the increasing frequency of climate-related disasters in the Philippines, there is an urgent need to enhance students' disaster preparedness through innovative and engaging learning materials. Given that traditional instructional materials such as modules and textbooks do not fully capture the dynamic and real-time nature of disasters, video-based instruction provides a more interactive and impactful learning experience.

The Result of Teachers' Evaluation on the Developed Instructional Video Material on Drrr for Senior High School

This study adapted the DepEd Evaluation Rating Sheet for the developed instructional materials. This tool focuses on the different factors such as (a) content, format/technical design, (c) presentation and organization, and (d) accuracy and up-to-dateness of information. A total of five (5) DRRR subject teachers teaching DRRR subject evaluated the contents and accuracy and up-to-dateness of information while the other five (5) ICT coordinators focused on the evaluations regarding format/technical design and presentation and organization of the developed instructional material.

Table 1: DRRR Subject teacher and ICT Evaluation results on the developed contextualized video material

Evaluation Criteria		Ave	Verbal Interpretation
Factor I. Content			
1.	Content is suitable to the learners' level of development.	4	Very Satisfactory
2.	Material contributes to the achievement of specific objectives of the learning area and grade level for which it is intended.	4	Very Satisfactory
3.	Material provides for the development of higher cognitive skills such critical thinking, creativity, learning by doing, inquiry, problem solving, and 21st Century Skills.	3.3	Satisfactory

4.	Material is free of ideological, cultural, religious, racial and gender biases and prejudices.	4	Very Satisfactory
5.	Materials arouses interest of target reader.	4	Very Satisfactory
6.	Adequate warning / cautionary notes are provided in topics and activities where safety and health are of concern.	4	Very Satisfactory
Factor 2. Format/Technical Design			
1.	Volume and quality of sound is appropriate	4	Very Satisfactory
2.	Pacing is efficient and appropriate to instructional purposes.	4	Very Satisfactory
3.	Audio-visual effects (music, sounds, graphics, etc.) are appropriate and effective for instructional purposes.	3.7	Very Satisfactory
Factor 3. Presentation and Organization			
1.	Presentation is engaging, interesting, and understandable.	3.7	Very Satisfactory
2.	There is logical and smooth flow of ideas.	4	Very Satisfactory
3.	Vocabulary level is adapted to target reader's experiences and understanding.	4	Very Satisfactory
4.	Length of the video/audio recording/lesson is appropriate to the attention span of the target learner.	3.7	Very Satisfactory
Factor 4. Accuracy and up-to-dateness of information			
1.	Conceptual errors	4	Very Satisfactory
2.	Factual errors	4	Very Satisfactory
3.	Grammatical errors	4	Very Satisfactory
4.	Computational errors	4	Very Satisfactory
5.	Obsolete information	3.7	Very Satisfactory
6.	Typographical and other minor errors (e.g. inappropriate or unclear illustrations, missing labels, wrong captions, etc.)	3.7	Very Satisfactory
General Average		3.88	Very Satisfactory

Based on the results in Table 3, the developed contextualized instructional video material is very satisfactory as indicated in the general average of 3.88. In line with its content, it observed the alignment of educational materials with the student's cognitive, emotional, and social capabilities. It corresponds to the student's age and learning stage, such as senior high school grade 11 as the main beneficiary of the material. Prior knowledge was also considered to relate to the current topic. It also shows suitability relevant to the student's experiences and interests. All pictures and videos used in the development of the video material were taken from the actual experiences of the community in handling natural hazards such as flooding. Through this, the students can thrive and develop critical thinking skills effectively. Teaching content via video enhances problem-solving skills and increases arousal, which positively affects learning outcomes (Hoogerheide *et al.*, 2019). It also contributes to achieving specific objectives as shown by the very satisfactory interpretation. It means that the material supports learning objectives appropriate to the student's level of understanding. Significantly, unbiased and inclusive concepts have been used by all teachers inside the class to promote a fair learning environment that respects the diverse types of students. On the other hand, the video material strongly highlights further enhancement in developing higher cognitive skills such as critical thinking, creativity, learning by

doing, inquiry, problem-solving, and 21st-century skills as indicated by a 3.3 average with verbal interpretation of satisfactory. This means that DRRR teacher evaluators extensively observe and aim for the best results in developing higher-order abilities from 21st-century learners. It was also suggested to provide subtitles to address multilingual education and support language learning as well as the diversified type of learners. Subtitles enhance accessibility for diverse linguistic communities by translating and synchronizing audio content into multiple languages.

