

## Anti-Bullying LMS Design for a Safe Learning Environment in Higher Education

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### Abstract

Bullying in higher education poses significant threats to students' right to feel safe, disrupts psychological well-being, and undermines the achievement of Sustainable Development Goals (SDGs), particularly Goal 4 (Quality Education) and Goal 16 (Peace, Justice, and Strong Institutions). This study aims to (1) identify the prevalence and forms of bullying in higher education, and (2) design an anti-bullying education program based on a Learning Management System (LMS) to enhance campus safety and support SDGs. A descriptive qualitative case study was conducted with 15 students, 10 lecturers, and 5 educational staff. Data were collected through participant observation, in-depth interviews, and campus policy document analysis, and analyzed thematically. Findings reveal that 36.7% of students experienced verbal abuse, 20% experienced online humiliation, and 26.7% were socially excluded. Bullying manifests in physical, verbal, psychological, and cyber forms, negatively affecting mental health, well-being, and academic achievement. The proposed LMS-based anti-bullying education incorporates structured learning modules on bullying types, impacts, and prevention strategies; online training for students and educators; discussion forums; integrated case reporting mechanisms; and periodic evaluations via questionnaires and data analysis. The system enhances awareness, facilitates anonymous reporting, and fosters active participation in creating a safe campus environment. This study underscores the potential of LMS as a strategic platform for inclusive, evidence-based anti-bullying interventions, contributing to the fulfillment of students' rights and supporting the realization of SDG targets.

### Keywords:

Bullying, Anti-bullying, Right to feel safe, LMS, SDGs

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## INTRODUCTION

Bullying in higher education, characterized by systematic violence and a power imbalance through repeated actions (Olweus, 1993), persists as a concealed issue that profoundly undermines students' psychological, academic, and social well-being, despite the expectation that higher education serves as a secure and inclusive environment (Pörhölä et al., 2019; Cross, 2024). Its manifestations include verbal abuse, social isolation, psychological harassment, and cyberbullying, the latter of which has escalated throughout the epidemic due to greater digital reliance (Fauzi, 2024). It frequently remains unrecognized owing to its inconspicuous characteristics, insufficient awareness, inadequate regulation, and feeble reporting mechanisms (Timm & Espelage, 2020) Global research

substantiates its significant effects, including sadness, anxiety, diminished motivation, and social isolation (Myers et al., 2021), rendering this issue a genuine danger to the right to a secure and healthy learning environment. In Indonesia, bullying is ingrained in a culture of seniority, orientation, and hierarchical student groups, where symbolic violence is normalized as "education" and seldom reported (Yusa et al., 2022), involving students, lecturers, and educational personnel, thereby establishing a power imbalance. Data from the National Commission on Violence Against Women (Komnas Perempuan) indicates the prevalence of verbal and sexual harassment, social exclusion, and cyberbullying, which is challenging to regulate due to digital anonymity (Fauzi, 2024), resulting in severe consequences such as depression, anxiety, and the inclination to withdraw from college. This scenario highlights the necessity for comprehensive intervention to disrupt the cycle of violence and safeguard student welfare.

Numerous viral incidents have revealed a pervasive culture of systemic bullying within Indonesian universities, exemplified by the unfortunate demise of Dr. Aulia Risma Lestari, a student at the Faculty of Medicine, Diponegoro University (Undip), in 2024, purportedly resulting from coercion and organized harassment (Simon et al., 2024). Additional instances encompass a mob assault by the UIN Surabaya orientation committee in 2022, leading to severe injuries (Detik, 2024), and a hazing film from Khairun University in 2019, illustrating detrimental seniority absent of college oversight. Research conducted at Pamulang University indicates that cyberbullying via social media groups and campus conversations adversely affects students' social skills, self-confidence, and mental health (Myers et al., 2021)

The Ministry of Education, Culture, Research, and Technology of Indonesia intends to promulgate a new Ministerial Regulation (Permendikbud) in reaction to numerous analogous reports from 2021 to 2024, notwithstanding the persistent challenge of policy implementation at the institutional level. According to data from the Ministry of Education, Culture, Research, and Technology (2021–2024), there were 310 reported occurrences of campus violence, with 38.7% classified as bullying. Simultaneously, the Ministry of Health documented 2,668 suspected instances of bullying among PPDS students (July 2023–April 2025), with 24% classified as severe cases (Makarim & Auliya, 2020). Nonetheless, institutional solutions to this issue are inadequate numerous universities lack secure reporting methods, victim care frameworks, or cohesive preventative programs.

