

SPEAKS Model: Design and Validation for Preventing Sexual Violence in Religious Higher Education

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Abstract

Sexual violence is a global issue that requires responsive reporting and case management mechanisms in higher education. To address this need, the SPEAKS model was developed as a digital system integrating structured reporting and case management procedures for sexual violence. This study aimed to design, implement, and conduct an initial validation of the SPEAKS model for supporting the prevention and handling of sexual violence in religious higher education institutions. A Research and Development (R&D) approach was employed using the ADDIE model and a mixed-methods design. Qualitative data were collected through Focus Group Discussions (FGDs) to identify user needs and develop the model, followed by a quantitative usability evaluation involving 52 respondents. The evaluation showed an effectiveness rate of 97.5%, a time-based efficiency value of 0.00738 goals/second, and a System Usability Scale (SUS) score of 70.08 (Good). These findings indicate that the SPEAKS model provides a structured digital reporting and case management mechanism and demonstrates good usability in terms of effectiveness, efficiency, and ease of use as an initial validation of the model. Further research should include comparative evaluations, pilot implementation, and longitudinal studies to assess the model's long-term impact.

Keywords: Sexual violence prevention, Religious higher education, SPEAKS model.

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1. Introduction

Sexual violence and harassment in higher education institutions have become serious issues that occur not only locally but also globally (Whitaker et al., 2025; Wood et al., 2021). For example, in Ghana, of 200 survey respondents, 41% reported experiencing sexual violence in their lifetime, while 37.8% stated that the experience was a traumatic event that continues to impact them today (Ben-zeev et al., 2025). Espelage et al. (2022) also noted that sexual violence among high school students in Colorado, United States, is very high, including sexual harassment, unwanted sexual contact, and sexual coercion. These cases demonstrate that sexual violence is a transnational issue that requires serious attention from educational institutions. Conceptually, sexual violence encompasses various sexual acts, attempts to obtain sexual favours, unwanted sexual comments or advances, and other forms of coercion carried out without the victim's consent (Esayas et al., 2023). In practice, sexual violence can occur in various forms, such as rape (Jewkes et al., 2022), sexual harassment (Bondestam & Lundqvist, 2020; Burn, 2019), and sexual exploitation (Drejer et al., 2024; Moss et al., 2023; Roche et al., 2023). Maghin et al. (2022) identified that women are often the most vulnerable group to sexual crimes in various social contexts. This violence often occurs hidden as silent violence, which can take the form of physical and sexual violence and deprivation of rights and humiliation in interpersonal relationships (Mazza et al., 2020; Saputra & Saputra, 2026). Sexual harassment is not only an individual problem but is also influenced by organizational structures, power relations, institutional culture, and broader social norms within a university (Bondestam & Lundqvist, 2020).

Amid the growing global concern, educational institutions in various countries are beginning to develop evidence-based mechanisms for preventing and addressing sexual violence, taking into account the diversity of social and cultural identities (Espelage et al., 2022; Ubaidillah et al., 2023). Policies that support human rights protection are crucial for creating a safe and productive academic environment. Responding to the demands and needs of sexual violence,

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Indonesia, a country that upholds norms and culture, has required educational institutions to establish a task force for preventing and addressing sexual violence as a response to this issue (Harahap et al., 2025; Imania & Santoso, 2024). The task force serves as an institutional mechanism for receiving reports, providing support to victims, and ensuring that the handling process is carried out in accordance with the principles of justice and victim protection (Mudzakir et al., 2024; Wood et al., 2021).

Efforts to strengthen policies are also evident in universities under the Ministry of Religious Affairs, which have implemented specific regulations through Ministerial Regulation (PMA) Number 73 of 2022 concerning the prevention and handling of sexual violence in religious universities. Religious universities inherently have their own characteristics, functioning not only as academic institutions but also as spaces for the formation of moral, ethical, and spiritual values for students (Belachew & Midakso, 2023; Hidayah, 2021). By integrating academic education with religious values, religious universities can shape intellectual character, moral integrity, and ethical awareness in social life (Afrina et al., 2025; Batool et al., 2026; Jomezai et al., 2021; Nazula et al., 2024; Ummah, 2026). However, the existence of moral and religious values within these institutions does not directly guarantee a campus environment free from the potential for sexual violence. Therefore, mechanisms for handling and preventing sexual violence are needed that are not only normative but also operational, easily accessible, and capable of reaching the entire academic community.

With the advancement of digital technology, this approach has begun to be utilized as an innovative tool to support the prevention and management of sexual violence. Digital technology is considered capable of expanding access to reporting services, increasing sexual violence literacy, and strengthening responsive support for victims (Almansori et al., 2025; Zagloul et al., 2022). An example of existing studies that have demonstrated that digital technologies can facilitate sexual violence reporting through mobile applications, web-based platforms, and online reporting systems is the development of the Text4Life system, a mobile-based reporting system utilizing USSD and SMS gateway technology that facilitates reporting of gender-based violence cases in rural Nigeria, allowing victims to report cases quickly without requiring internet access (Okonofua et al., 2024). Other studies have explored web-based reporting platforms and technology-assisted interventions to improve reporting accessibility and user engagement (Baldwin et al., 2022; Hillert et al., 2024). A digital resilience approach also encourages individuals' adaptive capacity in the face of technology-based sexual violence threats such as sexual blackmail and revenge pornography (Amadori & Brighi, 2025). While SAPA 129 serves as Indonesia's national violence reporting platform, its broad public-oriented scope leaves a significant gap in providing an integrated digital governance system tailored to the unique institutional context of higher education.

Although various digital innovations have been developed, several studies indicate that the application of technology to prevent and address sexual violence in higher education remains limited. Bondestam & Lundqvist (2020) stated that formal reporting mechanisms in educational institutions remain ineffective in terms of accessibility, transparency, and victim protection. Another study showed that the integration of digital systems in the prevention and response to sexual violence has not been carried out sustainably, particularly in terms of system testing with users (Baldwin et al., 2022). Furthermore, most research on digital innovations for the prevention and response to sexual violence remains dominated by quantitative approaches, whose conceptual frameworks primarily draw on Western contexts, thereby neglecting the distinct social, cultural, and religious dimensions of other countries (Bondestam & Lundqvist, 2020).

Based on this gap, the present study aims to develop and examine the SPEAKS (Sexual Violence Prevention and Handling Information System) model as an integrated digital governance framework for managing sexual violence cases in religious higher education institutions. Unlike existing digital reporting platforms that primarily facilitate complaint submission, SPEAKS integrates the entire institutional governance process from reporting and case verification to decision-making, victim support, and post-case monitoring within a unified digital workflow. By connecting victims, the Sexual Violence Prevention and Response Task Force, the Inspectorate General, the Directorate of Supervision, and university leaders, the proposed model seeks to strengthen institutional coordination, improve transparency and accountability, and enhance the effectiveness of sexual violence prevention and response. The study contributes to the literature by proposing a governance-oriented digital framework that extends beyond technological innovation to support institutional capacity building and sustainable governance in addressing sexual violence within religious higher education institutions.

