

Knowledge and Preparedness of Criminology Students on Disaster Risk Reduction and Management

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ABSTRACT

This study determined the knowledge and preparedness of criminology students regarding Disaster Risk Reduction and Management (DRRM) across the four thematic areas of disaster prevention and mitigation, disaster preparedness, disaster response, and disaster rehabilitation and recovery at Isabela State University-Jones Campus. A descriptive quantitative design was employed. Through total enumeration, 120 Bachelor of Science in Criminology students, composed of 70 third-year and 50 fourth-year students, participated in the study. Data were gathered through a 46-item adapted and modified questionnaire administered through Google Forms. Five DRRM experts validated the instrument, which obtained a content validity score of 1.00, while pilot testing with 20 students produced a

Cronbach alpha coefficient of .985. Mean and standard deviation were used in the analysis. The respondents demonstrated extensive knowledge of DRRM overall ($M = 3.26$), with the highest mean in disaster preparedness ($M = 3.37$); disaster response ($M = 3.20$) and rehabilitation and recovery ($M = 3.22$) remained at the good knowledge level. They were extremely well-prepared across all thematic areas (overall $M = 3.31$), with disaster preparedness obtaining the highest mean ($M = 3.33$). Regular simulation exercises and drills were rated as the most effective enhancement strategy ($M = 3.38$), followed by certification programs ($M = 3.36$). The findings indicate that sustained curricular integration, practical training, drills, and community participation support strong DRRM readiness, while technical competencies in incident command, medical triage, search and rescue, damage assessment, and Build Back Better require further strengthening. A competency-based three-day enhancement program was therefore proposed.

Keywords: *criminology students, disaster preparedness, disaster response, disaster risk reduction and management, higher education, incident command system*

INTRODUCTION

Disaster Risk Reduction and Management (DRRM) is a continuing national priority in the Philippines because natural and human-induced hazards can disrupt communities, damage infrastructure, and threaten lives. Republic Act No. 10121 institutionalized a proactive framework that covers disaster prevention and mitigation, disaster preparedness, disaster response, and disaster rehabilitation and recovery. It also directed education agencies to integrate disaster risk education into curricula and to encourage youth participation in DRRM activities (Republic of the Philippines, 2010). The National Disaster Risk Reduction and Management Plan likewise emphasizes coordinated action before, during, and after disasters (National Disaster Risk Reduction and Management Council, 2011).

Educational institutions are important settings for developing disaster literacy and resilience. School-based DRRM initiatives can provide students with knowledge of hazards, emergency planning, evacuation, first aid, communication procedures, and community recovery. The Department of Education (2021) underscored the

role of schools in building safe learning environments, while UNESCO and UNICEF (2012) showed that systematic integration of disaster risk reduction into curricula can strengthen awareness and preparedness. For students who may later work in public safety, the need for applied DRRM competence is especially important.

Criminology students are future law-enforcement and public-safety practitioners who may be called upon to assist in evacuation, crowd management, first aid, search and rescue, emergency communication, security, and recovery operations. Existing studies show that students often possess general awareness but have uneven mastery of technical procedures. Cabuga and Cañete (2023) found high disaster-related knowledge and preparedness among senior high school students, whereas Comighud (2020) identified continuing needs for training in basic life support, first aid, contingency planning, and the Incident Command System. Similar gaps between theoretical awareness and practical readiness have been reported among university students (Chowdhury, 2023; Parlak et al., 2021).

Although DRRM research has examined general education, secondary school, nursing, and other higher education populations, criminology students remain less frequently studied despite the direct relevance of disaster management to their future roles. Assessing their present knowledge and preparedness can identify curricular strengths, reveal technical areas that need reinforcement, and guide the design of practical training. Accordingly, this study determined the level of knowledge and preparedness of third-year and fourth-year criminology students at Isabela State University-Jones Campus across the four thematic areas of DRRM and identified strategies that could further enhance their competencies. The study also proposed a structured enhancement activity based on the findings.

