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*Research Article*

# Inclusive School Disaster Preparedness Plan: Giving Voice to Learners with Special Needs

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## About Article

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**ABSTRACT**

This study explores disaster preparedness in schools from the perspective of Special Education (SPED) teachers, highlighting the challenges, best practices, and suggestions in ensuring the safety of SPED learners before, during, and after any form of disasters in the province of Davao del Sur, Philippines. To address these objectives, this study employed a qualitative research design, specifically a phenomenological approach in uncovering the experiences of teachers handling learners with special needs in times of disaster. In addition, a total of nine teachers teaching in schools that offer a SPED program participated in the study and were chosen using purposive sampling technique. To analyze the qualitative data, researchers employed the Collaizi method of analysis to determine the emerging themes. Findings of the study highlight the disaster management limitations in the area with emphasis to the following limitations: lack of proper facilities and equipment, emotional limitations, and SPED learners limitations. These limitations can therefore hinder the evacuation of learners and teachers in times of disaster. To cope with these challenges, teachers employed a multifaceted approach in addressing the limitations they experienced before, during, and after any form of disaster. These approaches include use of learner-centered technique, systematic teacher involvement, regular training and drills, and use of a proactive approach. However, to further improve the school inclusivity in addressing disaster preparedness, participants suggested to enhance the information campaign and support mechanism tailored for SPED learners. By understanding these experiences and incorporating it into the planning mechanism, schools can therefore offer an inclusive learning environment wherein all students are safe and secure.

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## 1. INTRODUCTION

Republic Act No. 10121 or otherwise known as the Philippine Disaster Risk Reduction and Management Act of 2010 in the Philippines, acknowledged the importance of human life by providing the community with a mechanism on how to approach disaster resiliency. In the said law, it is mandated that the Department of Education in the country must be one of the governing agencies to be part of the National Disaster Risk Reduction Council (Republic of the Philippines, 2010). In 2015, the Department of Education released DepEd Order No. 37, s. 2015, which highlights the framework created for Disaster Risk Reduction and Management (DRRM) (Department of Education, 2015). In the said framework, safe learning facilities, school disaster management, and DRR in education are considered the pillars of DRRM. DepEd order No. 33, s. 2021 further solidifies the implementation of DepEd Order No. 37, s. 2015 by creating directives on promoting school-based disaster preparedness mechanisms across different areas in the country (Department of Education, 2021). However, despite having these policies, DRRM inclusivity is not properly documented and mentioned. These policies have later created issues, especially in handling learners with special needs before, during, and after any disaster. The Republic Act 7277, otherwise known as the Magna Carta for Disabled Persons of 1992 in the Philippines, outlines the different roles of the state to ensure that they are properly included in decision-making (Republic of the Philippines, 1992). In addition, the Republic Act 11650, otherwise known as Instituting a Policy and Services with Disabilities in Support of Inclusive Education Act of 2022, clearly states the roles of any institutions, either private or public schools, to have supporting facilities, infrastructures, and to promote security among learners (Republic of the Philippines, 2022). These governing laws have discussed how inclusivity should work in the education sector. Though the Department of Education has clear laws on DRRM, however, there is a lack of clear policies on merging these policies with the existing policies for learners with special needs. This creates confusion about how to integrate these policies properly, thus resulting in different interpretations and implementations (Velmonte & Doron, 2023). To properly implement these laws, a need for clear, contextualized, and operationalized plan must be carried out. In addition, ensuring participation from marginalized groups, as well as educators, administrators, and stakeholders, can be beneficial in creating a sustainable DRRM plan (Alarte, 2024; Balbido Epe, 2023; Sagun-Ongtangco *et al.*, 2016). Further, learning institutions are expected to safeguard students from multi-hazard catastrophe threats by considering the optimal distribution of risk-based educational programs. Thus, it is important to determine whether students and teachers are also aware and be equipped with emergency procedures (Widowati *et al.*, 2021). For such vulnerable people, schools may offer security while also enhancing knowledge and skills for disaster management of children aided by the support of their teachers. This way, educators and children are prepared during and after the disaster.

Literature suggests the crucial role of educators in times of disaster. In the Philippines, the Division of Southern Leyte conducted capacity-building on Special Education (SPED) teachers and DRRM coordinators to uplift their knowledge, awareness, and preparedness during disaster (Schools Division of Southern Leyte, 2019). A similar program was implemented for SPED teachers, Indigenous Education Teachers, and DRRM focal persons were conducted in Angeles City, Philippines (Good Neighbors International Philippines, 2022) and Zamboanga Del Norte, Philippines (Schools Division of Zamboanga Del Norte, 2022), with the aim of empowering educators to handle learners with special needs in times of disaster. These initiatives of different school divisions in basic education in the country ensure the preparedness of educators and school administrators to handle learners with special needs before, during, and after disasters.