2. Methods

This study was conducted at six religious universities representing Islamic, Hindu, and Buddhist institutions. The research analysis includes institutional processes in handling and preventing sexual violence in religious universities as

well as the roles of the actors involved, such as lecturers, students, education staff, the Task Force for Prevention and Handling of Sexual Violence, the Centre for Gender and Child Studies, and the Inspectorate.

The approach used in this study is research and development (R&D), adopting the ADDIE (Analyze, Design, Develop, Implement, Evaluate) model developed by Branch (2009). To understand the complexity of the problem and to design an appropriate framework, this study employs mixed-methods exploring sequential design. This approach was chosen because it allows researchers to integrate the results of qualitative and quantitative analyses sequentially. Qualitative data were used to identify user needs, develop the SPEAKS model, and explain the quantitative evaluation results. Furthermore, quantitative data was used to evaluate system performance based on effectiveness, efficiency, and user experience.

The initial stage involved collecting and analyzing qualitative data to identify user needs, institutional processes, and existing practices. The findings from this stage formed the basis for designing the SPEAKS model as a process-based framework for reporting, handling, and preventing sexual violence. Next, a quantitative stage was conducted to evaluate and validate the developed model. The research data sources consisted of primary and secondary data. Primary data was obtained through semi-structured interviews and focus group discussions with informants from the actors involved. Semi-structured interviews were conducted with 15 informants: three Center for Gender and Child Studies administrators, three Sexual Violence Prevention and Response Task Force members, three lecturers, three education staff, and three students from six religious higher education institutions. Informants were selected using purposive sampling based on their involvement in sexual violence prevention and response services. Primary data was obtained through usability testing, which included effectiveness, efficiency, and user experience. The user experience testing involved 52 respondents, consisting of lecturers, teaching staff, and students. Of these 52 respondents, 10 were randomly selected to participate in the effectiveness and efficiency testing as system users. Meanwhile, secondary data was obtained through a literature review of international journals, regulations, and institutional documents related to the prevention and handling of sexual violence in higher education.

Qualitative data analysis was conducted on the results of semi-structured interviews, observations, and Focus Group Discussions (FGDs) using thematic analysis. All interview results were first transcribed verbatim, and then an open coding process was conducted to identify keywords, user needs, problems, and system development proposals that emerged from each informant. The coding process was carried out using NVivo software, where these themes were then used as the basis for designing workflows and developing features in the SPEAKS model. The categories of themes formed were digital reporting, institutional verification, institutional governance, decision-making, victim protection, and case monitoring. From these categories, the main themes were then identified that became the basis for compiling the SPEAKS model and developing system features.

Quantitative data analysis was conducted descriptively on usability testing results, including assessments of effectiveness, efficiency, and user experience. Effectiveness was measured using task completion success rates based on four representative scenarios: account registration, user login, report submission, and case progress monitoring. Each task was evaluated using Success (S) and Partial Success (PS) criteria to determine the extent to which users could complete the required workflow independently. Efficiency was evaluated using the time-based efficiency (TBE) metric by comparing the time users required to complete each task with the benchmark time set by expert users. This measurement assessed how efficiently users interacted with the system while performing the reporting process. User experience was assessed using the System Usability Scale (SUS), which measured users' perceptions regarding ease of use, learnability, and overall usability of the SPEAKS model. User experience evaluation was conducted using a Likert-scale questionnaire (1-5) to measure the model's effectiveness.

This research was conducted in accordance with ethical research principles, considering the sensitive nature of the topic being studied, which concerns sexual violence. Before data collection, all participants received an explanation of the research objectives and signed an informed consent form. Respondents' identities were kept confidential through data anonymization, while all information obtained was used solely for research purposes. The SPEAKS system implemented data security mechanisms to protect the confidentiality of victims' identities and ensure that case information was accessible only to authorized parties. Furthermore, this research was conducted after obtaining permission from the institutions involved.

3. Result and Discussion

This section presents research findings related to the development and implementation of the SPEAKS model as a digital-based framework for the prevention and handling of sexual violence in religious higher education institutions.

The data analyzed came from interviews, focus group discussions, observations, and usability test results for the developed system. The stages of the ADDIE model organize the presentation of the results needs analysis, system design, development, implementation, and evaluation.

3.1. Need Analysis

The needs analysis stage was conducted through interviews and focus group discussions (FGDs) involving several stakeholders within religious higher education institutions. The needs analysis revealed mechanisms for handling and preventing sexual violence in institutions across three aspects: reporting, handling, and decision-making (Mzilangwe et al., 2024). Table 1 presents the mechanisms identified in these three aspects.

Table 1. Mechanisms for Handling and Preventing Sexual Violence in Religious Higher Education Institutions

No.	Aspect	Mechanisms
1.	Reporting	Reports are made through various channels, including direct reporting, Google Forms, and WhatsApp. Reports can come from victims or third parties. The Task Force verifies the perpetrator's identity, validates the chronology of events, and groups cases based on location
2.	Handling	The Task Force conducts initial investigations of reports, gathers preliminary evidence, and classifies cases as internal or external. The handling process includes formulating conclusions, providing recommendations for action to management, assisting victims, prosecuting perpetrators, recovering victims, and post-case monitoring while maintaining data confidentiality
3.	Decision-making	The ethics committee holds an ethics hearing based on the results of the Task Force's investigation. The ethics hearing forum assesses violations and formulates recommendations for sanctions. The campus leadership makes a final decision based on these recommendations. The decision is officially recorded and reported to the Ministry of Religious Affairs.

As illustrated in Table 1, the institutional mechanism for responding to sexual violence cases can be understood through three related aspects: reporting, response, and decision-making. Universities provide several reporting channels so that victims can submit complaints either directly or through indirect mechanisms. Once a report is received, the Sexual Violence Prevention and Response Task Force begin with an initial review of the case and gathers preliminary evidence relevant to the reported incident. At this stage, the case is also categorized as internal or external to determine the appropriate handling procedure.

The response stage involves several follow-up actions, including preparing recommendations for university leadership, providing recovery support to victims, and monitoring the case after it has been addressed. The decision-making process takes place during an ethics hearing organized by the ethics committee, which relies on the Task Force's findings. During this process, the committee assesses the nature of the violation and formulates recommendations for sanctions. These recommendations serve as the basis for university leaders to make the final decision, which is subsequently reported to the Ministry.

Based on a needs analysis, addressing sexual violence in religious higher education institutions requires comprehensive management, not just reporting. This process must be integrated, from initial reporting through intersectoral coordination, decision-making, intensive victim support, and case monitoring. Focus group discussions (FGDs) and interviews also revealed difficulties in dividing authority and responsibilities at each stage, necessitating a structured workflow. The SPEAKS model provides operational solutions designed directly based on real-world conditions.