Literature Review

Knowledge, Attitude, and Practice Model

The study was anchored on the Knowledge, Attitude, and Practice (KAP) Model, which is commonly used to assess what individuals know, how they perceive an issue, and how their knowledge is reflected in behavior. In disaster research, knowledge represents awareness and understanding of hazards and management processes, while practice reflects concrete preparedness actions such as maintaining emergency supplies, participating in drills, and following evacuation procedures (Al-Ziftawi et al., 2020). Dehghani et al. (2024) emphasized that KAP studies are useful for establishing baseline information and identifying areas for educational intervention.

The model was appropriate because the study described current levels of knowledge and preparedness rather than predicting future intentions. The knowledge indicators examined the students' understanding of prevention, mitigation, preparedness, response, rehabilitation, and recovery, while the preparedness indicators focused on their reported readiness to perform household-, school-, and community-based actions. This alignment allowed the findings to identify both cognitive strengths and practice-oriented gaps that could guide targeted DRRM capability-building (Skaff et al., 2024).

Disaster Prevention and Mitigation

Disaster prevention and mitigation involve actions that avoid hazards or reduce their harmful effects. Students are expected to recognize local risks, understand early warning systems, identify vulnerable areas, and support measures that lower exposure and vulnerability. Mamolo et al. (2017) reported that disaster education can develop foundational competencies among senior high school students, although knowledge may differ across specific concepts and procedures.

School and community programs can strengthen these competencies when they combine curriculum integration with contextualized activities. Brion and Bersamina (2023) found that the effectiveness of school DRRM programs was related to student awareness and participation, but program enhancement remained necessary. Baluran (2023) similarly reported high implementation of prevention and mitigation activities in schools while noting constraints involving budgets, coordinator workload, and stakeholder support.

International and local evidence therefore suggests that broad awareness alone is insufficient. Students need repeated opportunities to interpret hazard information, understand warning systems, and participate in community-based risk reduction. Technical and locally grounded learning is particularly important for criminology students, who may be expected to help communicate risks and support preventive public-safety measures during their professional practice.

Disaster Preparedness

Disaster preparedness focuses on developing plans, resources, skills, and psychological readiness before an emergency occurs. Effective preparedness education includes evacuation planning, family communication, emergency kits, drills, and familiarity with school and community procedures. Cabuga and Cañete (2023) reported high preparedness and disaster-related knowledge among Filipino senior high school students, illustrating the contribution of sustained curricular exposure.

Preparedness also improves when students experience practical and community-oriented activities. Matunhay (2022) noted the contribution of higher education programs to student disaster awareness and preparedness, while Luayon and Gutierrez (2023) found that DRRM awareness and adaptation predicted tertiary students' resilience. Epal et al. (2024) likewise observed high preparedness and related knowledge among students who understood the value of expert guidance, information sharing, and school safety measures.

Despite these positive patterns, the quality and consistency of structured training remain important. Preparedness should not be limited to knowing what to do; students should be able to organize supplies, locate evacuation areas, communicate with authorities, and translate plans into timely action. For criminology education, this requires combining classroom instruction with drills, simulations, and engagement with professional emergency responders.

Disaster Response

Disaster response includes immediate life-saving and relief actions during and immediately after an emergency. Relevant student competencies include first aid, evacuation assistance, emergency communication, search and rescue awareness, medical triage, and familiarity with incident command structures. Chowdhury (2023) found that university students may have inadequate disaster-management knowledge when they have limited training or volunteer experience.

A recurring concern is the difference between knowing general protective actions and being practically ready to perform them. Parlak et al. (2021) reported that many nursing students could identify recommended earthquake actions but still lacked emergency plans and supplies. In the Philippine context, Comighud (2020) identified specialized training needs in basic life support, first aid, contingency planning, and incident command, together with resource and communication constraints.

Simulation-based learning offers a direct response to these gaps. Kaul et al. (2022) showed the value of incident command simulation for interprofessional students, and Naser et al. (2023) concluded that disaster simulation exercises provide safe environments for repeated practice, feedback, coordination, and strategy development. These approaches are highly relevant to criminology students because organized response requires both individual competence and disciplined teamwork.