Though different initiatives were conducted by different schools and divisions in the Philippines to empower SPED educators, a gap still exists on how to systematically and contextually approach inclusivity in DRRM. Creating sustainable plans that promote inclusivity in DRRM is crucial to addressing this gap. This timely solution is necessary because of different environmental issues that the world is facing, such as climate change and environmental degradation, that may enhance the occurrence of natural disasters in the country. To accomplish this, the following objectives are offered; (1) determine the challenges experienced by teachers handling learners with special needs in times of disaster; (2) determine the best practices that teachers employed; and (3) offer suggestions on how to enhance the disaster preparedness plan in the area that is inclusive in nature.

## 2. LITERATURE REVIEW

The Philippines is located in Southeast Asia and is home to approximately 115 million Filipinos by the end of 2023. This country is rich in natural resources primarily due to its geographical location (Luna, 2012). Currently, this country has a total of 7,641 islands (Baldia *et al.*, 2017) and is divided into three major islands (Luzon, Visayas, Mindanao). Moreover, this country is also located in the Pacific Ring of Fire, making this country vulnerable to disasters (Asian Disaster Reduction Center, n.d.). Natural disasters that this country experienced include typhoons, earthquakes, volcanic eruptions, flash floods, and landslides. In 2013, Super Typhoon Yolanda (Haiyan) hit the Philippines with a wind speed of more than 300 km/hrs. wreaking havoc on different cities and municipalities in the country (Salazar, 2015). This super typhoon has affected 475,000 people in 95,000 households and claimed thousands of lives. This typhoon is one of the many typhoons that have hit the Philippines in the last decade; some stronger typhoons that contributed to mass destruction in the Philippine economies are typhoons Lando (2015), Ompong (2018), Rolly (2020), and Odette (2021) (Mata *et al.*, 2023; Rodolfo *et al.*, 2016; Santos, 2021; Vinluan *et al.*, 2021).

Aside from that, the Philippines also has experienced many devastating earthquakes for the last decades. The most recent are the 7.6 magnitudes that occurred in Mindanao, followed by aftershocks that reached 6.9 magnitudes last December 2023 and affected the province of Davao del Sur and nearby provinces (Bird *et al.*, 2015). These earthquakes have severely affected the country, especially the most vulnerable community. Moreover,

the Philippines is also home to many active volcanoes that may cause great damage to the country. As of 2024, the Philippines holds a total of 24 active volcanoes and these active volcanoes are distributed to different areas in the country. Among the most prominent volcanic eruptions in the country that caused a significant amount of damage are the June 1991 Mt. Pinatubo eruption (Allen, 2021) and 1814 Mt. Mayon eruption (Mirabueno, 2001). These notable volcanic eruptions are some of the deadliest volcanic eruptions that happen in the country.

Further, the Philippines have experienced floods every year specially on the rainy season and if there is a tropical cyclone. The location of the Philippines in the tropical region makes the country one of the flood-risk areas on the map (Cabrera & Lee, 2020; Dulawan *et al.*, 2024). According to (PAGASA, n.d.), the Philippine's mean rainfall in a year varies from 965 to 4,064 mm. This rainfall resulted in devastating flooding in the country that resulted in the loss of life and damage to properties and the economy. Finally, another prominent natural disaster in the country is the landslide. Landslide is one of the natural disasters that occurs in the Philippines primarily due to heavy rainfall and typhoons (Jones *et al.*, 2023; Nolasco-Javier *et al.*, 2015). In addition, the Philippine's topography, which consists of mountains, is another factor that contributes to the occurrences of landslides in the country (Evans *et al.*, 2007). Aside from that, other factors, such as mining, also contribute to landslides in the country (dela Cerna & Maravillas, 2015).

The above-mentioned natural disasters are happening in the Philippines, and the province of Davao del Sur is among those areas that are prone to natural disasters. The Philippines has created several laws and initiatives to enhance the disaster preparedness of the country. Among these laws include Republic Act 11650 (otherwise known as Instituting a Policy and Services with Disabilities in Support of Inclusive Education Act of 2022) and Republic Act No. 10121 (otherwise known as the Philippine Disaster Risk Reduction and Management Act of 2010). These laws were implemented to ensure equitable access to quality services offered by the learners during a disaster. However, it has been shown that implementing these policies has several challenges (Acierto *et al.*, 2023). Some challenges include lack of policies and budget allocation, accessibility issues, community engagement (Alburo-Cañete *et al.*, 2023), limited awareness and education (Olores *et al.*, 2023; Sagun-Ongtangco *et al.*, 2016), and curriculum integration (Sumbillo & Madrigal, 2020). These challenges will profoundly affect learners, especially those with special needs, since the country is prone to natural disasters. Therefore, revisiting inclusivity in DRRM in basic education in the Philippines is very crucial to address equitable DRRM in schools.

## 3. METHODOLOGY

### 3.1. Research Design

The study adopted a qualitative research design and utilized phenomenological method to explore the experiences of SPED teachers in relation to their schools' disaster preparedness efforts, informed by Neubauer *et al.* (2019) approach. The essence of phenomenology in qualitative research is to illuminate the lived experiences and perceptions of individuals concerning a phenomenon. The aim was to understand and offer insights into the core of experiences by looking at them through the perspectives of those who have lived them (Neubauer *et al.*, 2019). This method yielded detailed insights into the challenges and effective practices of school disaster preparedness as understood by the participants (Guiamalodin *et al.*, 2024)

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### 3.2. Participants

This study was conducted in the province of Davao del Sur, Philippines. This province is part of the main island Mindanao and is located in the southern part of the Philippines (Caballes *et al.*, 2024; Moda *et al.*, 2023). According to the Pacific Disaster Center (2021) the inhabitants of the province may encounter natural hazards such as earthquakes, floods, landslides, droughts, storm surges, tsunamis, liquefaction, volcanoes, wildfire, and typhoon winds. Moreover, the participants of this study were teachers teaching in a Special Education Program (SPED) in the province of Davao del Sur.