3.2. Design

The SPEAKS model design, derived from the needs analysis, is implemented as a process flow to address and prevent sexual violence. This model demonstrates case management that integrates all authorized parties within a single, coordinated mechanism. Through this model, each stage of handling, from reporting, verification, confirmation, decision-making, providing services to victims, to monitoring case progress, is linked into a systematic workflow, enabling designated parties to carry out their duties and responsibilities within their respective jurisdictions.

The SPEAKS model involves four main groups: the Task Force for the Prevention and Handling of Sexual Violence, the victim, the Inspectorate General of the Ministry of Religious Affairs, and the Directorate of Supervision. The process begins when the victim registers and submits a case report through the system. Subsequently, the report is assessed based on the perpetrator's status, whether he is an official or not. The Task Force and the Inspectorate General then

verify the results of this assessment. Once verification is deemed to meet the requirements, data confirmation is conducted to ensure the report's validity.

If the confirmation result is declared invalid, the handling process is stopped. Conversely, if the report is declared valid and the perpetrator is not an official, the Task Force handles the case by summoning the perpetrator, preparing recommendations, and producing a recommendation report. If the perpetrator is an official, the handling process is continued by the Inspectorate General of the Ministry of Religious Affairs, which is tasked with conducting further verification and determining whether the case can be continued or terminated. The overall SPEAKS model is shown in Figure 1.

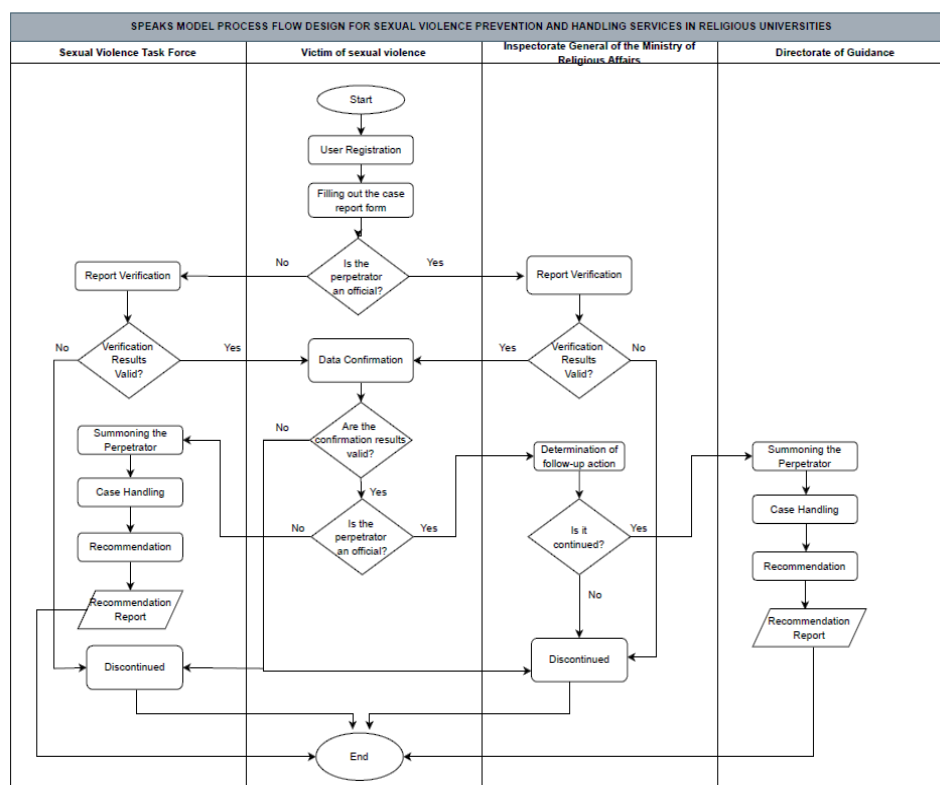


Figure 1. SPEAKS Model Process Flow Design

Meanwhile, the Directorate of Supervision, in certain cases, follows the same steps: summoning the perpetrator, handling the case, issuing recommendations, and issuing a report on the recommendations. At each stage, the final result is a recommendation report that serves as the basis for decision-making. This entire process emphasizes the principles of multi-layered validation, accountability in decision-making, and victim protection. The SPEAKS model is a governance model that integrates a multi-level verification process, in which coordination among parties, decision-making, victim protection, and case monitoring are carried out transparently within a single system specifically designed for religious higher education.

3.3. Developing

The development stage is carried out based on the system design prepared in the previous stage. System development includes various model components and supporting features that enable the system's effective operation. There are several things that form the basis for the development of the SPEAKS model after the design plan obtained from the recommendations of Sexual Violence Prevention and Response Task Force through interviews and focus group discussions, including: 1) development of system content in determining the identity of the perpetrator, case chronology, and sexual type categories; 2) development of a platform in the form of a Q&A chatroom feature for responsive communication as well as a self-reporting system and case progress tracking; 3) the need for special services for victims such as psychologists, religious leaders, legal aid, and health services; 4) limited trials and system usage guidelines for the task force and students; 5) strengthening the data security system to anticipate misuse; 6) integration of case handling

deadlines as a technical feature in the SPEAKS model. All features are developed based on needs identified during the analysis stage, so that the resulting prototype reflects real-world conditions in the field.

3.4. Implementation

The implementation phase involved a structured testing scenario designed to simulate the actual process of reporting sexual violence cases at the university. System testing used a simulation in which participants acted as different types of users, including students, lecturers, and administrative staff, each representing a different reporting situation. This approach allowed for an evaluation of the system under conditions similar to real reporting practices on campus. From a technical perspective, participants were instructed to access the system at the addresses `speaks.click` or `speaks.web`, which directed them to the system dashboard interface, as illustrated in Figure 2.

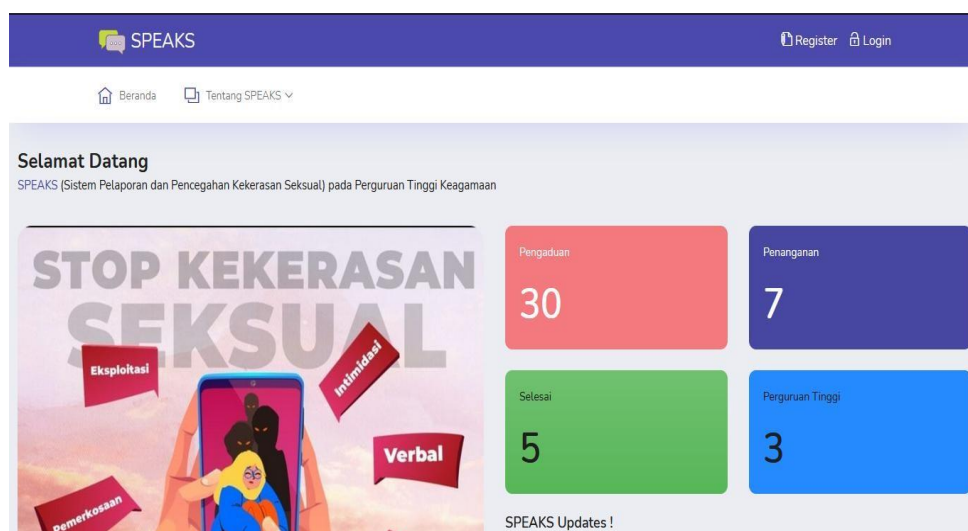


Figure 2. SPEAKS Dashboard

Users were asked to perform several system usage scenarios, including account registration, login, case reporting, and report progress monitoring. The system's main page displays a simple yet informative interface equipped with navigation, register, and login buttons. The application dashboard displays case statistics, reporting status, change history, and features for creating new reports and providing feedback questionnaires. When a user creates a new report, an encryption mechanism is used to ensure the confidentiality of the victim's identity, protecting the stored information from unauthorized access. Users can carry out the login process as shown in Figure 3.