Disaster Rehabilitation and Recovery

Rehabilitation and recovery concern the restoration of services, reconstruction of affected communities, psychosocial support, damage assessment, and the development of greater resilience after a disaster. This thematic area extends student learning beyond immediate response by emphasizing long-term rebuilding and the need to reduce future vulnerability. The Sendai Framework identifies recovery as an opportunity to Build Back Better through safer and more resilient systems (United Nations Office for Disaster Risk Reduction, 2015).

Studies indicate that students may be more familiar with preparedness and response than with the technical and social dimensions of recovery. Cabuga and Cañete (2023) linked preparedness behaviors with resilience and the capacity to participate in community recovery, while Luayon and Gutierrez (2023) emphasized the role of

higher education in strengthening students adaptation and resilience. Widowati et al. (2023) likewise presented comprehensive school safety as a framework connecting preparedness, response, and recovery.

For criminology students, recovery knowledge is important because public-safety personnel may assist in damage reporting, security, relief distribution, community clean-up, psychosocial referral, and the restoration of order. Deeper understanding of damage assessment, community resilience, psychological impacts, and Build Back Better can enable graduates to contribute not only to emergency operations but also to sustainable post-disaster recovery.

Synthesis and Research Gap

The literature consistently supports the value of curricular integration, practical training, simulation, and community engagement in developing DRRM competence. It also reveals a common pattern: students may demonstrate strong general awareness while retaining gaps in technical procedures such as incident command, triage, search and rescue, damage assessment, and recovery planning. These gaps are consequential for students preparing for public-safety professions.

Most available studies have focused on general school populations, health-related programs, or institutional DRRM implementation. The present study addressed the limited evidence concerning criminology students by assessing both knowledge and preparedness across all four thematic areas and by identifying concrete enhancement strategies. Its focus on future law-enforcement and public-safety practitioners provides a practical basis for strengthening criminology curricula and inter-agency training.

Conceptual Framework

The conceptual framework followed an input-process-output structure with a feedback mechanism. The input consisted of the existing knowledge and preparedness of criminology students on DRRM. The process involved assessing these levels across disaster prevention and mitigation, disaster preparedness, disaster response, and disaster rehabilitation and recovery.

The output was a proposed activity intended to enhance the students knowledge and preparedness. Feedback connected the proposed intervention to continuing assessment, indicating that capability-building should be reviewed and improved according to observed strengths, remaining gaps, and the effectiveness of subsequent training.