The study employed a purposive sampling to select the respondents from selected SPED schools. This sampling method involves the researcher carefully selecting individuals for the sample based on their informed knowledge and willingness to provide relevant information for the study (Obilor, 2023). Moreover, in selecting the participants of the study, the following inclusion criteria were used: (1) SPED teacher with teaching in any SPED school for at least three (3) years, (2) must be teaching in a public school (Davao del Sur), and (3) willing to participate in the study. Exclusion criteria involve participants withdrawal from the study and deviating from the inclusion criteria. Upon careful selection, a total of nine participants participated in the study. This sample is similar to Rofiah *et al.* (2021) who investigated the perspectives of nine stakeholders on disaster mitigation education in an inclusive school context. Moreover, below is the profile of the participants:

**Table 1.** Profile of Participants

| Participant | Years in service | School |
|---|---|---|
| 1 | 15 | School 1 |
| 2 | 22 | School 1 |
| 3 | 10 | School 1 |
| 4 | 18 | School 2 |
| 5 | 15 | School 2 |
| 6 | 4 | School 2 |
| 7 | 5 | School 3 |
| 8 | 5 | School 3 |
| 9 | 22 | School 3 |

### 3.3. Research Instruments

The following are the research instruments used in the study: (1) researchers - the main instrument in the study who conducted the in-depth interview; (2) pen, notebook, and audio recorder - used to record the conversation and to capture the important statements of the participants, and (3) interview-guide questions - a set of questions framed to address the

research objectives of the study.

### 3.4. Procedures

The data collection process comprised several steps. The researchers first reviewed related literature to formulate the study's objectives and then developed an interview guide that aligned with the research objectives. After the formulation of research objectives and the conduct of a literature review, the researchers submitted the paper to the office of Davao del Sur, Department of Education for approval to conduct the study. Once approved, another letter was then submitted to the school principals of schools who offered the Special Education (SPED) Program for their approval. Once approved, the researchers then approached the teachers teaching in the SPED program for their approval to be the study participants (including the discussion of the nature of the study and their role in the study). After the participants' approval, the researchers asked the participants for their vacant time to commence the in-depth interview.

After the conduct of in-depth interview, the researchers then proceeded with the translation and transcription of the conversation. The transcript was then given back to the participants for approval before proceeding with data analysis.

### 3.5. Data Analysis

The used of Collaizi's method (Collaizi, 1978) of analysis was used in analyzing the qualitative data. Steps in Collaizi's method were applied in generating basic themes, organizing themes, and emergent themes of the study.

## 4. RESULTS AND DISCUSSION

### 4.1. Challenges Experienced by Teachers

Based on the analysis, there were 11 basic themes that were created from the interview. The transcripts of these themes are presented and coded in Matrix 1 descriptively. From these 11 basic themes, three organizing themes emerged. The first theme is Lack of Proper Facilities, the basic themes include no proper evacuation area, no proper evacuation plans, lack of equipment, and lack of clear directions. The second theme indicates emotional limitations, the basic themes that include are scared, stress, confused, feeling helpless, and panic attack. Finally, for the third theme indicates SPED learners limitations, this include the basic themes communication barrier and physical limitations of learners. From these three organizing themes, the emergent theme was created which is disaster management limitations. Presented in Matrix 1 are the transcriptions expressed by the participants during the interview.

**Table 2.** ***Matrix 1:*** Thematic Analysis of Challenges Experienced by Teachers in any Form of Disaster

| | | |
|---|---|---|
| Lack of Proper Facilities | No Proper Evacuation Area | "The current problem we face is that our designated evacuation area has water. That's the only option we have for evacuation facilities" - Participant 1, 4 |
| | No Proper Evacuation Plans | "we had one evacuation area on the ground, but the path was filled with debris. If you ran on the ground, you'd stumble and fall because the road was already disrupted" - Participant 2, 7 |
| | Lack of Equipment | "there is no available fire alarm and other tools that can inform us that there is an emergency. We just had to do our best to stay safe. In this building here, we experienced some difficulty" - Participant 3, 4 |
| | Lack of Clear Directions | "The pathway was blocked due to the collapsed stage, so the students had no choice to jump. They didn't have a passage anymore. When they got to the evacuation area, they had big bruises and swelling on their legs" - Participant 7, 8 |
| Emotional Limitations | Scared | "Our rooms were shaking, and we ran out immediately, but we had to carry our students with us. We couldn't just leave them behind. The children were naturally scared, but we comforted them and told them what to do. We held them close because they were afraid, and we wanted to make sure we could save them rather than ourselves" - Participant 2, 4 |
| | Stress | "we just had to run for our lives. I was really stressed because some of the people around me were panicking. It felt like you were in a state of panic. And it seemed like some of the teachers were too afraid and shaking. They had to be carried because they couldn't stand up, as they were exhausted, stressed, and physically drained" - Participant 2, 5 |
| | Confused | "It was really frightening. That's why it felt like the kids ran ahead, and I followed because I was the last one who realized what was happening here. I was the last one, and I didn't know what to do. If I stayed in the covered area I might get hit by falling debris. So, I just jumped in front of the garden and sprawled" - Participant 6, 7 |
| | Feeling Helpless | "you will really panic and think of your students. I have my child in other SPED program at that time. So, contacting for the safety of my child in SPED was challenging because they don't have any transportation after the earthquake. There was even no signal." - Participant 8 |