Figure 3. User Login

Students were presented with scenarios involving reporting incidents they or their peers had encountered, including perpetrators from both within the university (such as lecturers and administrative personnel) and outside it. Lecturers and administrative staff, in turn, were given scenarios requiring them to report cases involving themselves, their colleagues, and students, with a diverse array of perpetrators from both on- and off-campus locations.

The design of each scenario was intended to rigorously test the system's capacity to effectively address a broad spectrum of potential sexual violence cases that could arise within a university setting. The implementation of the SPEAKS model demonstrates a function not only as a reporting system but also as an instrument that emphasizes flexibility, data security, and active user engagement.

3.5. Evaluation

The SPEAKS model evaluation was conducted through usability testing to assess the feasibility of implementing the model to support the reporting and handling of sexual violence. This evaluation is used to assess user effectiveness, namely the ability to complete the main tasks of the system, the efficiency of task completion time, and the user experience when interacting with the system (Hertzum, 2026). Through this testing, it was possible to determine whether the SPEAKS model met user needs and was suitable for implementation in the early stages of development before evaluating its impact in a broader operational context.

The effectiveness of the SPEAKS model is measured using the Success Rate method, which is based on the respondent's level of success in completing each predetermined task scenario (Ferreira et al., 2020). Effectiveness testing was conducted using four task scenarios that represent the SPEAKS system's primary functions: account registration, logging in, creating a case report, and monitoring report progress. Each scenario was designed to evaluate system elements including input forms, data validation, system notifications, dashboard access, the report submission process, case status displays, progress updates, and menu navigation. Based on the measurement results, 38 Success (S) and 2 Partial Success (PS) categories were identified across 40 completed tasks. The success rate was 97.5%, indicating that the majority of respondents were able to complete all of the system's main functions according to the given scenario. These results demonstrate that the SPEAKS model implementation met the effectiveness aspect in usability testing, as users were able to operate the system's main features with a high degree of success.

Meanwhile, the efficiency of the SPEAKS model was measured using the Time-Based Efficiency (TBE) method, which assesses the user's efficiency in completing each task scenario based on the time required to complete it (Georgsson & Stagers, 2016). Previously, testing was conducted by an expert responsible for system development. The expert's task completion time was used as a measurement indicator to evaluate user efficiency. The measurement results yielded a time-based efficiency of 0.0463 goals/second for the expert, while the calculated time-based efficiency for the user was 0.00738 goals/second. Comparing these two values, the user required approximately 0.16 times as long as the expert. This shows that the implementation of the SPEAKS model has met the efficiency requirement, as users can complete all the system's main functions in a relatively short time without encountering significant obstacles.

In addition to being evaluated based on effectiveness and efficiency, the implementation of the SPEAKS model was also evaluated from a user experience perspective using the System Usability Scale (SUS). The SUS aims to complement usability testing results by measuring users' perceptions of ease of use, acceptance, and satisfaction with the system. This instrument was chosen because it is specifically designed to evaluate user perceptions of a system's usability (Melani et al., 2025) and produces interpretable scores based on user acceptance, scale assessments, adjective rankings, and percentile ranges (Vlachogianni & Tselios, 2022). Before use, the SUS instrument underwent validity and reliability testing, with all items declared valid and reliable based on Cronbach's Alpha values indicating good internal consistency. The results of respondents' assessments of the SPEAKS model implementation are presented in Table 2.

Table 2. Results of user experience instrument implementation of the SPEAKS model

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Sum	Point
RES01	4	2	4	2	3	2	4	2	4	2	29	73
RES02	4	3	4	4	4	4	3	4	4	4	38	50
RES03	5	2	5	2	5	2	5	2	5	2	35	88
RES04	5	4	5	4	5	3	5	2	5	3	41	73
RES05	5	2	5	4	2	1	5	1	5	2	32	80
RES06	4	3	5	5	4	2	5	2	4	5	39	63

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Sum	Point
RES07	4	5	4	2	5	3	5	5	4	4	41	58
RES08	5	3	4	2	4	3	5	2	4	4	36	70
RES09	4	2	4	2	4	2	4	2	4	2	30	75
RES10	4	2	5	2	4	2	4	1	5	2	31	83
RES11	5	3	4	1	3	3	5	2	4	3	33	73
RES12	5	5	5	2	4	2	5	2	5	3	38	75
RES13	5	4	5	2	5	1	5	2	5	2	36	85
RES14	4	4	3	2	4	4	4	2	3	4	34	55
RES15	4	4	5	1	4	2	5	1	5	1	32	85
RES16	5	5	5	5	5	2	4	2	4	4	41	63
RES17	4	4	4	4	4	2	4	2	4	4	36	60
RES18	3	4	4	4	4	4	4	4	4	4	39	48
RES19	4	3	4	4	5	2	4	2	4	4	36	65
RES20	4	3	4	3	5	2	4	2	4	4	35	68
RES21	4	2	4	4	4	2	4	2	4	2	32	70
RES22	5	4	4	4	4	4	4	2	4	2	37	63
RES23	5	2	5	2	5	2	5	2	5	2	35	88
RES24	4	4	4	4	4	2	4	2	4	2	34	65
RES25	1	2	5	2	4	3	4	2	4	2	29	68
RES26	4	2	4	4	4	2	3	3	4	3	33	63
RES27	2	2	4	2	4	2	4	2	4	2	28	70
RES28	3	4	4	2	4	2	4	2	5	2	32	70
RES29	4	4	5	3	3	3	4	2	4	4	36	60
RES30	4	3	5	4	4	3	5	2	4	4	38	65
RES31	4	2	5	2	3	2	5	1	5	2	31	83
RES32	5	1	5	1	5	5	5	1	5	1	34	90
RES33	5	2	5	4	5	2	5	1	5	2	36	85
RES34	4	1	5	2	5	1	4	2	5	2	31	88
RES35	2	3	4	2	2	2	2	2	2	2	23	53
RES36	5	4	4	3	3	3	4	2	4	4	36	60
RES37	4	4	4	4	4	2	4	3	4	4	37	58
RES38	5	3	5	2	5	2	5	2	5	2	36	85
RES39	4	2	5	2	4	2	5	5	5	2	36	75
RES40	4	4	4	4	4	3	3	4	4	4	38	50
RES41	4	3	4	3	5	2	4	2	4	4	35	68
RES42	4	2	4	4	4	2	4	2	4	2	32	70
RES43	5	4	4	4	4	4	4	2	4	2	37	63
RES44	5	2	5	2	5	2	5	2	5	2	35	88
RES45	4	4	4	4	4	2	4	2	4	2	34	65
RES46	4	4	5	4	4	3	4	2	4	4	38	60
RES47	4	2	3	1	5	2	4	2	4	2	29	78
RES48	4	2	4	2	1	2	4	1	4	2	26	70
RES49	5	2	3	2	5	1	1	1	1	2	23	68
RES50	4	2	4	2	4	2	4	2	4	2	30	75