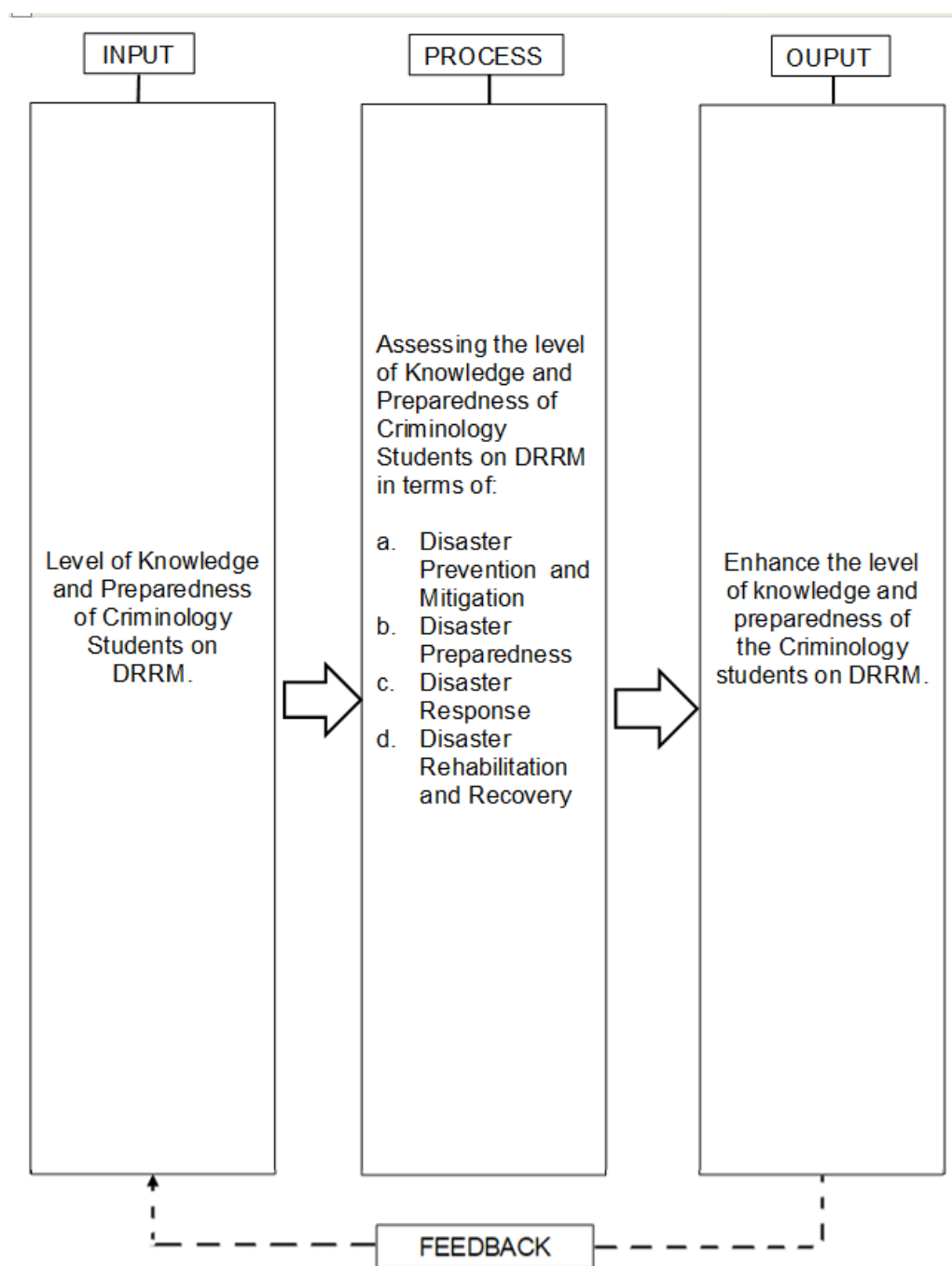


Figure 1. *Paradigm of the study*

METHODS

Research Design

The study employed a descriptive quantitative research design to determine the existing knowledge and preparedness of criminology students regarding the four thematic areas of DRRM. The design was appropriate because it enabled the systematic organization, analysis, and interpretation of the respondents reported levels at the time of data collection.

Research Locale

The study was conducted in the Criminal Justice Education Department of Isabela State University-Jones Campus, located in Barangay 01, Jones, Isabela, Philippines.

Participants and Sampling Technique

The participants were 120 Bachelor of Science in Criminology students enrolled during the conduct of the study. They consisted of 70 third-year and 50 fourth-year students. Total enumeration was used; therefore, all members of the identified population were included as respondents.

Research Instrument

Data were gathered primarily through an adapted and modified questionnaire administered through Google Forms. The instrument drew from questionnaires used in prior studies on student disaster knowledge and preparedness and contained 46 items organized into three parts. The first part measured knowledge across the four thematic areas, the second measured preparedness across the same areas, and the third assessed proposed strategies for enhancement. A four-point Likert scale was used.

Five DRRM experts evaluated the instrument for content validity. All items were rated as necessary, relevant, and clear, producing a content validity score of 1.00. The questionnaire was pilot-tested with 20 respondents, and the overall Cronbach alpha coefficient was .985, interpreted in the thesis as excellent reliability. Brief key-informant interviews were also conducted to clarify issues and support questionnaire development; they were not treated as a separate qualitative results strand.