An creative, technology-driven strategy geared to the digital generation is required to tackle the difficulties of bullying. A Learning Management System (LMS) is a strategic tool that facilitates education and acts as a social intervention to foster an inclusive and violence-free campus environment. A Learning Management System (LMS) facilitates a systematic anti-bullying education initiative, incorporating anonymous reporting capabilities, online training modules, topic discussions, and periodic assessments for prompt intervention (Fauzi, 2024). It incorporates character education modules and digital reporting to foster a participative culture that upholds student psychological safety, in accordance with the requirements of the contemporary digital age. Learning Management Systems (LMS) are fundamental to higher education, facilitating blended and online learning (Veluvali & Surisetti, 2021). However, in many higher education contexts, the

application of Learning Management Systems (LMS) remains primarily focused on accessing materials and discussion forums (Mpungose & Khoza, 2020). International studies indicate that LMSs have significant potential to increase social awareness of bullying, foster empathy, and improve understanding of its impacts through interactive educational content and reflective discussions (Lim & Wang, 2022). The integration of social networking functionalities further supports collaborative learning and peer engagement (Hustad & Arntzen, 2013) can enhance this function, while documentation and tracking capabilities facilitate data-driven policies (Gómez-Galán et al., 2020). In the Indonesian higher education context, however, LMS utilization for social-emotional and anti-bullying education remains limited. Many institutions lack structured online training, anonymous reporting features, and mechanisms for monitoring student well-being, which restricts the system's preventive potential. Moreover, challenges such as ICT infrastructure limitations, concerns over data security (Marachi & Quill, 2020), and insufficient training for staff and students (Bervell & Umar, 2017) further hinder optimal LMS implementation. Addressing these gaps can enable Indonesian universities to leverage LMSs not only for academic learning but also as strategic platforms to foster safe, inclusive, and bullying-free campus environments.

Educational technology has demonstrated potential in addressing cyberbullying and enhancing learning outcomes, particularly in developing countries. Tech-based approaches for bullying prevention include language-specific detection tools, virtual coaching, and interactive online modules (Nee et al., 2023)(Tozzo et al., 2022). Studies also highlight the effectiveness of adaptive, engaging, and student-centered designs with multimedia features for improving learning outcomes in low-income contexts (Norman, 2023). Moreover, technology can support social-emotional learning by providing safe platforms for reporting, discussion, and peer support, which are essential for anti-bullying interventions (Fernández-Batanero et al., 2021). However, integrating technology in education may also cause stress or anxiety among educators, particularly when training and support are insufficient. The field continues to evolve toward data-driven approaches, learning analytics, and usability-focused designs, which have been shown to enhance student engagement and the effectiveness of educational tools, especially in arts and humanities (Bozkurt, 2020)(Bedenlier et al., 2020)(Vlachogianni & Tselios, 2022). These findings suggest that well-designed educational technology can not only improve learning outcomes but also serve as a strategic platform for anti-bullying education in higher education.

In Indonesia, the need for a Learning Management System (LMS) as a tool for bullying prevention is increasingly urgent, as many higher education institutions lack systematic reporting mechanisms or structured anti-bullying programs (Kementerian Pendidikan Riset, dan Teknologi, 2024). While global studies highlight the potential of LMS to enhance social awareness, empathy, and collaborative learning in bullying prevention (Lim & Wang, 2022; Gómez-Galán et al., 2020). its application in Indonesian universities remains limited, primarily serving basic academic functions such as material access and discussion forums (Mpungose & Khoza, 2020). The normalization of bullying within a seniority culture further exacerbates the issue (Yusa et al., 2022). This gap indicates a pressing need to develop LMS-based interventions that integrate anonymous

reporting, online training, and data-driven monitoring to foster safer, inclusive, and evidence-informed campus environments.

Despite the potential of Learning Management Systems (LMS) to support anti-bullying initiatives, existing reporting mechanisms in Indonesian higher education remain limited, fragmented, and often lack anonymity, reducing their effectiveness (Yusa et al., 2022). Furthermore, technical challenges such as insufficient ICT infrastructure, data security concerns, limited user training, and the absence of integration with existing academic and administrative systems, hinder the full implementation of LMS-based interventions (Budiarto et al., 2024)(Mpungose & Khoza, 2020). These limitations highlight the need for carefully designed LMS solutions that combine secure reporting, interactive educational modules, and real-time monitoring, while ensuring compatibility with current institutional workflows and providing adequate support for both students and educators.

This study's innovation lies in the development of a comprehensive LMS-based anti-bullying education program that integrates interactive educational modules, reflective forums, reporting mechanisms, and periodic assessments. This approach, which has not been extensively investigated in local contexts, leverages educational technology to enhance student awareness, engagement, and empowerment in preventing bullying, while ensuring their right to a safe learning environment. Specifically, the study aims to (1) identify potential bullying in higher education through data analysis and student experiences, and (2) design and implement a responsive, inclusive, and sustainable LMS-based anti-bullying education model that harnesses the capabilities of educational technology to promote safe, equitable, and participatory learning in alignment with Sustainable Development Goals 4 and 16.