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Sum	Point
RES51	4	1	1	1	3	2	5	3	4	2	26	70
RES52	4	2	4	2	4	2	2	2	4	2	28	70
											Sum	3644
											Average Score	70.077

The result of the usability test based on user experience obtained from 52 respondents show an average score of 70,077 with a value range between 48 to 90. The average score is above the international standard of SUS of 68, so based on the SUS interpretation scale, the score is in the Good category with Grade C. The category describes the acceptance rate in the average to good position. The average obtained from the results of the evaluation of the SUS assessment for the implementation of the SPEAKS model as seen in Figure 4.

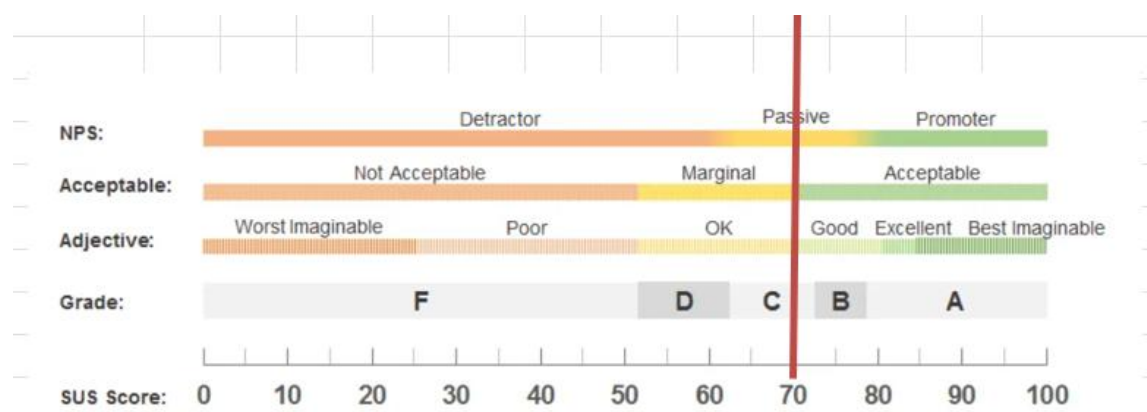


Figure 4. Results of the evaluation assessment of the implementation of SPEAKS

In terms of acceptance based on the results of the SUS evaluation assessment, the interpretation of the Net Promoter Score (NPS) is still in the passive category, meaning that users are satisfied but have not fully become active promoters who will recommend this application to others. Even though the system has met usability standards, further improvements are needed, especially in the user experience aspect, to encourage increased user loyalty.

In addition to obtaining quantitative data from the evaluation results, respondents provided qualitative data and suggestions for implementing the SPEAKS model. Most of the respondents provided positive suggestions and feedback and provided information on suggestions such as adding features, security, and integration with artificial intelligence, which were used to improve the performance of the SPEAKS model. The suggestions and inputs from respondents related to improving the performance of the SPEAKS model can be seen in Table 3.

The respondent information data was provided by 52 respondents who submitted comments and suggestions, with input from 15 of them. Most of the important inputs are geared toward the development of the SPEAKS model application. In addition, technical aspects, accessibility, security, and system stability are also the main concerns for respondents. In general, respondents' feedback on feature development, data security, and user experience creates opportunities for developing systems for victims of sexual violence.

3.6. Discussion

This study presents three important findings regarding the potential of the SPEAKS model to support digital reporting and case management in religious higher education institutions. First, the SPEAKS model provides a structured, accessible platform for submitting reports. These findings are consistent with research by Okonofua et al. (2024) in Nigeria, which shows that mobile phone technology can facilitate the reporting of gender-based violence cases through a digital system connected to health services and community organizations. In this context, the accessibility of technology becomes an important factor in helping to reduce reporting barriers, especially when victims have difficulty accessing reporting systems that are still manual and require direct interaction. Unlike the reporting system generally implemented in higher education institutions, the SPEAKS model was developed with the characteristics of religious higher education institutions in mind, which prioritize moral, ethical, and spiritual values as part of institutional governance (Sudirman et al., 2025). In this context, the reporting mechanism is not only oriented towards administrative

and legal resolution but also supports the creation of an academic environment that upholds human dignity, moral responsibility, justice, and the protection of victims. The implementation of a digital reporting system in higher education also faces various challenges, including victims' concerns about social stigma and the power relations between victims and perpetrators that can hinder victims' courage to report (Nursyifa et al., 2026; Potter et al., 2020). Therefore, the reporting mechanism in the SPEAKS model is designed with these challenges in mind by providing a documented reporting process, maintaining the reporter's identity confidentiality, and enabling transparent monitoring of case progress.

Table 3. Respondents' Suggestions and Feedback on the SPEAKS Model

Respondent	Suggestions and Feedback
Resp007	It is recommended to develop applications that can be accessed through the App Store and Play Store to expand the range of use and make it easier for users to access
Resp008	It's very good, but it's necessary to ensure the stability of the website so that it doesn't experience frequent downtime and keeps user data confidential
Resp011	It is necessary to develop a web visual model to be more attractive and modern, thereby increasing user appeal
Resp016	It is recommended to add color elements and develop further features to make the app more attractive
Resp017	Intuitive design, secure reporting, educational features, psychological support, data security, and effective user feedback are required
Resp025	We recommend adding a category of violence types to clarify the classification of cases
Resp026	It is recommended that there be a companion or AI chat feature to assist users in navigating and using the application
Resp027	The security of the app must be tightened to protect user data and privacy
Resp028	Improve safety for reporters and victims
Resp029	We recommend adding a file upload feature as evidence of violence
Resp030	The complainant who is a friend of the victim does not need to include a complete identity
Resp031	Applications need to be exposed more widely so that more students know
Resp034	Additional features related to sexual violence are needed
Resp036	There is a need for improvement in the input process after the submission of the report
Resp037	Reporters don't need an account, add an incident story column
Resp044	The app must be able to assist victims in maintaining their privacy

The success of SPEAKS implementation is also greatly influenced by the social and cultural conditions at religious campuses. As noted by Cheng et al. (2024) and Potter et al. (2020), the strategies implemented to prevent youth violence do not rely solely on systems or digitization but also emphasize changing social norms that still tolerate gender injustice. Furthermore, sexual violence in higher education is often considered a sensitive issue due to gender stigma and cultural norms, which can deter victims from reporting the incident (Nursyifa et al., 2026). The system's effectiveness must prioritize transparency, a key element, because it not only fosters openness but also builds trust and protects victims.