Data Gathering Procedure

Before data collection, the researcher conducted validation and pilot testing and secured permission from the Campus Administrator through the Dean of the College of Criminal Justice Education. After approval, the objectives, significance, voluntary nature, and confidentiality provisions of the study were explained to the respondents. The Google Forms link was distributed to the third-year and fourth-year students, and response completion was monitored through coordination with the criminology student leadership. The completed responses were then encoded, tabulated, analyzed, and interpreted.

Data Analysis

Google Sheets and Microsoft Excel were used to organize and tabulate the data. Mean was used to describe the level of knowledge, preparedness, and perceived effectiveness of proposed strategies. Standard deviation was identified in the thesis as the measure of response consistency. The interpretation of mean scores followed the four-point scale shown in Table 1.

Table 1. *Four-point Likert scale and descriptive interpretation*

Scale	Mean Range	Response	Interpretation
4	3.25-4.00	Strongly Agree	Extensive Knowledge / Extremely Well-Prepared / Very Effective
3	2.50-3.24	Agree	Good Knowledge / Well-Prepared / Effective
2	1.75-2.49	Neutral	Moderate Knowledge / Moderately Prepared / Moderately Effective
1	1.00-1.74	Disagree	No Knowledge / Not Prepared / Not Effective

Ethical Consideration

The researcher obtained informed consent before participation and explained the purpose of the study in clear terms. Participation was voluntary, and respondents were assured that their information and answers would remain confidential and would not be personally traceable. Honesty, respect for participants, and accurate reporting of the findings were maintained throughout the research process.

RESULTS AND DISCUSSION

Knowledge of Criminology Students on DRRM

The respondents demonstrated extensive knowledge of DRRM overall ($M = 3.26$). Disaster preparedness obtained the highest category mean ($M = 3.37$), followed by disaster prevention and mitigation ($M = 3.26$). Disaster rehabilitation and recovery ($M = 3.22$) and disaster response ($M = 3.20$) were interpreted as good knowledge. The pattern indicates a strong conceptual foundation but comparatively lower mastery of technical response and recovery processes.

Table 2. Knowledge in disaster prevention and mitigation

Indicators	M	Interpretation
Difference between disaster prevention and mitigation	3.33	Extensive Knowledge
Methods to prevent disasters	3.23	Good Knowledge
Early warning systems and their importance	3.16	Good Knowledge
Community education programs in mitigation	3.35	Extensive Knowledge
Early warning systems in reducing impact severity	3.23	Good Knowledge
Category Mean	3.26	Extensive Knowledge

In prevention and mitigation, the students were strongest in understanding the contribution of community education programs ($M = 3.35$) and the distinction between prevention and mitigation ($M = 3.33$). Their lower ratings for early warning systems suggest that broad awareness was stronger than technical understanding. This resembles findings that school programs can raise awareness while still requiring stronger implementation and localized technical training (Baluran, 2023; Brion & Bersamina, 2023).

Table 3. Knowledge in disaster preparedness

Indicators	M	Interpretation
Importance of community emergency planning	3.43	Extensive Knowledge
Contents of an emergency kit	3.38	Extensive Knowledge
Importance of evacuation plans and procedures	3.40	Extensive Knowledge
Family emergency communication plan	3.28	Extensive Knowledge
Role of drills and exercises	3.38	Extensive Knowledge
Category Mean	3.37	Extensive Knowledge

Disaster preparedness was the strongest knowledge domain. Community emergency planning ($M = 3.43$), evacuation procedures ($M = 3.40$), emergency kits ($M = 3.38$), and drills ($M = 3.38$) all received extensive knowledge ratings. The result supports evidence that sustained curriculum integration and preparedness education can develop strong foundational competence (Cabuga & Cañete, 2023; Department of Education, 2021).