| | | |
|---|---|---|
| Emotional Limitations | Panic Attack | "We have an earthquake experience, and it was so intense. I felt so rattled but I have to prioritize my duty first as a teacher. Some of our school buildings are already old. The students ran without slippers and some students had to jump on the side that was not part of the room structure" - Participant 3, 4, 6, 9 |
| SPED Learner's Limitations | Communication Barrier | "you couldn't expect them to laugh or cry because they couldn't understand what was going on. I saw them with their dirty feet, no slippers, and their bags left behind. At first, they don't instantly process it; it will not sink in to them instantly because they can't feel it right away especially with children aged 5 to 6 to 7. We just placed them under the seat rest and held them" - Participant 4, 6, 7 |
| | Physical Limitations of Learners | "They did duck, cover, and hold. In fact, one of my students with low vision managed to get under a chair, but when he came out, he was still trembling." - Participant 1 |

The analysis reveals a multifaceted array of challenges faced by SPED teachers in disaster situations, underscoring the significant limitations in disaster management within special education settings (Figure 1). The figure is designed with interconnected circles to visually convey how various challenges—ranging from logistical constraints to emotional and physical limitations—create a complex network of disaster management limitations that SPED teachers must navigate. The data collected from the participants bring forth several themes, each highlighting different aspects of these challenges. These challenges highlight the experiences of teachers teaching in the SPED program in times of natural disaster.

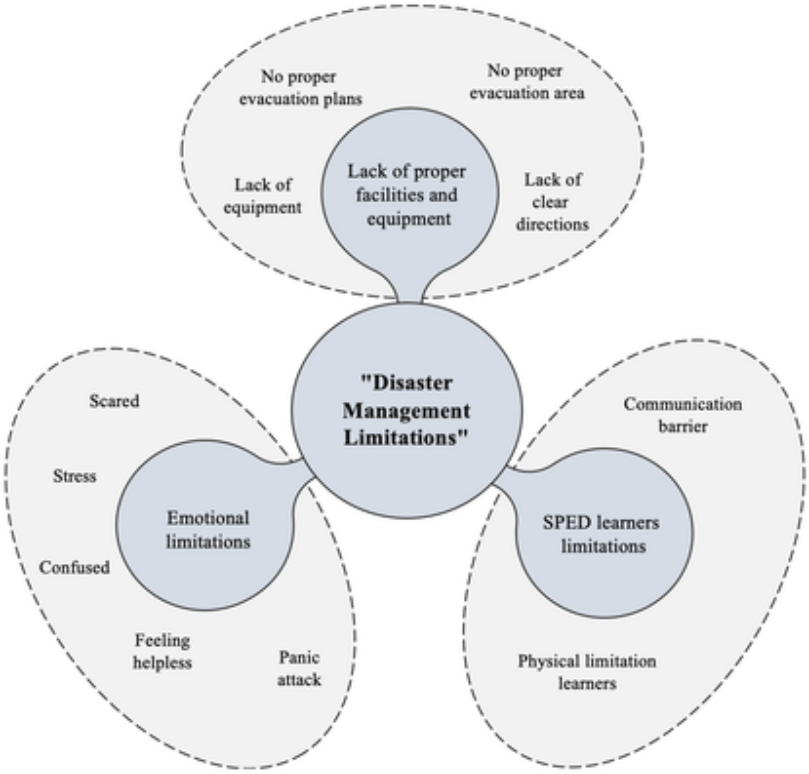


**Figure 1.** Disaster Management Limitations as the Emerging Challenge Experienced by SPED Teachers

The findings of the study emphasized the crucial role of inclusive disaster preparedness plans in schools to cater to the needs of the most vulnerable students in education institutions - the SPED learners. By giving voices to these groups of learners, education institutions give equal opportunity to each student. Moreover, the first person to implement these plans are the teachers who work tirelessly to protect and safeguard learners in times of disaster. By allowing teachers to share their experiences and insights, SPED learners are then given voices to this timely problem. Thus, this study is designed to determine the challenges, best practices, and suggestions of teachers to further enhance disaster preparedness plans in schools.