Secondly, the application flow of SPEAKS, which involves the identification of perpetrators, the classification of handling by task forces or the inspectorate general, and the involvement of law enforcement, shows that the developed system functions not only as a reporting medium but also as a structured case-handling mechanism. These findings align with the study by Hillert et al. (2024), which suggests that web-based technology can be an effective alternative as it can overcome various barriers in face-to-face services and provide more flexible access. The similarity indicates that the use of digital technology enables the development of more adaptive intervention systems, especially in handling cases that require quick responses and cannot always be reached through direct interaction. However, this research makes an additional contribution by showing that the system's effectiveness is determined not only by the technology's flexibility but also by how the system is designed to integrate the operational case-handling flow and supported by user experience.

In its implementation, the system structure is supported by various features designed to facilitate user interaction, such as chatrooms and Q&A, which directly simplify the reporting process and make it more accessible. The presence of these features indicates a transformation of the reporting mechanism from a manual procedure to a more user-friendly

digital system. This is reinforced by the results of usability evaluation tests, which show that the system provides ease of use as perceived by users. This ease of use increases user satisfaction, which in turn supports sustained system use (Ramadhan et al., 2022). The success of the digital system in preventing and addressing sexual violence in the higher education environment is highly determined by the active involvement of users through experience-centered design, which enhances users' sense of safety, trust, and loyalty toward the system (Baldwin- et al., 2022). The results of the usability test show that the performance of the services provided by the SPEAKS system to users in religious higher education is acceptable and that the system can be operated well.

Third, SPEAKS not only provides reporting stages but also offers follow-up actions, including legal prosecution, mediation, counseling, and medical services. This series of services demonstrates a protective and preventive function, strengthened through the utilization of technology that can be widely used in the handling and prevention of sexual violence. In line with this, Amadori & Brighi (2025) mention that digital literacy, particularly in the form of counseling, plays an important role in protecting victims while also preventing the recurrence of sexual violence, both in the digital space and physically. The SPEAKS model has been validated through a system test involving respondents, including privacy-oriented features to protect victim information during the reporting process. By providing a secure digital reporting space, universities are taking progressive steps to allow victims to convey information related to sexual violence (Baldwin- et al., 2022; Okonofua et al., 2024). This approach is particularly relevant for developing countries, which generally face reporting barriers due to social stigma, limited access to services, and strong power dynamics within institutional environments.

Symbolic violence arises due to the power dynamics present in the academic environment, which can create opportunities for sexual violence (Roumbanis, 2019). Based on Bourdieu's theory (1979), symbolic violence often goes unnoticed, but it can strengthen the perpetrator's power and make it difficult for the victim to speak out. The findings indicate that the SPEAKS model has the potential to support institutional efforts to address symbolic violence by providing a structured, transparent, and accountable reporting mechanism. Through a structured, transparent, and documented mechanism, the SPEAKS model has the potential to support institutional efforts to reduce reporting barriers influenced by symbolic violence and encourage the creation of a safer and more inclusive campus environment. Support from digital literacy and campus community solidarity further strengthens the system's role in fostering comprehensive awareness that reporting is an act of courage in the face of experienced sexual violence (Espelage et al., 2022; Roumbanis, 2019; Saffanah et al., 2024).

By placing several aspects, such as physical, social, and ideological, together, it simultaneously shows that the success of implementing the SPEAKS model is not just a technical issue but also a social and cultural one. This study demonstrates that the SPEAKS model is feasible to implement and supports a more structured, transparent, and user-friendly digital reporting process by integrating technology and institutional governance. Although it makes contributions, the study's limitations lie in its scope of sampling and implementation context, which remain confined to several religious higher education institutions. Hence, the generalization of the results to general universities still needs further examination. This study also focuses on evaluating usability and user experience without assessing psychosocial effectiveness, such as the direct impact on reporting behavior or victims' trust levels. The SPEAKS model still has limitations in integrating advanced features such as AI-detection-based data security, automated case-progress tracking systems, and online support. These limitations open opportunities for further research focusing on strengthening digital security systems, user behavior analysis, and the application of artificial intelligence to support faster and fairer decision-making. Further research is directed toward the development of the SPEAKS model, which integrates artificial intelligence technology, automating the case classification system to assist users in the reporting process. In addition, model testing needs to be expanded to non-religious higher education institutions and other organizations to assess the system's flexibility and scalability.

4. Conclusion

This study resulted in the development of the SPEAKS model as a digital reporting and case management framework designed to support the prevention and handling of sexual violence in religious higher education institutions. This model integrates digital reporting mechanisms, institutional governance encompassing verification and decision-making processes, victim protection, and case monitoring into a structured system. Initial validation through expert assessment and usability evaluation indicates that the SPEAKS model can be implemented with high effectiveness, efficiency, and user experience. These findings indicate that the usability of a digital reporting system is influenced not only by technological functionality but also by the integration of principles of victim protection, transparency, and institutional accountability into the system design.

Methodologically, this study demonstrates that the development of a model based on user needs and evaluated through usability testing can be used to assess the usability of a digital reporting system implementation. The SPEAKS model provides a foundation for developing a digital transformation for reporting and managing sexual violence cases in religious higher education institutions. However, this research is limited to initial validation of the model's implementation through usability and user experience evaluations, with implementation limited to a few religious higher education institutions. This study also failed to evaluate the impact of the model's implementation on changes in reporting behavior, victim trust levels, or the effectiveness of case handling at universities. Therefore, further research should compare the SPEAKS model with existing systems, test its application in a pilot study of the actual reporting process, and conduct a long-term study to assess the impact of implementing the SPEAKS model. Furthermore, further development could integrate artificial intelligence-based features, such as those to support automatic case classification, improve data security, and automate case monitoring. Model testing should also be expanded to non-religious higher education institutions and other organizations to assess the model's suitability to various institutional characteristics.