Table 4. Knowledge in disaster response

Indicators	M	Interpretation
Priorities during immediate disaster response	3.29	Extensive Knowledge
Operation of the Incident Command System	3.13	Good Knowledge
Sequence of disaster response operations	3.21	Good Knowledge
Principles of search and rescue	3.18	Good Knowledge
Medical triage during disasters	3.17	Good Knowledge
Category Mean	3.20	Good Knowledge

The respondents understood immediate response priorities ($M = 3.29$), but knowledge of the Incident Command System ($M = 3.13$), medical triage ($M = 3.17$), search and rescue ($M = 3.18$), and response sequencing ($M = 3.21$) remained at the good level. These are specialized competencies that normally require structured practice and simulation. Studies on disaster response similarly emphasize the value of incident command training and realistic exercises (Kaul et al., 2022; Naser et al., 2023).

Table 5. *Knowledge in disaster rehabilitation and recovery*

Indicators	M	Interpretation
Difference between rehabilitation and recovery	3.32	Extensive Knowledge
Build Back Better principle	3.16	Good Knowledge
Importance of damage assessment	3.21	Good Knowledge
Psychological impacts of disasters	3.21	Good Knowledge
Role of community resilience	3.23	Good Knowledge
Category Mean	3.22	Good Knowledge

Knowledge of rehabilitation and recovery was also good. Students distinguished rehabilitation from recovery ($M = 3.32$), but their understanding of Build Back Better ($M = 3.16$), damage assessment ($M = 3.21$), psychological impacts ($M = 3.21$), and community resilience ($M = 3.23$) was comparatively lower. The result shows the need to provide greater attention to long-term recovery, psychosocial concerns, and resilient reconstruction, consistent with the recovery priorities of the Sendai Framework (United Nations Office for Disaster Risk Reduction, 2015).

Table 6. *Summary of the level of knowledge of criminology students*

Category	M	Interpretation
Disaster Prevention and Mitigation	3.26	Extensive Knowledge
Disaster Preparedness	3.37	Extensive Knowledge
Disaster Response	3.20	Good Knowledge
Disaster Rehabilitation and Recovery	3.22	Good Knowledge
Overall Mean	3.26	Extensive Knowledge

Preparedness of Criminology Students on DRRM

The respondents were extremely well-prepared across all four thematic areas, with an overall mean of 3.31. Disaster preparedness obtained the highest category mean ($M = 3.33$), followed by disaster response and disaster rehabilitation and recovery (both $M = 3.31$) and disaster prevention and mitigation ($M = 3.30$). The consistency of these ratings indicates that the students reported practical readiness at the household, school, and community levels.

Table 7. *Preparedness in disaster prevention and mitigation*

Indicators	M	Interpretation
Knowledge of common local disaster risks	3.33	Extremely Well-Prepared
Awareness of local hazard vulnerability assessment	3.23	Well-Prepared
Household ability to shut off utilities	3.35	Extremely Well-Prepared
Encouraging family and friends to adopt DRR practices	3.25	Extremely Well-Prepared
Participation in community mitigation activities	3.33	Extremely Well-Prepared
Category Mean	3.30	Extremely Well-Prepared

The students reported strong readiness to identify local risks, shut off utilities, participate in mitigation activities, and encourage risk-reduction practices. Awareness of the local hazard vulnerability assessment was the only indicator interpreted as well-prepared ($M = 3.23$), suggesting that access to localized hazard data could be improved. Community participation is an important foundation of resilience because it develops shared responsibility and social support (Aldrich & Meyer, 2019).

Table 8. *Preparedness in disaster preparedness*

Indicators	M	Interpretation
Knowledge of shelters and evacuation assembly points	3.32	Extremely Well-Prepared
Availability of emergency contact numbers	3.33	Extremely Well-Prepared
Household 72-hour emergency supply kit	3.38	Extremely Well-Prepared
Documented family disaster plan	3.31	Extremely Well-Prepared
Understanding of emergency procedures at home or school	3.33	Extremely Well-Prepared
Category Mean	3.33	Extremely Well-Prepared

Preparedness was highest in the pre-disaster planning domain. The household 72-hour emergency kit obtained the highest mean ($M = 3.38$), while evacuation locations, emergency contacts, family plans, and home or school procedures were all rated extremely well-prepared. These results indicate that students had translated knowledge into concrete household arrangements, a pattern also associated with higher student resilience in higher education settings (Luayon & Gutierrez, 2023).

