



Evaluating the Effectiveness of Mitigating Actions in Risk Management: An Assessment of Interventions and Outcomes in St. Paul University Philippines

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Abstract

Educational institutions such as St. Paul University Philippines (SPUP) must proactively manage risks stemming from natural disasters, public health crises, and institutional challenges. This study assessed the effectiveness of risk management interventions implemented at SPUP, particularly within the School of Nursing and Allied Health Sciences, in addressing academic quality risks and sustaining institutional resilience. A qualitative research design was employed through document analysis of official university reports, selected using predefined criteria identifying specific risks, root causes, interventions, and outcomes. Thematic analysis revealed that key academic risks—such as low licensure examination performance in Medical Technology, Physical Therapy, Radiologic Technology, and Pharmacy—stemmed from insufficient foundational knowledge, ineffective pedagogy, high faculty turnover, and inconsistent student participation in review programs. Interventions included curriculum realignment, pedagogical innovations, faculty training, structured board exam reviews, and enhanced laboratory infrastructure. Results demonstrated significant improvements in licensure outcomes, especially in Radiologic Technology, which attained Top 5 national recognition. Gains were also observed in faculty recruitment and student engagement through the use of AI-enabled tools and the appointment of Review Coordinators. These findings underscore the value of structured, data-informed interventions in mitigating educational risks and enhancing institutional resilience. Continuous evaluation and strategic adaptation remain critical in sustaining these positive outcomes.

Keywords: *Risk Management; Educational Resilience; Licensure Performance; Faculty Development; Higher Education*

Introduction

St. Paul University Philippines (SPUP) has increasingly recognized the importance of risk management interventions in promoting educational resilience and safeguarding its institutional integrity.

The effectiveness of these interventions warrants thorough assessment, especially in the context of emerging challenges such as climate change, pandemics, and socio-political dynamics, which have significant implications for educational institutions. This research aims to evaluate the risk management interventions implemented at SPUP, analyze their outcomes, and derive strategic implications for future efforts within similar educational settings.

The effective management of risk within educational institutions is essential not only for protecting physical and human assets but also for fostering an environment conducive to learning. As highlighted by Rözer et al. (2023), effective disaster risk reduction interventions at the community level can yield multiple resilience dividends, which may be relevant to the university setting. By employing a systematic approach to risk management, SPUP has adopted interventions aimed at enhancing institutional resilience against various risks, including natural disasters, public health crises, and socio-economic instability.

The variety of risk management strategies at SPUP encompasses preparedness, mitigation, response, and recovery. This aligns with the concept of resilience, which pertains to the capacity of individuals and institutions to adapt and recover from disruptions (Hechanova et al., 2015). For instance, SPUP's implementation of emergency response drills and training programs for faculty and students exemplifies its proactive approach toward fostering a culture of preparedness. Such initiatives not only enhance institutional knowledge of risk response mechanisms but also improve individual confidence in managing potential crises.

Furthermore, an integral component of risk management at SPUP is the focus on health-related interventions. In the context of HIV risk and prevention among vulnerable populations, Restar et al. (2018) underscore the relevance of tailored health interventions which resonate with the initiatives at SPUP aimed at promoting health awareness and education. The university has engaged in programs that educate students on health risks and preventative measures, reflecting a broader commitment to enhancing community health resilience. These programs are vital in addressing health-related challenges that may affect student well-being and educational outcomes, thereby reinforcing the university's mission to provide a safe and nurturing environment for learning.

Evaluating the outcomes of these interventions necessitates a comprehensive assessment framework. The evaluation process can incorporate both quantitative and qualitative measures, resembling the methodologies employed in public health research. For example, Urada et al. (2016) exemplify the evaluation of intervention effects using quantitative pilot studies, which can serve as a methodological reference for assessing the effectiveness of SPUP's risk management strategies. Collectively, these assessments can identify strengths, weaknesses, and areas for improvement, enabling the university to refine its risk management interventions.