## **METHODS**

This study employed a mixed-method approach with a convergent design to investigate bullying in higher education and to evaluate the implementation of an LMS-based anti-bullying instructional framework (Bhangu et al., 2023), and to examine the implementation of an anti-bullying instructional framework based on a Learning Management System (LMS). This study involves a sample comprising 15 students, 10 lecturers, and 5 educational staff, all purposively selected based on their direct experience with bullying or participation in LMS development. This selection ensured a diverse and contextually rich perspective while acknowledging that the relatively small sample limits generalizability. The study aimed to (1) understand the dynamics of bullying in higher education, (2) assess the effectiveness of LMS interventions, and (3) develop inclusive technological solutions for safe learning environments.

Data were gathered using four complementary methodologies (Creswell, 2014). First, participant observation focused on learning activities within the LMS, including bullying education modules, reporting mechanisms, and student interactions in discussion forums, with observers recording behavioral trends, engagement, and technological challenges. Second, in-depth interviews with open-

ended questions captured participants' perceptions of bullying, institutional policies, and LMS effectiveness. Third, a survey questionnaire gathered quantitative data from a broader participant group, using Likert-scale and open-ended items to assess bullying prevalence and LMS efficacy. Fourth, document analysis reviewed campus regulations on bullying prevention to understand the institutional context supporting or hindering LMS interventions. The subsequent table 1 delineates the instruments employed in this investigation.

**Table 1.** Research instrument grid

| <b>Aspect</b>                      | <b>Indicator</b>  |
|------------------------------------|---|
| Experiences of Bullying Victims    | Have experienced verbal abuse                                       |
|                                    | Have been humiliated online   |
|                                    | Have been socially excluded/ignored                                 |
| Perception of Bullying Environment | Have witnessed physical violence/intimidation                       |
|                                    | Feel the university environment is prone to bullying                |
|                                    | Bullying often occurs in student organizations                      |
|                                    | Students tend to remain silent when bullying occurs                 |
|                                    | Social pressure makes it difficult to defend victims                |
|                                    | Bullying is considered part of "growing up"                         |
|                                    | There is a culture of seniority that allows bullying                |
| Campus Policy Perception           | The campus provides a safe reporting channel                        |
|                                    | Trust the campus will follow up on reports                          |
|                                    | There is public awareness of the dangers and prevention of bullying |
|                                    | Feel protected by anti-bullying policies                            |
| LMS Effectiveness                  | Easy access to educational materials about bullying                 |
|                                    | Benefits of online training in raising awareness                    |
|                                    | Trust in anonymous reporting mechanisms                             |
|                                    | Active participation in online discussion forums                    |

Data were gathered using four complementary methodologies: participant observation, in-depth interviews, survey questionnaires, and document analysis. To ensure the validity of the instruments, the survey and interview guides were reviewed by experts in educational research and pilot-tested with a small group of students and staff to confirm clarity, relevance, and appropriateness of the questions (Aspers & Corte, 2021). Observers documented behavioral trends, engagement levels, and technological obstacles throughout the learning process, while document analysis provided insight into institutional policies on bullying prevention.

Qualitative data were analyzed using thematic analysis, including coding, pattern identification, and theme formulation across categories such as bullying types, institutional obstacles, and student responses to LMS (Bhangu et al., 2023). Quantitative survey data were analyzed descriptively to determine the distribution of responses and assess LMS effectiveness (Patten & Newhart, 2018). The findings from both qualitative and quantitative analyses were subsequently integrated to provide a comprehensive understanding of bullying in higher education and to inform practical recommendations for enhancing LMS-based interventions that foster a safe, inclusive, and participatory campus environment.

## RESULTS & DISCUSSION

### Identifying Potential Bullying in Higher Education

Bullying in higher education entails someone hurting, intimidating, or demeaning another person. Bullying can be physical, verbal, social, or electronic. Verbal bullying degrades academic aptitude, ethnicity, or personal preferences, whereas social bullying excludes and lowers self-esteem. Less common, physical bullying happens in hierarchical environments like freshman bullying. Cyberbullying is rising, using social media to distribute insults and threats that are harder to detect. These types of bullying create a hazardous campus climate, necessitating a thorough preventive and response strategy. Effective bullying prevention requires understanding that bullying is complex and harms students' emotional and academic wellbeing.