Table 9. *Preparedness in disaster response*

Indicators	M	Interpretation
Providing basic first aid during emergencies	3.31	Extremely Well-Prepared
Using mobile phones and social media for communication	3.29	Extremely Well-Prepared
Assisting others in safe evacuation	3.37	Extremely Well-Prepared
Following instructions from authorities and responders	3.25	Extremely Well-Prepared
Assisting in search and rescue operations	3.31	Extremely Well-Prepared
Category Mean	3.31	Extremely Well-Prepared

The respondents were particularly ready to assist others in evacuation ($M = 3.37$) and reported strong readiness in first aid, communication, compliance with authorities, and search and rescue assistance. Their reported confidence is encouraging for future public-safety work; however, the lower knowledge ratings in incident command, triage, and search and rescue indicate that confidence should be reinforced by competency-based assessment and simulation. Aljahany et al. (2024) similarly emphasized the benefits of disaster simulation for developing student readiness.

Table 10. *Preparedness in disaster rehabilitation and recovery*

Indicators	M	Interpretation
Reporting damage to property and infrastructure	3.28	Extremely Well-Prepared
Providing emotional support to affected peers	3.30	Extremely Well-Prepared
Joining community clean-up and restoration	3.36	Extremely Well-Prepared
Volunteering in relief operations and donation drives	3.26	Extremely Well-Prepared
Advocating better preparedness in school/community	3.33	Extremely Well-Prepared
Category Mean	3.31	Extremely Well-Prepared

Students also reported strong willingness to participate in clean-up and restoration ($M = 3.36$), advocate preparedness ($M = 3.33$), provide emotional support, report damage, and join relief activities. These behaviors demonstrate a community-oriented view of recovery. Higher education DRRM programs can strengthen this orientation by linking technical recovery concepts with actual community engagement (Luayon & Gutierrez, 2023; Widowati et al., 2023).

Table 11. *Summary of the level of preparedness of criminology students*

Category	M	Interpretation
Disaster Prevention and Mitigation	3.30	Extremely Well-Prepared
Disaster Preparedness	3.33	Extremely Well-Prepared
Disaster Response	3.31	Extremely Well-Prepared
Disaster Rehabilitation and Recovery	3.31	Extremely Well-Prepared
Overall Mean	3.31	Extremely Well-Prepared

The high preparedness ratings were attributed in the thesis to the integration of DRRM in the curriculum, recurring training conducted by the Bureau of Fire Protection, participation in drills, and community engagement. The findings affirm the value of combining formal instruction with experiential learning. Nevertheless, preparedness ratings were self-reported; therefore, continued practical assessment is necessary to confirm performance under realistic emergency conditions.

Strategies to Enhance Knowledge and Preparedness

Table 12. *Proposed strategies to enhance DRRM knowledge and preparedness*

Proposed Strategy	M	Interpretation
Conduct regular disaster simulation exercises and drills in school	3.38	Very Effective
Invite disaster management experts as guest speakers	3.22	Effective
Provide hands-on training with emergency equipment	3.32	Very Effective
Establish partnerships with local emergency services	3.29	Very Effective
Encourage participation in community preparedness programs	3.32	Very Effective
Provide certification programs in disaster management	3.36	Very Effective

Regular simulation exercises and drills were rated highest ($M = 3.38$), followed by disaster-management certification programs ($M = 3.36$). Hands-on equipment training and participation in community programs both obtained $M = 3.32$, while partnerships with local emergency services obtained $M = 3.29$. Inviting experts was still considered effective ($M = 3.22$). These preferences directly address the identified technical gaps. Simulation permits repeated practice, immediate feedback, and coordinated decision-making, while formal certification and agency partnerships can establish clear competency standards (Bañez et al., 2022; Naser et al., 2023).