The findings of the study revealed that teachers experienced disaster management limitations primarily due to lack of proper facilities and equipment, emotional limitations, and SPED learner's limitations. In this study, the emergent theme of disaster management limitations is operationally defined as the range of difficulties faced by SPED teachers during crises, underscoring the inadequacies in existing protocols and

infrastructures to address emergency situations. Research by Kawasaki *et al.* (2022) substantiates this theme, arguing for the enhancement of disaster management training and the provision of adequate resources to educators in specialized teaching environments. This is further supported by Torani *et al.* (2019) who found that dedicated training programs for teachers in inclusive classrooms significantly increase the efficacy of disaster response, particularly for SPED learners. Additionally, Hidayat and Arwansyah (2021) highlight the critical gap in resources, advocating for specialized equipment and facilities that cater to the varied needs of SPED students during emergencies, thereby minimizing risk and ensuring safer evacuation procedures.

### 4.2. Best Practices Employed by School/Teachers

Based on the analysis there were five best practices that schools/teachers employed before, during, and after any form of natural disaster to ensure the safety of the learners. These basic themes are; use of learner-centered technique, Systematic, teacher involvement, regular training and drills, and the use of a proactive approach. These best practices are called multifaceted planning. Transcriptions that describe each theme are listed in Matrix 2.

**Table 3.** ***Matrix 2:*** Transcript of Participants Indicating the Best Practice they Employed

| Statements | Themes |
|---|---|
| "The use of the Sighted Guide Technique and your instructions play a crucial role in ensuring the safety and orderliness of the evacuation process. For those who can follow instructions, it's an effective approach. For those who struggle to follow instructions, your support and appreciation of their efforts are truly commendable. Moreover, providing clear verbal instructions is essential, especially for those who might not be able to follow non-verbal guidance" - Participant 1<br>"During an earthquake, we just use the "Duck, Cover, and Hold" technique. The difference here is that we use sign language to communicate with the children. Yes, we use reading and sign language" - Participant 2 | **Learner-Centered Technique** |
| "We encourage them not to panic, and if they prioritize their safety, there's no need to rush or act impulsively. If they remain composed, it can help prevent further distress. Of course, we also acknowledge their fears and anxieties. Some of the children might develop a fear of going to school after experiencing an earthquake, thinking that it might happen again. It can be quite intimidating for them, especially as they can't see their surroundings because of their visual impairment and they might be unable to understand why things are moving and shaking. So, it's important to reassure them and provide guidance on how to react during an earthquake. I would sit with my students, assuring them that they're not alone and that their feelings are entirely okay. I'd tell them that it's normal to have these feelings during such a situation, and they shouldn't be frightened. I'd also let them know that their parents would be coming to pick them up shortly because it's best to have them home during such a strong earthquake" - Participant 5 | **Utilize Proactive Approach** |
| "We have constant practice with the coordinators, and we all cooperated. For example, in the case of fire drills, it was just for practice. We didn't really have a fire here that happened. When it came to earthquake drills, we had those regularly, but not so much for fire drills. When we attended that seminar, it was all about the Bureau of Fire. Yes, it's not just switches, it's about things like outlets, making sure you tap on wires that are safe." - Participant 3<br>"For our earthquake drills, we conduct them several times within a semester. So, our students had drills too. They know what to do. They need to have drills because that is crucial. We have evacuation plans in place that ensures safety from falling debris. When we returned to classes before the pandemic, we had debriefing for the kids, particularly in June. Even when we came back after the COVID-19 pandemic, our lessons still focused on emotions from the previous earthquake incident like emojis for "sad" or "happy." That's what we prioritized" - Participant 6 | **Regular Training and Drills** |
| "We evacuate right here in the front because our building is right there. We also have the school's disaster management team or the school's DRRM (Disaster Risk Reduction and Management) committee at the school level. Yes, there's a committee with assigned teachers. There's one person assigned to each grade level, at least one coordinator. Yes, we are all involved in the school's preparedness, but it's more like a general approach to all students. What we do is evacuate immediately" - Participant 4 | **Teacher Involvement** |
| "Here, the process after an earthquake is to thoroughly check everything. There are fire safety inspectors and building inspectors who come to check the buildings, especially after an earthquake or disaster. We also have psychological debriefing. When classes were suspended for a few days after the disaster, right before we resumed classes, the first subject we had was a psychological debriefing" - Participant 5 | **Systematic** |

The effectiveness and responsiveness of disaster preparedness plans in educational settings are critical, especially when considering the distinctive requirements of learners with special educational needs (SPED). In pursuit of this understanding, the asked teachers about the responsiveness of the institution's disaster preparedness plan specifically designed for SPED learners. The insights gathered are encapsulated in Figure 2, which illustrates the organizing and basic themes that constitute the core components of a robust and responsive plan. These themes, each depicted as a petal around the central concept of 'Multifaceted Planning of Disaster Management in SPED Program,' include the Use of Learner-Centered Technique, the necessity for a Systematic approach, significant Teacher Involvement, the importance of Regular Training and Drills, and the adoption of a Proactive Approach. Each theme is critical in shaping a disaster preparedness plan that meets the specific needs of SPED learners.