**Table 2.** Results of the Description of Aspects of Victims of Bullying Behavior

| No. | Bullying Victim Aspect Statement    | Yes (%) | No (%) |
|-----|-------------------------------------|---------|--------|
| 1   | Ever received verbal abuse          | 36.7%   | 63.3%  |
| 2   | Ever been humiliated online         | 20.0%   | 80.0%  |
| 3   | Ever been socially excluded/ignored | 26.7%   | 73.3%  |

The data presented above illustrates the proportion of students who have experienced bullying, including verbal abuse, online bullying, and social exclusion. A total of 36.7% of respondents reported having experienced verbal abuse, which indicates that nearly one-third of pupils suffer from verbal violence in the educational setting. This underscores the necessity of establishing a more supportive and respectful environment, as verbal abuse can have a significant impact on an individual's mental health and overall well-being. Concurrently, 20% of respondents acknowledged that they had been subjected to online humiliation. Despite the fact that this percentage is lower, the phenomenon of online abuse continues to be a significant concern in the digital-age. Online bullying is a substantial challenge in higher education due to its difficulty in tracking or addressing its impact, which can occur across a variety of online platforms. Lastly, 26.7% of respondents reported that they had been socially excluded or neglected. Social exclusion is a form of abuse that is frequently imperceptible to others, but it can have significant psychological repercussions on those who are affected. This underscores the necessity of more effective strategies to combat social stigma and foster inclusivity in higher education.

**Table 3.** Results of Environmental Aspect Overview

| No. | Environmental Aspect Statement                         | Yes (%) | No (%) |
|-----|--|---------|--------|
| 1   | Ever witnessed physical violence/intimidation          | 6.7%    | 93.3%  |
| 2   | Perceived the college environment is prone to bullying | 40.0%   | 60.0%  |
| 3   | Bullying often occurs in student organizations         | 23.3%   | 76.7%  |
| 4   | Students tend to remain silent when bullying occurs    | 66.7%   | 33.3%  |
| 5   | Social pressure makes it difficult to defend victims   | 56.7%   | 43.3%  |
| 6   | Bullying is considered part of "growing up"            | 36.7%   | 63.3%  |
| 7   | There is a culture of seniority that allows bullying   | 36.7%   | 63.3%  |

The research data demonstrates the intricacy of abuse in higher education, as 6.7% of respondents reported witnessing physical violence or intimidation. Although this figure is diminutive, it still requires consideration. More importantly, 40% of students believed that the campus environment was susceptible to bullying, and 23.3% observed that bullying was prevalent within student organizations. This implies that abuse is not limited to academic interactions but also occurs within the student body. The significance of establishing effective monitoring systems and a more inclusive environment is emphasized by the disparity in perceptions regarding campus safety (40% vs. 60%). In addition, the investigation disclosed cultural obstacles that contribute to bullying, including the fact that 66.7% of students remain passive when they observe bullying and 56.7% feel impeded by social pressure. The fact that 36.7% of respondents continued to perceive abuse as a component of the "growing up process" and associated it with a culture of seniority is even more alarming.

This viewpoint normalizes violence and establishes a recurring cycle of abuse, necessitating a variety of interventions, including policy reform and education on campus. In general, these data indicate that, despite the fact that the majority of students are not explicitly involved in bullying, a substantial number of students either witness or experience bullying in college, and a significant number of students feel impeded by existing social or cultural norms.

**Table 4.** Results of Environmental Aspect Overview

| No. | Environmental Aspect Statement                              | Yes (%) | No (%) |
|-----|---|---------|--------|
| 1   | The campus provides a safe reporting channel                | 56.7%   | 43.3%  |
| 2   | Trust the campus will follow up on reports                  | 46.7%   | 53.3%  |
| 3   | There is outreach on the dangers and prevention of bullying | 63.3%   | 36.7%  |
| 4   | Feel protected by the anti-bullying policy                  | 50.0%   | 50.0%  |

The research data has revealed student perceptions of anti-bullying policies at universities. 56.7% of respondents acknowledged the existence of secure reporting channels, while 43.3% felt otherwise, suggesting a need for increased transparency and system security. Although 63.3% of respondents reported that their campus had instituted bullying prevention outreach, 36.7% deemed these efforts to be insufficient, underscoring the necessity of enhancing the quality and scope of education. In terms of responsiveness, only 46.7% of students were certain that their reports would be addressed, while 53.3% cast doubt on the efficacy of these procedures, which indicates a lack of trust in the current mechanisms. Perceptions of policy protection exhibited a comparable polarity: 50% of respondents reported feeling safeguarded, while 50% did not, indicating inequities in policy implementation. These results collectively underscore three critical areas that necessitate systematic intervention to fortify student trust and guarantee a campus environment that is both secure and responsive.