Moreover, the analysis of risk interventions must consider their implications for future strategies in educational institutions. Insights from successful interventions at SPUP can inform broader educational practices. For instance, the utilization of geographic information systems (GIS) for flood risk assessments, as demonstrated by Cabrera and Lee (2020), has significant relevance for SPUP considering its geographical context. By integrating such technology into its risk management processes, the university can improve its predictive capabilities regarding environmental risks, thereby enhancing planning and resource allocation.

Adopting a proactive stance not only helps manage current risks but also prepares institutions for unforeseen challenges. Studies have shown that educational institutions with robust risk management frameworks are better equipped to handle crises, leading to improved student retention and success (Xu et al., 2020). Implementing and continuously updating risk management strategies, therefore, stands as a critical endeavor for SPUP amidst the evolving landscape of educational challenges.

In addition to resilience in the face of crises, the acceptability and effectiveness of interventions are critical for sustaining engagement and participation among the university community. As explored by Fonner et al. (2014), the variable acceptance of school-based programs reveals an inherent challenge in program implementation. Similarly, at SPUP, fostering a positive perception of risk management initiatives through consistent communication and involvement will be essential for long-term success. Understanding the perspectives of students and faculty regarding intervention acceptability can enhance the design and execution of future risk management strategies.

The comprehensive nature of risk management interventions encompasses not only immediate concerns but also long-term educational outcomes. For instance, the UNESCO guidelines for assessing learning facilities in the context of disaster risk reduction highlight the importance of integrating disaster resilience into facility design (Torres et al., 2019). SPUP can leverage these guidelines to evaluate and improve its physical learning environments, ensuring they are resilient and conducive to learning amidst potential hazards.

Given the dynamic nature of risks faced by educational institutions, continuous research into effective risk management practices is indispensable. By engaging in systematic evaluations similar to the approaches detailed by Pitpitan et al. (2017), SPUP can refine its interventions and better align them with the needs of its diverse student population. This iterative process of assessment and adjustment will aid in cultivating a culture of risk awareness and resilience throughout the university community.

Hence, the assessment of risk management interventions at St. Paul University Philippines highlights crucial outcomes and implications for future strategies in educational institutions. As demonstrated, effective risk management is multifaceted, involving preparedness, health education, and community engagement. The potential for improved institutional resilience through tailored interventions is significant, with ramifications for not only SPUP but also for educational institutions across similar contexts. Future strategies must prioritize ongoing evaluation and adaptation of risk management practices, ensuring educational environments remain safe, supportive, and conducive to learning. By addressing contemporary challenges head-on, SPUP can serve as a model for resilience in educational institutions, advocating for a proactive approach to risk management that ultimately safeguards student welfare and institutional integrity.

Statement of the Problem

This study aimed to assess the effectiveness of the mitigating actions/action plans or interventions implemented in St. Paul University Philippines to address identified risks in the School of Health Sciences and Allied Health Sciences.

Specifically, it sought answers to the following:

- 1) What is/are the risk/s identified that needs to be addressed by the department or unit?
- 2) What are the identified root causes of the identified risk or problem?
- 3) What intervention was implemented to address the identified risk or problem?
- 4) What are the observable changes or developments to address the risk or problem after the implementation of the intervention?

Methods

Research Design

This study employed a qualitative research design utilizing *document analysis* to assess the effectiveness of risk management interventions implemented at St. Paul University Philippines (SPUP). Document analysis is an established method in qualitative research that involves systematically reviewing and interpreting written materials to extract relevant insights, themes, and patterns (Bowen, 2009). This approach is particularly suited to evaluating institutional interventions as it allows for an in-depth examination of official reports, policy documents, and records that document the university's risk management strategies and their outcomes.

Data Collection

The primary data source for this study consists of written reports and official documents provided by various departments and units within SPUP. These reports detail the *identified risks, root causes, implemented interventions, and observable outcomes* following the interventions. The documents were gathered from key university offices where the identified risks/problems reside or are identified.

To ensure the credibility and comprehensiveness of the data, reports were selected based on the following criteria:

1. The document explicitly identifies a *risk or issue* faced by the university.
2. The document outlines the *root causes* of the risk.
3. The document describes the *intervention(s) implemented* to mitigate the risk.
4. The document provides *evidence of observable changes* or outcomes following the intervention.