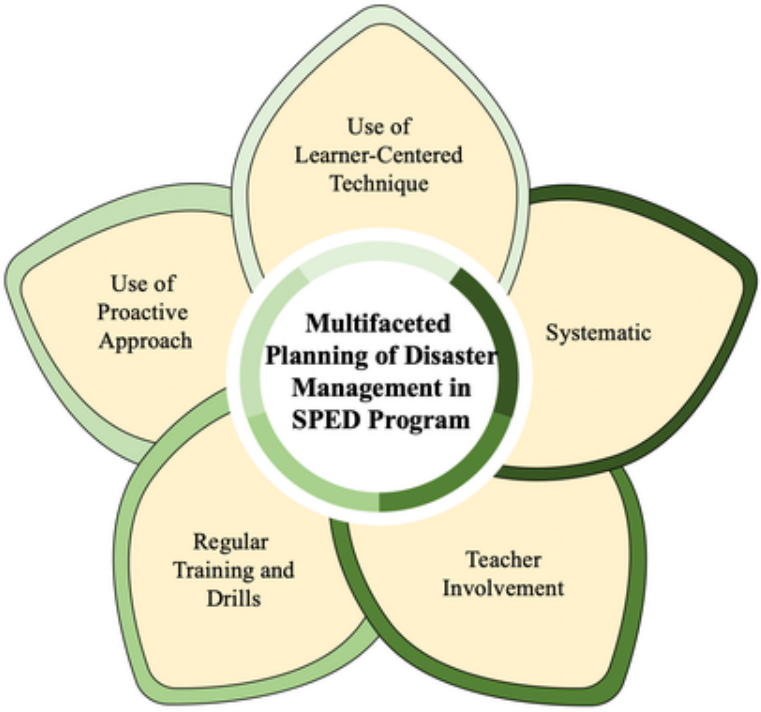


**Figure 2.** Multifaceted Planning of Disaster Preparedness Management as Depicted in SPED Program

The second findings of the study emphasized on the best practice that the school/teacher employed disaster management. The practiced that they employed can be summarized as multifaceted planning and it consists of the following practices: use of learner-centered technique, systematic, teacher involvement, regular trainings and drills, and use of proactive approach. Moreover, the emergent theme multifaceted planning of disaster management is operationally defined in this study as any approach that can be used to promote safety and welfare of SPED learners before, during, and after a disaster. This approach integrates diverse strategies, including technological advancements, educational programs, and policy development, to enhance resilience and reduce vulnerabilities in the face of disasters (Jang & Ha, 2021; Tan, 2019). In considering the unique challenges faced by different demographics, such as students with special needs, multifaceted planning ensures comprehensive and effective disaster preparedness, particularly in high-risk areas like the Philippines (Banwell *et al.*, 2016; Ronoh *et al.*, 2017). Chang *et al.* (2023) research emphasizes the importance of integrating specific strategies in disaster preparedness plans for SPED learners, highlighting the need for adaptive measures that cater to their unique educational and emotional needs.

### 4.3. Suggestions for a More Inclusive Disaster Preparedness Plan for SPED Program

The discussion on how to enhance a disaster preparedness plan that is inclusive in nature among the participants yielded remarkable insights. The participants have suggested various ways to make disaster preparedness in schools responsive to the needs of the learners. Matrix 3 shows the transcription along with the basic and organizing themes created.

**Table 4.** ***Matrix 3:*** Transcript of Participants Indicating their Suggestions to a more Inclusive Disaster Preparedness Plan