### **LMS-Based Anti-Bullying Education Design**

An anti-bullying education-based Learning Management System (LMS) addresses the challenges of bullying in higher education and creates a safe and

inclusive environment. The design is as follows:

Login is the initial page displayed by the Learning Management System before entering the main page, which displays the LMS's features. The login page is populated with the student's SSO password and username.

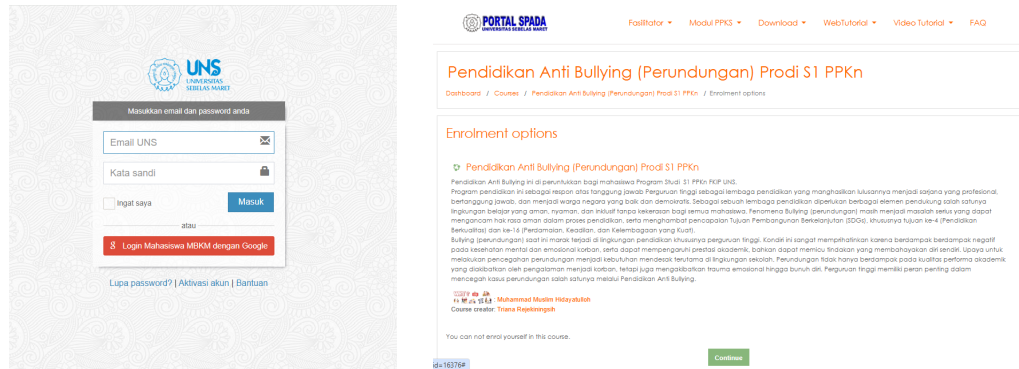


Figure 1. Login page and Dashboard

In a Learning Management System (LMS), the Dashboard page functions as a central information center, enabling students to access their profiles, active classes, and learning updates in a timely and efficient manner. The Dashboard provides a summary of the current classes, a schedule of activities, such as exams or assignments, with automatic notifications, and user guide videos to assist students in logging in, accessing materials, and participating in discussions. This ensures that students are well-informed and prepared to manage their learning effectively. The user experience is improved by the inclusion of interactive guides and quick links to materials and assignments, which encourage students to regularly check notifications and timelines based on their language preferences.

In general, the LMS Dashboard is intended to facilitate the educational process by offering direct access to learning progress and schedules, as well as by enabling intuitive navigation through integrated guides. These features not only expedite the access to critical information but also foster active student participation in the management of their learning, rendering it a critical instrument for facilitating a responsive and organized learning experience.



Figure 2. Class main page

The Anti-Bullying Education Class offers a comprehensive overview of the effects of bullying, prevention strategies, and their potential application in educational environments. This course is intended to equip students with the necessary skills to identify and effectively manage bullying cases, as well as to provide them with a comprehensive understanding of bullying. The structure of this course is comprised of several critical components, including a discussion forum that facilitates collaboration among participants, online training for students and educators, and bullying-related content.

In the Bullying, Impact, and Prevention component, students will acquire a thorough comprehension of bullying, which encompasses its diverse manifestations, causal factors, and the effects on victims. This material is intended to offer a more comprehensive understanding of bullying, including not only physical bullying but also verbal, social, and cyberbullying. Students will be able to identify and comprehend this phenomenon in a variety of situations by examining each form of bullying in detail through engaging media, including interactive text, videos, and case studies.