Based on the findings, the thesis proposed a three-day competency-based DRRM enhancement program combining seminar-workshops, practical demonstrations, simulation exercises, and an integrated dry run. The program focused on the Incident Command System, medical triage and first aid, search and rescue, damage assessment, disaster rehabilitation and recovery, Build Back Better, and community-based preparedness.

Table 13. *Condensed DRRM enhancement program proposed in the study*

Component	Core Content and Activities
Day 1: Seminar-workshop	Four DRRM thematic areas; Incident Command System; medical triage and first aid; search and rescue fundamentals; damage assessment; rehabilitation, recovery, and Build Back Better; community-based preparedness.
Day 2: Practical demonstration and simulation	Earthquake and fire drills; triage and first-aid demonstration; search and rescue simulation; team coordination and emergency response exercise; debriefing and evaluation.
Day 3: Integrated dry run	Full earthquake and fire scenario; triage and first-aid response; search and rescue; integrated team response; final evaluation and feedback.
Implementation details	Target: third-year and fourth-year criminology students at ISU-Jones Campus; proposed schedule: August 10-12, 2026; indicative budget: PHP 34,000; recommended partners: BFP, PNP, MDRRMO, medical and other emergency response agencies.
Success and sustainability indicators	At least 80% improvement in scores, correct demonstration of procedures, at least 90% attendance and engagement, positive participant feedback, annual implementation, continuing agency partnerships, and follow-up advanced simulations.

The proposed program is a practical contribution of the study because it translates the descriptive findings into a structured intervention. Its seminar, simulation, and dry-run sequence is designed to move students from conceptual understanding to coordinated performance. Continued implementation and post-training assessment would allow the university to determine whether the identified knowledge gaps are reduced and whether the high self-reported preparedness is demonstrated in practice.

CONCLUSION

The criminology students possessed extensive knowledge of DRRM overall and were extremely well-prepared across disaster prevention and mitigation, preparedness, response, and rehabilitation and recovery. Their strongest knowledge and preparedness were in disaster preparedness, particularly emergency planning, evacuation, emergency kits, drills, and household procedures. These findings show that sustained curricular exposure, professional training, drills, and community participation have contributed to strong foundational competence and practical readiness.

The study also identified areas that require deeper development. Knowledge of the Incident Command System, medical triage, search and rescue, response sequencing, Build Back Better, damage assessment, psychological impacts, and community resilience remained comparatively lower. The strong endorsement of simulations, certification, equipment-based training, community participation, and agency partnerships indicates that future improvement should emphasize competency-based and experiential learning. The proposed three-day enhancement program provides a direct institutional response to these needs and strengthens the contribution of criminology education to community safety and disaster resilience.

Recommendation

Isabela State University-Jones Campus should sustain the current integration of DRRM in the criminology curriculum while giving greater emphasis to technical response and recovery competencies. Case-based lessons, laboratory activities, and scenario analysis should specifically address incident command, triage, search and rescue, damage assessment, psychosocial support, community resilience, and Build Back Better.

The College of Criminal Justice Education should institutionalize regular drills, full-scale simulations, and hands-on training with emergency equipment. The proposed three-day enhancement program may be adopted and refined through collaboration with the Bureau of Fire Protection, Philippine National Police, Municipal Disaster Risk Reduction and Management Office, medical services, and other qualified emergency agencies. Certification pathways should also be explored to provide students with recognized evidence of competence.

Preparedness should be assessed not only through self-report measures but also through performance-based evaluation, observation checklists, pretest-posttest comparisons, and after-action reviews. Annual implementation, continuing inter-agency partnerships, and follow-up advanced simulations can help sustain student readiness and ensure that training remains responsive to local hazards and operational standards.

Future researchers may conduct similar studies in other criminology programs and geographical contexts, compare year levels or institutional types, and examine whether knowledge and preparedness differ according to prior training, disaster experience, or demographic characteristics. Experimental or longitudinal studies may also evaluate the actual effectiveness of the proposed enhancement program and determine whether improved knowledge is translated into competent disaster-response performance.

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