Only reports that met all four criteria were included in the analysis to maintain consistency in data interpretation.

Data Analysis

The study employed *thematic analysis* to examine the collected documents. Thematic analysis is a widely used qualitative approach that involves identifying, analyzing, and reporting patterns (themes) within data (Braun & Clarke, 2006). The analysis followed these steps:

1. *Familiarization with Data* – All documents were carefully read and reviewed multiple times to gain an overall understanding of the interventions and their reported outcomes.
2. *Coding* – Recurring concepts, key phrases, and critical points were systematically coded using an open coding approach. Codes were assigned to sections that referred to risks, root causes, interventions, and observable changes.
3. *Theme Identification* – The codes were grouped into broader *themes* that reflect commonalities across different reports. Themes were categorized under:
 - Identified Risks
 - Root Causes

- Implemented Interventions
- Observable Outcomes

4. *Interpretation and Synthesis* – The identified themes were analyzed in relation to existing literature on risk management in educational institutions. Key findings were synthesized to evaluate the overall effectiveness of the interventions.

Ethical Considerations

Since this study relied solely on official university documents and reports, no direct human participants were involved. However, ethical considerations were still observed to ensure responsible handling of institutional data. The following measures were implemented:

- *Confidentiality* – Sensitive information, including names of personnel and confidential strategic plans, was anonymized to maintain privacy.
- *Informed Consent* – The university administration granted permission to access and analyze official reports.
- *Data Integrity* – Documents were analyzed in their original form without modifications to maintain authenticity and prevent misrepresentation.

By employing a rigorous *document analysis methodology*, this study ensures an evidence-based assessment of risk management interventions at SPUP. The findings derived from this analysis will contribute to refining institutional strategies for mitigating risks and enhancing organizational resilience.

Results and Discussions

Case Study 1

Risk Owner: School of Nursing and Allied Health Sciences

Identified Risks and Root Causes

The primary risk identified in this study is the sustainability of standards in Allied Health Professions Education at St. Paul University Philippines (SPUP), which is significantly affected by low performance in the licensure examinations for Medical Technology (MT), Physical Therapy (PT), Radiologic Technology (RT), and Pharmacy (Pharma). Several root causes were identified, including inadequate foundational knowledge among students, ineffective teaching-learning strategies, high faculty turnover, and insufficient monitoring and guidance of reviewees.

A major concern was the lack of effective study and test-taking skills among students, coupled with an absence of rigorous analytical and synthesis skills. The teaching methodologies were primarily lecture-based and online, which may have hindered student engagement and critical thinking development. Additionally, the high turnover of seasoned faculty left gaps in instruction, as part-time and newly hired faculty struggled to sustain mentoring initiatives. Examinees' irregular attendance in review classes and the absence of designated faculty to oversee their review progress further compounded the problem.

Interventions Implemented

To address these challenges, SPUP implemented a multi-faceted intervention strategy aimed at enhancing curriculum design, faculty development, student engagement, and structured review programs. The key interventions included:

1. *Enhancement of Teaching Guides* – The content was revised to align with Commission on Higher Education Memorandum Orders (CMOs) and licensure examination requirements, ensuring that students were adequately prepared for board examinations. Teaching-learning strategies were also enriched to incorporate active student engagement, critical thinking, and clinical reasoning skills, alongside the integration of AI-driven learning tools.
2. *Optimization of Skills Laboratory* – Recognizing the need for hands-on learning, additional equipment and supplies were requested to facilitate competency-based training. This intervention was critical in improving students' practical knowledge, ensuring they met professional standards.
3. *Faculty Training and Development* – Faculty attended seminars on teaching strategies, technology integration, test construction, and Table of Specifications (TOS). Additionally, Dr. Lawes from Lecturio conducted a specialized seminar on clinical reasoning for both students and faculty, aiming to strengthen analytical skills crucial for licensure examinations.
4. *Hiring of Qualified Full-Time Faculty* – To address faculty turnover, recommendations were made to increase the number of full-time faculty members across the four programs. This provided greater stability in faculty mentorship and instructional quality.
5. *Designation of a Review Coordinator per Program* – Each program appointed a Review Coordinator responsible for monitoring and guiding students through their licensure examination preparation.
6. *Implementation of an Enhanced Integrating Course (Review Program)* – A structured board exam review was introduced, incorporating:
 - *Pre- and post-tests* to gauge learning progress.
 - *Pre-board and comprehensive exams* after every review subject.
 - *Mock board examinations* at the end of the intensive review phase.
 - *Inviting topnotchers and expert lecturers from schools and review centers* to deliver specialized sessions.
7. *Adoption of Board Exam-Type Assessments* – To familiarize students with the actual licensure examination format, term exams in professional courses were redesigned using Multiple Choice Questions (MCQs) and case/scenario-based questions. Rationalization sessions were conducted to review and explain exam answers, reinforcing retention and conceptual understanding.
8. *Student Recruitment Campaigns* – A strategy was developed to attract high-merit students through promotional blogs and alumni engagement in recruitment campaigns.