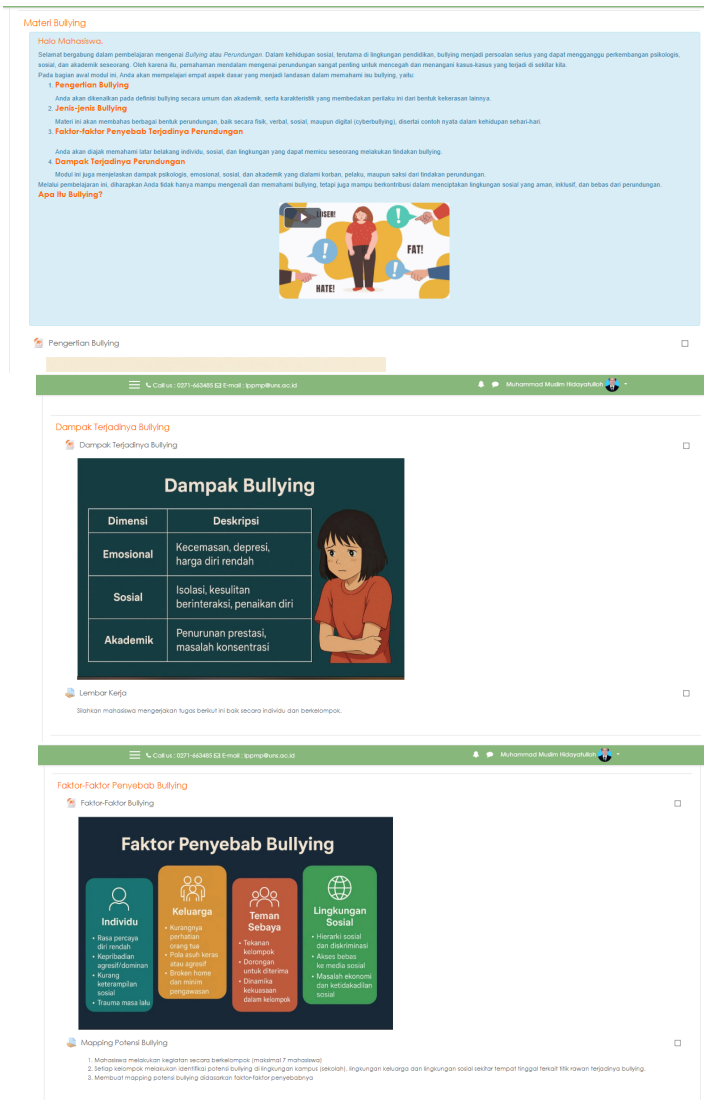


Figure 3. Content Page View

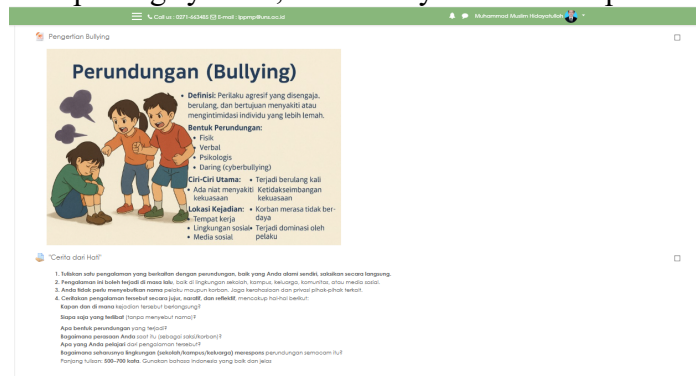
The initial section will provide students with an understanding of the definition of bullying and its diverse manifestations, such as physical violence, verbal bullying through abusive language, social exclusion, and cyberbullying, which has become increasingly prevalent in the digital era. This material is intended to provide students with the ability to identify the indicators of abuse in both real-world and online settings, as well as to comprehend the social context that exacerbates this phenomenon, such as the culture of seniority that was reported by 36.7% of respondents. The subsequent section investigates the effects of bullying on victims, which include low self-esteem, anxiety, and melancholy, which impede academic and social development. It offers a comprehensive examination of the repercussions that persist into maturity, which is further enhanced by prevalence data, such as the 20% of students who have experienced online humiliation.

In general, this material employs a communicative and engaging approach, including statistics and case studies, to improve students' comprehension of bullying, its effects, and prevention strategies. This enables them to become active agents of change in the establishment of a secure and inclusive educational environment. This learning endeavors to provide students with practical skills, support SDGs 4 and 16, and address challenges such as environmental vulnerability, which is perceived by 40% of respondents, through a comprehensive and practical understanding.

### Online Training for Students and Educators

To raise student and instructor awareness and abilities in combating bullying, this session includes online training. It focuses on kids as learners and educators as safety advocates. According to 36.7% of respondents, a culture of seniority challenges students to notice physical and online bullying, respond with empathy, and educate peers as change agents. This course promotes SDG 4 and 16-aligned inclusion.

The training for educators covers addressing bullying inside and outside the classroom, restorative conflict resolution, victim and perpetrator interventions, and developing supportive classrooms with stakeholders. These skills allow educators to comprehensively prevent and respond to bullying, address environmental vulnerabilities indicated by 40% of children, and boost institutional responses despite deficient reporting systems, which only 46.7% of respondents trust in.