References

- Afrina, C., Masruri, A., Putra, R., Husna, A., & Rahman, Z. A. (2025). Developing a Leadership Style Model in Academic Library Management in the Digital Era. *IAS Journal of Localities*, 3(1), 78–94. <https://doi.org/https://doi.org/10.62033/iasjol.v3i1.87>
- Almanssori, S., Paskaran, L., & Mendes, K. (2025). Technology-facilitated sexual violence perpetration as a tool for gender policing in secondary schools. *Journal of Youth Studies*, 6261, 1–17. <https://doi.org/10.1080/13676261.2025.2531789>
- Amadori, A., & Brighi, A. (2025). Technology-facilitated sexual violence among sexual and gender minority youth: The moderating role of digital resilience. *Computers in Human Behavior*, 166(October 2024), 108576. <https://doi.org/10.1016/j.chb.2025.108576>
- Baldwin, A., Read, G., Beer, J., & Darville, G. (2022). Harnessing technology to prevent sexual assault on college campuses. *Journal of American College Health*, 71(4). <https://doi.org/10.1080/07448481.2021.1920605>
- Batool, A., Ali, F., & Ahmed, K. (2026). Character Development among Teenagers in Public and Private Educational Institutions in Pakistan: An Empirical Study. *Journal of Islamic Studies and Education*, 4(3), 129–145. <https://doi.org/10.63120/jise.v4i3.137>
- Belachew, A., & Midakso, B. (2023). Social Factors Affecting Religious Institutions in the Maintenance of Peace and Harmony in East Hararghe Zone: The Case of Selected Religious Institutions. *Cogent Social Sciences*, 9(1). <https://doi.org/10.1080/23311886.2023.2175765>
- Ben-zeev, D., Agorinya, J., Beaulieu, A., Quame, E., Larsen, A., Abra, D., Bedard-gilligan, M., Ohene, S., Collins, P. Y., Lindgren, K. P., Ofori-atta, A., Kaysen, D., & Obeng, K. (2025). Sexual trauma and interest in mobile health among women with mental illness in Ghana. *Internet Interventions*, 40(October 2024), 100829. <https://doi.org/10.1016/j.invent.2025.100829>
- Bondestam, F., & Lundqvist, M. (2020). Sexual harassment in higher education—a systematic review. *European Journal of Higher Education*, 10(4), 397–419. <https://doi.org/10.1080/21568235.2020.1729833>
- Bourdieu, P. (1979). Critique of Anthropology. *Critique of Anthropology*, 4(77). <https://doi.org/10.1177/0308275X7900401307>
- Branch, Ar. M. (2009). *Intructional Design: The ADDIE*. Springer.
- Burn, S. M. (2019). The Psychology of Sexual Harassment. *Teaching of Psychology*. <https://doi.org/10.1177/0098628318816183>
- Cheng, D., Does, S., Gündemir, S., & Shih, M. (2024). How Organizational Responses to Sexual Harassment Claims Shape Public Perception. *Basic and Applied Social Psychology*, 46(3), 169–186. <https://doi.org/10.1080/01973533.2024.2313536>
- Drejer, C., Riegler, M. A., Halvorsen, P., Johnson, M. S., & Baugerud, G. A. (2024). Livestreaming Technology and Online Child Sexual Exploitation and Abuse: A Scoping Review. *Trauma, Violence, and Abuse*. <https://doi.org/10.1177/15248380221147564>

- Esayas, H. L., Gameda, H., Melese, T., Birgoda, G. T., Terefe, B., Abebe, S., Bekele, M., Wolde, F., & Birie, B. (2023). Sexual violence and risk factors among night shift female college students in Hawassa city, South Ethiopia, 2020. *BMC Women's Health*. <https://doi.org/10.1186/s12905-022-02150-w>
- Espelage, D. L., Liu, G. S., Valido, A., Kuehl, T., Basile, K. C., & Nickodem, K. (2022). Violence perpetration prevalence among Colorado (United States) high school students across gender , racial / ethnic , and sexual identities. *Preventive Medicine*, 161(December 2021), 107146. <https://doi.org/10.1016/j.ypmed.2022.107146>
- Ferreira, J. M., Acuña, S. T., Dieste, O., Vegas, S., Santos, A., Rodríguez, F., & Juristo, N. (2020). Impact of usability mechanisms: An experiment on efficiency, effectiveness and user satisfaction. *Information and Software Technology*, 117(November 2018), 106195. <https://doi.org/10.1016/j.infsof.2019.106195>
- Georgsson, M., & Staggers, N. (2016). Quantifying usability: an evaluation of a diabetes mHealth system on effectiveness, efficiency, and satisfaction metrics with associated user characteristics. *Journal of the American Medical Informatics Association*, 23(1), 5–11. <https://doi.org/10.1093/jamia/ocv099>
- Harahap, A. P., Amir, S. M., Rahmi, T., Yusuf, M. F., & Silalahi, J. (2025). Understanding the Hadith on Perfume: An Effort to Prevent Sexual Harassment and Protect Women. *Buana Gender: Jurnal Studi Gender Dan Anak*, 10(1), 1–16. <https://doi.org/10.22515/bg.v10i1.10133>
- Hertzum, M. (2026). System Usability Scale: A Meta-Analysis of How SUS Relates to Workload, Task Time, and Error Rate. *International Journal of Human–Computer Interaction*, 0(0), 1–14. <https://doi.org/10.1080/10447318.2026.2625260>
- Hidayah, R. (2021). Students' self-adjustment, self-control, and morality. *Journal of Social Studies Education Research*.
- Hillert, J., Haubrock, L. S., Dekker, A., & Briken, P. (2024). Web-Based Initiatives to Prevent Sexual Offense Perpetration: A Systematic Review. *Current Psychiatry Reports*, 26(4), 121–133. <https://doi.org/10.1007/s11920-024-01489-1>
- Imania, K., & Santoso, A. D. (2024). Policy Transfer for Sexual Violence Prevention and Management in Indonesian Higher Education Institutions Transferencia de Políticas para la Prevención y Gestión de la Violencia Sexual en las Instituciones de Educación Superior de Indonesia. *GENEROS. Multidisciplinary Journal of Gender Studies*, 13(2), 137–155. <https://doi.org/https://hipatiapress.com/hpjournals/index.php/generos/article/view/12738>
- Jewkes, R., Mhlongo, S., Chirwa, E., Seedat, S., Myers, B., Peer, N., Garcia-Moreno, C., Dunkle, K., & Abrahams, N. (2022). Pathways to and factors associated with rape stigma experienced by rape survivors in South Africa: Analysis of baseline data from a rape cohort. *Clinical Psychology and Psychotherapy*. <https://doi.org/10.1002/cpp.2637>
- Jogezai, N. A., Baloch, F. A., Jaffar, M., Shah, T., Khilji, G. K., & Bashir, S. (2021). Teachers' attitudes towards social media (SM) use in online learning amid the COVID-19 pandemic: the effects of SM use by teachers and religious scholars during physical distancing. *Heliyon*. <https://doi.org/10.1016/j.heliyon.2021.e06781>
- Maghin, F., Campagnari, M., Ricca, G., & Conti, A. (2022). Sexual Violence: 10 Years of Case Studies in a Hospital in Northern Italy. *Journal of Public Health Research*, 11(1). <https://doi.org/10.4081/jphr.2021.2564>
- Mazza, M., Marano, G., Lai, C., Janiri, L., & Sani, G. (2020). Danger in danger: Interpersonal violence during COVID-19 quarantine. *Psychiatry Research*, 289, 113046. <https://doi.org/10.1016/j.psychres.2020.113046>
- Melani, M., Sutedja, E., Irianti, S., Herawati, D. M. D., & Pramartirta, A. Y. (2025). Development of a website-based E-module for midwifery care for neonates, infants, and toddlers: A mixed-method study. *Social Sciences and Humanities Open*, 12(July), 101993. <https://doi.org/10.1016/j.ssaho.2025.101993>
- Moss, C., Smith, S. J., Kim, K., Hua, N., Noronha, N., Kavenagh, M., & Wekerle, C. (2023). A global systematic scoping review of literature on the sexual exploitation of boys. *Child Abuse and Neglect*. <https://doi.org/10.1016/j.chiabu.2023.106244>
- Mudzakkir, M., Chariro, N., Ilham, Y., & Mubaroka, K. U. (2024). The Role of Higher Education Institutions in The Prevention and Handling of Sexual Violence to Support the Achievement of SDGs : A Case Study of Two Public Universities in Indonesia. *Proceedings of the 4th International Conference on Social Sciences and Law, Icssl*. <https://doi.org/10.2991/978-2-38476-303-0>