Outcomes and Observable Changes

Following the implementation of these interventions, *significant improvements were observed* in licensure examination results across the four programs, as well as in faculty composition and student learning engagement.

1.Improvement in Licensure Examination Performance

- Medical Technology (MT): Increased from 50% (March 2023) to 69.77% (August 2024).
- Physical Therapy (PT): Drastic improvement from 16.67% (June 2024) to 50% (December 2024).
- Radiologic Technology (RT):
 - School Passing Rate: 88.46%
 - Batch Passing Rate: 94.74%
 - Recognized as a Top 5 Performing School in the Philippines (December 2024).
- Pharmacy (Pharma): Increased from 60% (April 2024) to 94.74% (November 2024).

These results indicate that the curriculum enhancements, structured review programs, and intensified faculty support *positively influenced student preparedness and licensure performance*.

2.Increase in Full-Time Faculty

- Medical Technology (MT): Increased from 10 to 12 faculty members.
- Physical Therapy (PT): Maintained 1 faculty member (highlighting the need for further recruitment efforts).
- Radiologic Technology (RT): Increased from 3 to 5 faculty members.
- Pharmacy (Pharma): Increased from 5 to 10 faculty members.

This expansion in faculty strengthened instructional continuity and improved student mentoring.

3.Strengthened Review Monitoring and Student Engagement

- The appointment of Review Coordinators provided better oversight of students' progress, attendance, and exam readiness.
- The adoption of mock board exams, structured test reviews, and rationalization strategies reinforced critical thinking and retention of key concepts.
- The use of AI-enhanced learning tools encouraged interactive and adaptive learning approaches.

4.Improvement in Laboratory Resources

- The acquisition of new equipment and models for the skills laboratory enhanced hands-on training, ensuring that students developed essential practical competencies before taking their licensure exams.

Discussion and Implications

The findings underscore the importance of a holistic and structured approach to risk management in educational quality assurance. The interventions successfully mitigated key challenges, such as poor examination performance, lack of faculty stability, and ineffective student engagement strategies. The observed improvements in licensure examination results and faculty composition validate the effectiveness of these measures.

These findings align with Rözer et al. (2023), who emphasized that risk mitigation in education must involve a combination of structural, pedagogical, and engagement-based strategies to yield resilience dividends. Similarly, Hechanova et al. (2015) highlighted the necessity of faculty development and student-centered learning approaches in fostering higher academic success rates.

However, further efforts are needed to sustain and enhance these gains, particularly in:

1. **Strengthening Physical Therapy Faculty Capacity** – The number of full-time faculty remains critically low, which could impact long-term program stability.
2. **Enhancing Student Commitment to Review Sessions** – Despite structured interventions, student irregular attendance in review classes remains a concern. Additional measures such as review incentives or attendance monitoring systems should be explored.
3. **Continuous Curriculum Review and AI Integration** – The integration of AI in teaching strategies showed promising results and should be expanded across more courses to further enhance student learning engagement.

By maintaining a proactive approach to educational risk management, SPUP can continue to build on these successes and serve as a model for other institutions seeking to enhance licensure performance and academic resilience.