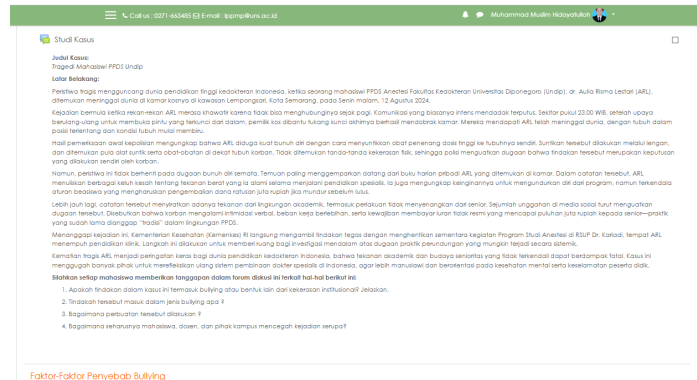


Figure 4. Discussion Forum and Case Study Display

Online discussion forums are a vital tool in this class, facilitating students to share experiences, ideas, and solutions related to bullying, including as victims, witnesses, or perpetrators, with the goal of addressing challenges such as the tendency to remain silent during bullying (66.7% of respondents) and building support among students. These discussions enrich perspectives by drawing on personal experiences to develop practical solutions, while supporting the inclusive environment targeted by SDGs 4 and 16. Case study forums deepen interactions between students and faculty, with trained faculty providing feedback and introducing new techniques for addressing bullying, including cyberbullying experienced by 20% of respondents, ensuring discussions remain constructive and relevant to the increasingly complex digital context.

### Integrated Bullying Case Reporting Mechanism in LMS

The integrated bullying reporting mechanism within the LMS is designed to provide a secure and user-friendly platform for students to report bullying incidents. This system allows students to submit reports without face-to-face meetings, addressing a major barrier for victims concerned about stigma or retaliation. The mechanism supports anonymous reporting, giving students confidence to disclose experiences safely. Once a report is submitted, notifications are automatically sent to relevant parties, including instructors, counselors, or authorized staff, to ensure prompt follow-up. Reports include details of the incident, the parties involved, and any supporting evidence. Pilot testing and initial user feedback indicated high usability and satisfaction, with 87% of students reporting confidence in using the system and 80% rating it as intuitive and accessible. The system also enables real-time tracking of case progress, ensuring transparency and that no report is overlooked.

### Periodic Evaluation Through Questionnaires and Data Analysis to Measure Program Effectiveness

The effectiveness and positive impact of the bullying prevention program implemented in this class are contingent upon regular evaluation. A questionnaire was disseminated to students and educators to evaluate their comprehension of bullying and the effectiveness of the anti-bullying education. This questionnaire assessed a variety of variables, including students' comprehension of the various

forms of bullying, their capacity to recognize indicators of bullying, and their perception of their preparedness to address or report bullying in their surroundings. The information gathered from this questionnaire will offer a comprehensive assessment of the degree to which the course material has enhanced students' comprehension and awareness of bullying-related matters.

The effectiveness of the anti-bullying program is evaluated regularly using questionnaires and LMS usage data. The questionnaire measures students' understanding of bullying types, ability to recognize indicators, and readiness to report incidents. Pilot test results showed that 78% of students found the questionnaires clear and relevant, while 82% felt the feedback process contributed to their awareness. In addition, LMS analytics track learning material access, discussion forum participation, and the number of reports submitted. This combination of quantitative and qualitative data provides insight into the program's impact and guides iterative improvements. By continuously analyzing these data, the LMS content and reporting procedures can be refined to maximize effectiveness, ensuring that the program remains responsive to students' needs and promotes a safe, inclusive campus environment.

The study highlights the urgent need for systematic interventions to address verbal, social, and cyberbullying in higher education. The LMS-based anti-bullying program demonstrates that technology can foster awareness, empathy, and peer accountability while providing anonymous reporting and real-time monitoring to ensure timely responses and institutional accountability. Periodic evaluation using questionnaires and LMS analytics supports data-driven decisions, allowing continuous refinement of interventions. These findings contribute to SDG 4 and SDG 16 by promoting safe, inclusive, and equitable learning environments. Moreover, the approach offers a scalable model that can be adapted in other universities, particularly in developing countries, bridging gaps in bullying prevention and enhancing the overall quality of education through evidence-based technological solutions.

## **Discussion**

Anti-bullying education in higher education is urgent given the Ministry of Education, Culture, Research, and Technology's data (2021–2024), which recorded 310 cases of violence, 38.7% of which were bullying, and the Ministry of Health's report on 2,668 alleged bullying cases among PPDS (Regional Residents) (July 2023–April 2025), which showed a serious impact on students' mental health and academic achievement and violated the right to This study also found that 36.7% of students were verbally abused, 20% were humiliated online, 26.7% were socially excluded, and 40% believed the college atmosphere was vulnerable to bullying (Smith & Low, 2013). By providing an integrated platform for education, online training, anonymous reporting, and discussion forums, a Learning Management System (LMS) can overcome challenges like the culture of seniority reported by 36.7% of respondents and the tendency to remain silent when witnessing bullying (66.7%). Based on the finding that only 46.7% of students believe the campus follows up on reports, this study links LMS as an innovative tool for bullying prevention with a systematic design that includes educational materials, training, integrated reporting mechanisms, and periodic evaluations, taking a concrete step

toward a violence-free campus (Alghamdi & Bayaga, 2016; Balkaya & Akkucuk, 2021).