| Statements | Basic Theme | Organizing Theme |
|---|---|---|
| "In our case, for our special education (SPED) program, it's all about drills and constant practice. That's the main focus – drills and, particularly, providing information and orientation. We emphasize orienting the children and raising their awareness, especially regarding pandemics. They need to have their Go Bags ready at all times, although sometimes, in moments of panic, things can get left behind. The priority is to carry their own bodies, and even their bags are often abandoned because of that. In terms of awareness, for us in SPED, the emphasis is on our adaptability, especially in terms of feasibility" - Participant 1 | Awareness Campaign | Information Campaign |
| "Perhaps the CDRRMO (City Disaster Risk Reduction and Management Office) or our coordinator could invite experts from the fire department and other speakers to conduct training sessions on earthquake preparedness and fire safety. They could invite speakers, teachers, and principals. There was a time when even the Red Cross came to teach the children, so they were also aware and prepared. It's essential to keep updating and practicing these safety measures. It could be conducted every other week to ensure that the information will not be forgotten" - Participant 2 | Training from Experts | |
| "Earthquake drill is what we do monthly, or when there's a national drill because that is a must. We really practice it, but there are times when, that's why I say no matter how much we practice, if panic sets in, it's a different story. They shouldn't panic, but it's really hard to avoid because children can't help it, they suddenly run. No matter how much you prepare, you can't control it. Even if you practice it multiple times a day, maybe they still won't apply it. It really won't apply. It's easy to practice because the children already know it. When they hear the bell for the drill, they immediately do the "Duck, Cover, and Hold." They follow it, and after they do it, that's it. But when they actually experience an earthquake, it seems they don't really" - Participant 3 | Training how to handle emotions | |
| "It's probably practice. Yes, practice. It should be unannounced practice because you know, we can't predict natural disasters like that. So, unannounced drills and repeating what the students need to do is the right approach because wherever we go, that's how we should handle disasters. Regardless of the type of disaster especially earthquakes which are more common here, it's all the same. I think your arrival here is a wakeup call" - Participant 8 | Constant Drills | |
| "Most of the time, our CDRRMC (City Disaster Risk Reduction and Management Council) and the Bureau of Fire conduct drills here. They combine fire and earthquake drills, and we also have a CDRRM (Community Disaster Risk Reduction and Management) program in the school. We have a disaster coordinator here at the school, and it's essential for everyone to be involved. Disaster preparedness is crucial, not just for providing input, but also for applying their recommendations to our students. Included in our special education program are teachers and parents who provide input for a disaster plan" - Participant 1<br>"The teacher is the one who identifies, that's who gets dizzy, but there should be someone from the DRRMC who partners with us. The LGU should be involved, but good thing they coordinate with us. Yes, there is a coordinator for disaster plan, but I'm not a part of it." - Participant 3 | Support from Local Government Unit (LGU) | Strong Support Mechanism |
| "It's crucial that parents are involved in this process because they know their children's needs the best, especially when it comes to children with autism. Currently, we have some students with autism, and their parents are actively participating to guide us. Since we have 18 enrollees, if you give each of them an hour, it wouldn't be possible to cover them all in a single day. We have groups of six students for a morning session, another group in the afternoon, and if a student doesn't have a parent to assist them, they join the group that goes for a walk. That's why it's essential to include parents in the orientation process and inform them about the relevant individuals who assist with their children at home. They should also conduct visits and keep parents updated on any changes to the necessary safety measures" - Participant 1<br>"So, if something were to happen, the parents are there, and we work together. There are parents sitting or standing right across from us, ready to help at the gate. Some parents can calm down their children and provide support." - Participant 6 | Support from Parents | |

| | | |
|---|---|---|
| In SPED, for instance, techniques like "Duck, Cover, and Hold" are used, and there are specific sign language instructions for such situations. Thus it is necessary that SPED teachers and parents should be included in planning to make DRRM inclusive" - Participant 2<br>"I suggested to our National Disaster Risk Reduction and Management (NDRRM) team to include the SPED students in the planning. I mentioned there should be pathways for them to follow, so it's easier for them. I asked where they should go because our previous principal had that goal of creating pathways for wheelchair users. It was a small path before, and our entrance was over there" - Participant 8 | Inclusion in Planning | |
| "Improvements, on the other hand, are not something we have much experience with in regard to the other children who can't walk. But here in our case, most of the children can walk. However, we do have wheelchairs available for cases where there are children who can't walk because that's important. As for rampages, we don't have them here. Yes, we have stairs here, and when there are children who have difficulty in walking, it can be quite challenging for them to navigate the stairs." - Participant 4<br>"What I wanted is a light alarm, not a bell ring. That's because my students have hearing impairment and they cannot hear. It should be a light that turns on when an indication of an earthquake is present. And it must be automated which means it changes into color that sends them a signal to perform "Duck, Cover, and Hold." And after the shaking, it must turn off. In other SPED sections, it really depends on the disabilities. But for us in hearing impairment, it should be a light alarm. For our disaster preparedness plan, the municipality manages it, and the school also has its own people for that. In the school, it's us, the teachers" - Participant 5 | Supporting Equipment | Strong Support Mechanism |
| "In the SPED area, I think the rooms should be probably on the ground level. There should be specific pathways, railings, or similar structures. Just like here, we have railings, but it was made of wood. During our time, my primary concern was ensuring the safety of the children." - Participant 9 | Strategic Location | |

In addressing the critical question of designing an action plan that ensures inclusivity in disaster preparedness, the research has identified 'Inclusive Disaster Plan' as the emergent theme. This overarching concept is underpinned by two organizing themes: 'Strong Information Campaign' and 'Strong Support Mechanism', each of which is crucial for creating a disaster preparedness plan that accommodates all members of an educational community (Figure 3) Under the first organizing theme, basic themes emphasize the importance of a robust Awareness Campaign, comprehensive Training from Experts, focused training on Emotional Handling, and the implementation of Constant Drills to ensure readiness. Parallelly, the second organizing theme stresses the necessity of a Supportive Network involving Parents, Local Government Units (LGUs), the provision of Supporting Equipment, active Inclusion in Planning, and the consideration of Strategic Location in the plan's execution. These components, as depicted in Figure 3, collectively form the scaffold of a plan of action aimed at fostering an environment where every individual, regardless of their needs, is prepared for disasters.