Conclusion

The findings of this study underscore the critical role of structured risk management interventions in ensuring the sustainability of quality Allied Health Professions Education at St. Paul University Philippines (SPUP). By addressing key issues such as low licensure examination performance, inadequate faculty retention, ineffective teaching strategies, and insufficient student preparedness, the university has demonstrated a proactive approach in mitigating educational risks.

The implementation of curriculum enhancements, faculty development initiatives, structured board exam review programs, and expanded laboratory resources has yielded tangible improvements in student outcomes. Notably, licensure examination performance across Medical Technology, Physical Therapy, Radiologic Technology, and Pharmacy programs has shown a marked increase, with Radiologic Technology achieving national recognition as a Top 5 Performing School. Additionally, the increase in full-time faculty across most programs has contributed to greater instructional continuity and student mentorship.

Despite these gains, sustaining and further improving these interventions remains imperative. While the appointment of Review Coordinators and enhanced board exam review programs have improved student engagement, challenges such as irregular attendance in review sessions and limited faculty capacity in certain programs persist. The findings reinforce the need for a long-term, data-driven approach to continuous academic quality improvement, ensuring that students are adequately equipped

with the knowledge, skills, and confidence to excel in their licensure examinations and professional careers.

Ultimately, this study highlights that risk mitigation in educational institutions is a dynamic and iterative process, requiring institutional commitment, faculty engagement, and student accountability. By continually refining and adapting risk management strategies, SPUP can further enhance its reputation as a center of excellence in Allied Health Professions Education, fostering academic resilience, faculty stability, and student success in the years to come.

Recommendation

To ensure the sustainability and continuous improvement of the interventions implemented, the following recommendations are proposed, with each recommendation specifically addressed to the relevant stakeholders:

1. For the University Administration to:

- Increase Faculty Retention Strategies by developing a faculty retention and career development program to address high faculty turnover, particularly in the Physical Therapy program. This may include offering competitive salaries, tenure-track positions, and professional growth opportunities to encourage long-term faculty commitment.
- Expand Financial Support for Laboratory and Instructional Resources by allocating additional funding to further improve skills laboratories, ensuring students have access to state-of-the-art equipment and simulation models necessary for hands-on learning.
- Strengthen Student Recruitment and Selection by expanding promotional efforts to attract high-caliber students by enhancing SPUP's visibility through academic partnerships, alumni testimonials, and industry collaborations.

2. For the Deans and Program Heads to:

- Sustain and enhance the Structured Board Exam Review Program by standardizing review attendance monitoring mechanisms to ensure student commitment and participation in all review sessions and expand the use of digital learning tools and AI-driven assessment techniques to enhance students' analytical skills and knowledge retention.
- Enhance data-driven curriculum revisions by conducting a regular review of curriculum effectiveness, utilizing licensure exam performance data, student feedback, and industry trends to ensure continued alignment with CMO requirements and board exam expectations.

3. For the Faculty Members to:

- Adopt innovative teaching strategies by incorporating case-based learning, problem-solving exercises, and scenario-based assessments to develop students' critical thinking and clinical reasoning skills.
- Implement continuous faculty development by engaging in regular training sessions on technology integration, AI-enhanced instruction, and modern pedagogical approaches to improve teaching effectiveness and student engagement.

4. For the Review Coordinators and Instructors to:

- Enhance student motivation and review attendance by implementing incentive programs such as scholarships or recognition awards for students who demonstrate consistent participation in review sessions and utilize peer mentoring programs where successful board passers and topnotchers provide guidance and motivation to current reviewees.
- Introduce personalized learning interventions by conducting diagnostic assessments at the beginning of the review program to identify students' individual learning gaps, allowing for customized review plans that target specific weaknesses.

5. For the Students to:

- Maximize available academic support by taking full advantage of faculty consultations, review programs, and laboratory resources to strengthen their preparedness for the licensure examinations.
- Develop effective study and test-taking strategies by engaging in active learning techniques such as self-quizzing, concept mapping, and time-bound mock exams to enhance information retention and exam performance.
- Commit to regular attendance in review sessions by recognizing that structured review sessions are integral to success, students must prioritize participation and actively engage in all preparatory activities.

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