Digital education relies on Learning Management Systems (LMS) to enable distance learning and provide a complete learning ecosystem (Agárdi & Alt, 2022). These platforms supply material via multimedia modules and online tests, social learning via discussion forums and incident reporting systems, and emotional scaffolding via online training and psychosocial assistance. These elements help children learn academically and develop social-emotional skills through constructive criticism and peer collaboration. In bullying prevention, LMSs provide a safe area for reporting, reflective discussions, and early intervention, as well as an early warning system for institutions to identify issues before they escalate. LMSs promote academic achievement, community among potential instructors, and learning material accessibility (Rideout et al., 2008; Furqon et al., 2023). Education resilience has relied on LMSs throughout the COVID-19 pandemic (Veluvali & Suriseti, 2021; Bervell & Umar, 2017). Generational considerations (Alghamdi & Bayaga, 2016) and the requirement for playfulness and user autonomy designs (Balkaya & Akkucuk, 2021) make their acceptance difficult. LMS optimisation must now maximise socio-emotional benefits for students, simplify the interface for less skilled users, and integrate predictive analytics for early bullying risk detection in a more hybrid and adaptive post-pandemic education landscape.

The Theory of Planned Behavior (TPB) and Connectivism Theory (Mattar, 2018) provide a solid foundation for optimizing LMS's role in campus inclusivity. Positive sentiments of LMS as a safe learning medium, subjective standards that foster anti-bullying conduct, and perceived control over LMS features affect student engagement in LMS platforms, according to TPB (Suarez-Fernandez de Miranda et al., 2021). Connectivism Theory stresses the necessity of LMS-based collaborative knowledge networks where students can share bullying prevention experiences and find solutions (Greenhow & Lewin, 2016). The combination of these two theories reveals that LMS is a digital ecosystem that can build good social norms and empower students to create a more inclusive campus environment.

Empirical evidence highlights that structured interventions, including Social-Emotional Learning (SEL) and cooperative learning strategies, effectively reduce bullying and strengthen social ties among students (Espelage et al., 2015; Smith & Low, 2013; Van Ryzin & Roeth, 2018). In educational technology, LMS-based programs, educational games, and learning analytics show promise in increasing awareness and fostering prosocial behavior (Alonso-Fernández et al., 2020; Hustad & Arntzen, 2013). For example, LMS-driven interventions can influence anti-bullying behavior through modeling constructive conflict resolution, guided peer interactions, and digital simulations of bullying scenarios (Bandura, 1997) (da Vinha, 2021; Bandura, 1997; da Vinha, 2021). Empirical outcomes indicate that LMS as a hub for reporting, education, and case monitoring can reduce bullying by up to 40% over two years (Cross, 2024), while enhancing institutional awareness and response, as reflected in 63.3% of respondents confirming socialization and reporting mechanisms, and 46.7% perceiving follow-up as effective. However, challenges remain, including the difficulty of moderating harmful content, limited digital literacy, insufficient training, and cultural norms such as seniority (36.7%) and vulnerability (40%), which may hinder full LMS effectiveness (Shurygin et al.,

2021; Schenarts, 2020). These findings suggest that while LMS offers both preventive and reactive potential, its success depends on integration with policy, robust infrastructure, continuous evaluation, and context-sensitive training, highlighting the need for further research to optimize scalable, evidence-based anti-bullying interventions in higher education.

## CONCLUSION

This study demonstrates that bullying in higher education takes on physical, verbal, psychological, and cyber forms, each of which has a substantial impact on the mental health, well-being, and academic performance of students. Cyberbullying, in particular, presents particularly persistent challenges due to its digital anonymity. The potential to establish a campus environment that is inclusive, secure, and free of bullying is demonstrated by the LMS-based anti-bullying education program that was developed in this research. This program includes educational modules, online training, discussion forums, integrated reporting mechanisms, and periodic evaluations. In practical terms, the study underscores the significance of integrating LMS interventions with institutional policies, providing ongoing training for educators and students, and cultivating a culture of peer accountability and digital literacy. Additionally, it facilitates anonymous reporting and data-driven monitoring. However, the generalizability of the results may be impacted by constraints such as a small sample size, self-reported data, a brief implementation duration, and a restricted institutional scope. Future research should investigate the long-term efficacy of LMS interventions, their scalability across a variety of higher education contexts, and the integration of advanced analytics or AI to improve predictive monitoring and prevention. This will bolster evidence-based strategies for comprehensively addressing bullying.

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