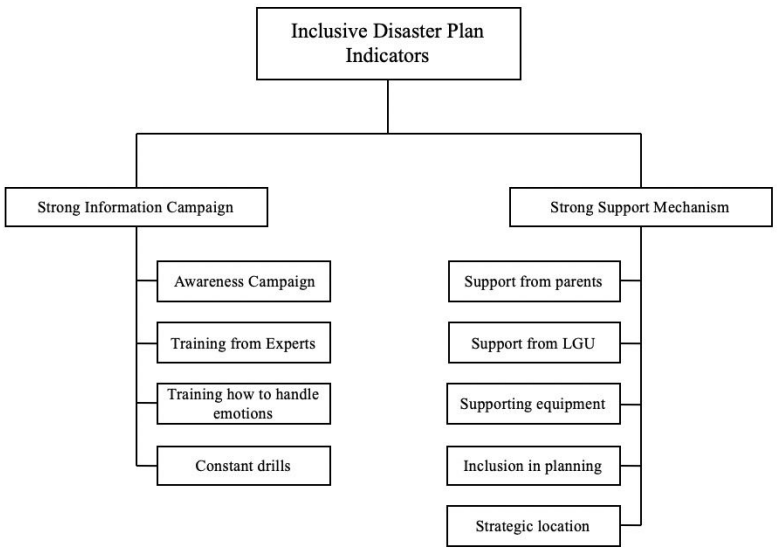


**Figure 3.** Components of an Inclusive Disaster Preparedness Plan

The third findings of the study focuses on the suggestions given by the participants to promote an inclusive disaster preparedness focusing on the inclusion of SPED learners. Based on the findings, the participants have given nine suggestions and can be summarized into two - strong information campaign and strong support mechanism. First, strong information campaign is composed of awareness campaign, training from experts, training how to handle emotions, and constant drills. The 'Strong Information Campaign' is a pivotal theme, focusing on disseminating knowledge and awareness about potential disasters and the specific actions needed for SPED learners. Jang and Ha (2021) research supports the necessity of a strong information campaign in SPED settings, focusing on the vital role of continuous education and awareness-raising activities to prepare these learners for disaster scenarios. Regular training sessions, as suggested by participants, contribute to a sustained and effective information campaign (Vlachou *et al.*, 2023). It is supported by literature that emphasizes the importance of awareness in enhancing the resilience and self-efficacy of vulnerable populations in the face of emergencies (Mariam *et al.*, 2021).

In addition the second theme which is strong support mechanism is composed of support from parents, support from Local Government Unit (LGU), supporting equipment, inclusion in planning, and strategic location. This theme emphasizes the crucial role of support in the implementation of disaster preparedness in the SPED program. Research by Chang *et al.* (2023) underscores the importance of comprehensive support systems in SPED settings for crisis management. A 'Strong Support Mechanism' further fortifies the plan, ensuring that there is a robust system in place to back the implementation of the preparedness strategies, thereby creating a network of support that is both resilient and responsive to the demands of a crisis (Villeneuve, 2021). Chang *et al.* (2023) study emphasizes the critical role of a strong support mechanism in disaster preparedness for SPED learners.

These findings highlight the crucial role of inclusive disaster preparedness to cater to the needs of vulnerable individuals in schools. Moreover, these findings address the principle of Education for Sustainable Development (ESD) as one of the core principles of the United Nations (n.d). Based on this principle, education is the key to unlocking global development by creating plans and programs that center on equipping people of all ages the necessary knowledge, skills, and values crucial in the modern society. Thus, in this study, key indicators of inclusive disaster preparedness were provided for policymakers, educators, administrators, and stakeholders to be informed on the current needs of SPED learners to be better prepared during and after any form of disaster. Therefore, the findings of this research will not only enrich the literature but also provide necessary details as to what area of DRRM in school is needed to refine to promote inclusivity.

Further, the findings of the study highlight both challenges and opportunities of inclusive disaster preparedness in the eyes of educators teaching in SPED programs. Although the scope of the study is one province in the Philippines, however, several literature also acknowledge pressing concerns regarding this topic. This literature includes Ronoh *et al.* (2017) disability-inclusive disaster risk reduction (New Zealand), Galvez *et al.* (2021) on their findings pertaining to disaster preparedness among SPED learners (Manila, Philippines), Sheehy *et al.* (2024) inclusive disaster risk reduction (Indonesia) to name a few. Therefore, the findings of the study are not isolated in the current context. However, this also goes beyond other contexts. Thus, the study offers new perspectives on how to approach disaster preparedness that is inclusive in nature through the experiences of teachers teaching in SPED program.

## 5. CONCLUSIONS

Based on the insights gathered from this research, the following conclusions have been drawn: The study reveals that SPED teachers face a complex set of challenges during disasters, which underscores significant gaps in current disaster management practices within special education environments. These challenges are different, encompassing not only physical and logistical barriers but also emotional and psychological aspects that affect both teachers and students in SPED settings. In addition, The responsiveness of disaster preparedness plans for SPED learners is found to be critical yet requires enhancement. The study indicates the necessity of a comprehensive approach that includes learner-centered techniques, systematic and strategic planning, active teacher involvement, and regular training and drills tailored to the specific needs of SPED learners. For the formulation of an inclusive disaster preparedness plan in educational settings, it is essential to integrate a robust information campaign and a strong support mechanism. This plan should incorporate training from experts, focus on emotional handling, and involve constant drills to ensure readiness. Support from various stakeholders, including parents, local government units, and the provision of appropriate equipment, is vital. Additionally, ensuring that SPED learners are included in the planning process and considering the strategic location of resources and safety zones are key components for a comprehensive disaster preparedness plan.

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