In terms of format and technical designs, volume and quality of sound were properly observed which is appropriate to the student's learning. The pacing was substantially managed by careful examination of the speed and rhythm vital for maximizing classroom engagement. Through this, the students will be encouraged to stay focused and engaged and prevent distractions while maintaining the dynamic flow of instructions without feeling rushed. When instructional materials are paced well, students are more likely to engage, process information, and maintain participation during the teaching-learning process. Additionally, integrating both sound and visual elements in educational materials enhances learning experiences as it allows more dynamic and interesting unlike with common monotonous traditional verbal instructions. Audio-visual materials capture students' attention more effectively than traditional methods,

making learning more interesting and less monotonous (Syafitria *et al.*, 2023). It also allows teachers to illustrate complex ideas that may be difficult to convey and help students grasp abstract ideas more easily.

The results also show the need to observe appropriate audio-visual effects further as indicated in the result of 3.7 with the verbal interpretation of very satisfactory which is coherent to the study of study of Akay (2021), who stated that visual aids simplify complex concepts, aiding in the understanding of new vocabulary and ideas, especially for students with hearing impairments.

In line with presentation and organization, the developed video material contains a logical and smooth flow of ideas which is crucial to effective and impactful way of communication. It means that the video has a coherent organization of ideas with effective transitions as it allows the audience to understand complex topics. Clear organization aids in the identification of key concepts, making it easier for students to locate specific information quickly (Varchenko-Trotsenko *et al.*, 2019). It strictly observed the presentation of foundational concepts first before presenting complicated ideas. The smooth transitions also guide the students to understand specific concepts, preventing confusion. When the concepts are logically presented, students do not have to pause or backtrack to know how the ideas relate to one another, which promotes positive learning experiences while fostering better retention of information.

Subtitles and voiceovers are also essential to make the contextualized video material easier for the audience to follow and understand the narrative as well, especially the foreign language. This is supported by the study of Black (2022), that subtitles can boost language learning and literacy skills, particularly in children, by providing exposure to audiovisual content in other languages. This exposure also fosters intercultural awareness, making language learning a fun and engaging experience.

For accuracy and up-to-dateness of the material, the results significantly show free from any factual and conceptual errors. It means that all the details included in the development of materials are accurate and reliable as well. It prevents students from misleading and inaccuracies. Error-free video content fosters greater student engagement. The incorporation of authentic videos not only aids comprehension but also motivates learners to participate actively in the learning process (Devdariani & Rubtsova, 2021). Grammatical and computational errors were also addressed, resulting in a very satisfactory score of 4.0. It means it adheres to grammar, punctuation, and syntax rules. Through the aid of artificial intelligence or AI, the correct usage of parts of speech, proper sentence structure, and appropriate punctuation were attained. And so, with the computational error in which proper data processing was made as intended without bugs and any information loss.

This study implies that contextualized video material can lead to interactive learning experiences. The use of visuals stimulating educational resources can engage students'

learning and create positive and relatable connections between the lessons introduced inside the classrooms and real-world settings. Creating innovative tools aligned with the student needs are highly significant to navigate students learning achievement but also to the teachers who are constantly exploring teaching strategies to support and foster active teaching and learning process. Research has shown that digital learning materials improve student engagement and academic performance (Villasanta, 2022). In a study on digital learning materials for music education, Villasanta (2022) found that students performed significantly better after using instructional video materials, highlighting their effectiveness in enhancing knowledge retention and comprehension. This supports the integration of video-based learning in DRRR education, where visual and auditory components can better illustrate disaster preparedness concepts than traditional learning methods.

Moreover, the development of instructional materials should follow a structured framework to ensure effectiveness. The SAM (Successive Approximation Model), as discussed by Abengoza *et al.* (2025), provides a user-centered, iterative approach to instructional material design. This study on numeracy instructional videos demonstrated that a structured development process with iterative refinement leads to more effective learning materials. By applying SAM principles to DRRR video materials, this study ensures that the instructional content is systematically designed, validated, and refined based on educator feedback. The model's emphasis on Preparation, Iterative Design, and Iterative Development ensures that the final product meets pedagogical requirements and student needs (Abengoza *et al.*, 2025).

CONCLUSION

The study concludes that contextualized instructional materials play a crucial role in improving the quality of education, particularly in subjects where existing resources are limited. It also emphasizes the need for schools to invest in developing and providing these materials to ensure effective teaching and to equip students with the knowledge and skills needed for disaster preparedness. Making such tools widely accessible can significantly enhance student learning outcomes and contribute to building resilient communities.

Recommendations

Teachers may focus on developing contextualized instructional video materials for DRRR, ensuring they address practical and relevant topics that meet students' needs. These materials may also be accessible to maximize their impact on learning and disaster preparedness. Schools may involve parents, social workers, barangay officials, and students in community-centered activities such as earthquake drills and training sessions to foster disaster resilience.

Further research may explore the development of additional DRRR materials and the standardization of

procedures for activities like flood response, fire safety, and evacuation drills. These efforts may contribute to consistent and effective disaster management.

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