- Mzilangwe, E. S., Chande Mallya, R., Lindkvist, M., Kaaya, S., & Nkulu Kalengayi, F. K. (2024). Sexual violence victimisation and response among university students in sub-Saharan Africa: A scoping review protocol. *BMJ Open*, 14(1), 14–17. <https://doi.org/10.1136/bmjopen-2023-076015>
- Nazula, D., Anggraeni, D. D. A., & Nafiah, A. Z. (2024). Strategic Leadership in Developing a Culture of Literacy: A Case Study at SDIT Qurrota A'yun Ponorogo. *IAS Journal of Localities*, 2(1), 82–95. <https://doi.org/10.62033/iasjol.v2i1.46>
- Nursyifa, A., Gumilar Rusliwa Somantri, & Francisia Saveria Sika Ery Seda. (2026). The dilemma of a safe campus: Challenges in preventing and dealing with sexual violence in Indonesian universities. *Jurnal Cakrawala Pendidikan*, 45(1), 71–83. <https://doi.org/10.21831/cp.v45i1.85752>
- Okonofua, F., Adelekan, B., Goldson, E., Abubakar, Z., Mueller, U., Alayande, A., Ojogun, T., Ntoimo, L., Sanyaolu, O., Omokaro, J., Onoh, V., Williams, B., Muhammed, I., Adeniran, J., Anakhuekha, E., Udenigwe, O., & Yaya, S. (2024). Applying Mobile Technology to Address Gender-Based Violence in Rural Nigeria: Experiences and Perceptions of Users and Stakeholders. *Health Systems and Reform*, 10(2). <https://doi.org/10.1080/23288604.2024.2389569>
- Potter, S. J., Moschella, E. A., Smith, D., & Draper, N. (2020). Exploring the Usage of a Violence Prevention and Response App Among Community College Students. *Health Education and Behavior*, 47(1_suppl), 44S-53S. <https://doi.org/10.1177/1090198120910995>
- Ramadhan, A., Hidayanto, A. N., Salsabila, G. A., Wulandari, I., Jaury, J. A., & Anjani, N. N. (2022). The effect of usability on the intention to use the e - learning system in a sustainable way : A case study at Universitas. In *Education and Information Technologies*. Springer US. <https://doi.org/10.1007/s10639-021-10613-0>
- Roche, S., Otarra, C., Fell, I., Belle Torres, C., & Rees, S. (2023). Online sexual exploitation of children in the Philippines: A scoping review. *Children and Youth Services Review*. <https://doi.org/10.1016/j.childyouth.2023.106861>
- Roumbanis, L. (2019). Symbolic Violence in Academic Life : A Study on How Junior Scholars are Educated in the Art of Getting. *Minerva*, 57(2), 197–218. <https://doi.org/10.1007/s11024-018-9364-2>
- Saffanah, T., Rasito, R., Putra, D. I. A., & Yuliatin, Y. (2024). Strengthening Law Enforcement and Public Awareness to Combat Human Trafficking in Indonesia: Challenges and Solutions. *Al-Ahkam: Jurnal Ilmu Syari'ah Dan Hukum*, 9(2), 91–112. <https://doi.org/10.22515/alakhkam.v9i2.9686>
- Saputra, Y., & Saputra, R. F. (2026). Independent Women or Family Crisis? Re-reading Qur'an 4:32 to Rethink Women's Independence as a Foundation of Muslim Family Resilience. *Journal of Islamic Studies and Education*, 4(2), 79–90. <https://doi.org/10.63120/jise.v4i2.130>
- Sudirman, S., Ramadhita, R., Bachri, S., & Whindari, Y. (2025). The transformation of state islamic higher education institutions into World-Class University: From globalisation to institutional values. *Social Sciences & Humanities Open*, 12(January), 101705. <https://doi.org/10.1016/j.ssaho.2025.101705>
- Ubaidillah, K., Giyoto, & Purnomo, S. F. L. A. (2023). Implementing Early Sexual Education as a Preventive Measure against Sexual Harassment in Children. *Buana Gender: Jurnal Studi Gender Dan Anak*, 8(2), 1–9. <https://doi.org/10.22515/bg.v8i2.8438>
- Ummah, A. H. (2026). The Construction of Popular Islamic Media Narratives on The Issues of Sexual Violence in Indonesia. *DINIKA : Academic Journal of Islamic Studies*, 11(1), 1–18. <https://doi.org/10.22515/dinika.v11i1.11401>
- Vlachogianni, P., & Tselios, N. (2022). Perceived usability evaluation of educational technology using the System Usability Scale (SUS): A systematic review. *Journal of Research on Technology in Education*, 54(3), 392–409. <https://doi.org/10.1080/15391523.2020.1867938>
- Whitaker, D. J., Trang, Q. T., Macauley, M., Mihn, T. H., Fang, X., & Yount, K. (2025). Knowledge, attitudes, and beliefs about sexual violence and prevention programming implementation: Survey of faculty at seven universities in Vietnam. *AJPM Focus*, 100449. <https://doi.org/10.1016/j.focus.2025.100449>
- Wood, L., Hoefer, S., Kammer-Kerwick, M., Parra-Cardona, J. R., & Busch-Armendariz, N. (2021). Sexual Harassment at Institutions of Higher Education: Prevalence, Risk, and Extent. *Journal of Interpersonal Violence*, 36(9–10),

4520–4544. <https://doi.org/10.1177/0886260518791228>

Zagloul, N. M., Farghaly, R. M., ELKhatib, H., Issa, S. Y., & El-Zoghby, S. M. (2022). Technology facilitated sexual violence: a comparative study between working and non-working females in Egypt before and during the COVID-19 pandemic. *Egyptian Journal of Forensic Sciences*, 12(1), 21. <https://doi.org/10.1186/s41935-022-00278-2>