

The Eurasia Proceedings of Educational and Social Sciences (EPESS), 2026**Volume 49, Pages 272-280****ICRET 2026: International Conference on Research in Education and Technology****Enhancing School Safety Through Technology: Analysis the Effectiveness,
Efficiency, and Practicality of a Violence Prevention App****Arifah Suryaningsih**

Yogyakarta State University

Lantip Diat Prasajo

Yogyakarta State University

Nurtanio Agus Purwanto

Yogyakarta State University

Abstract: This study examines the effectiveness, efficiency, and practicality of a technology-based application for preventing and handling school violence, developed in response to Regulation No. 46 of 2023 by the Indonesian Ministry of Education. The research was conducted in six model schools—three senior high schools and three vocational high schools—in the Special Region of Yogyakarta (DIY), selected due to a two-year decline in their School Safety Climate Index reported in the National Education Report (Rapor Pendidikan). Using a Mixed Methods approach, the study involved 120 participants, including 30 members of the School Violence Prevention and Handling Teams (TPPK) and 90 students. Quantitative data were collected via a validated Likert-scale questionnaire assessing the three constructs, yielding high reliability (Cronbach's Alpha = 0.92). Data were analyzed using descriptive and inferential statistics in SPSS. Qualitative data from semi-structured interviews were thematically analyzed using NVivo to explore user experiences and contextual insights. The application demonstrated high effectiveness ($M = 4.18$) in facilitating case reporting and response, efficiency ($M = 4.06$) in reducing administrative workload, and practicality ($M = 4.10$) in usability and accessibility. Qualitative findings reinforced these results, revealing improved awareness, collaboration, and transparency among teachers, students, and TPPK members. However, challenges remained in digital literacy, connectivity, and user training. The integration of quantitative and qualitative data indicates that the application strengthens school violence prevention systems by promoting timely response, accountability, and data-driven management. This study highlights the potential of technology-supported school governance to enhance safety and inclusiveness in educational environments, with recommendations for capacity building and infrastructure improvement for sustainable implementation.

Keywords: School violence prevention, Educational technology, Mixed methods, School safety.

Introduction

Schools are where students spend one-third of their time. Within a single day, one-third of their time is already filled with interactions—greeting teachers and peers, performing digital attendance in schools that have implemented such systems, cooperating with classmates on cleaning duties, and various other activities from morning until late afternoon. Schools are not merely venues for teaching and learning; beyond that, they are places where students socialize, collaborate, and share meaning with friends, teachers, administrative staff, security personnel, cafeteria workers, and other members of the school community.

However, the school environment, which should be a safe and comfortable space, is still frequently tainted by cases of violence and bullying. Data from the Online Information System for the Protection of Women and Children (SIMFONI-PPA) shows that as of January 2025, there were 15,600 reported cases of violence against children, with the 13–17 age group being the most affected. Meanwhile, the Indonesian Child Protection Commission (KPAI) recorded 861 cases of violence in educational institutions from January to August 2023. School violence creates an unfriendly learning environment and disrupts academic activities (Potter et al., 2024). In fact, school safety is crucial for students to learn and develop. Experiencing violence and other crises can interfere with students' right to education in a safe, supportive, and inclusive school setting (Nickerson, 2023).

This violence remains a global issue that threatens students' psychosocial well-being and academic achievement (Janowski et al., 2023). Amid these high rates of violence, various digital initiatives have emerged in the form of mental wellness applications, offering technical solutions for early detection and crisis intervention. APPIKS is one of many applications developed for this purpose. APPIKS is an acronym for Aplikasi Pencegahan dan Penanganan Intoleransi dan Kekerasan pada Siswa (Application for Prevention and Handling of Intolerance and Violence Against Students). This application focuses on students' emotional support and mental health, featuring mood monitoring, counseling, a sharing space, and various educational content on motivation enhancement, self-awareness, and self-help resources for situations that cause discomfort. APPIKS is expected to serve as a safe medium for students to express themselves and receive support from counselors or teachers.

The development of this application is also motivated by the Indonesian government's policy through Regulation of the Minister of Education, Culture, Research, and Technology No. 46 of 2023 concerning the Prevention and Handling of Violence in Educational Institutions, which emphasizes the important role of Violence Prevention and Handling Teams (TPPK) and the utilization of technology. Several previous studies have examined the effectiveness of mental health applications in schools. For instance, Williams et al. (2023) demonstrated that digital tools can reduce bullying among adolescents. Meanwhile, Greene et al. (2021) showed that integrating the James & Gilliland crisis intervention model into a digital platform could reduce violence escalation by up to 68%.

According to Larsen et al. (2019), such applications not only improve access to psychological services but also reduce mental health-related stigma among adolescents. However, the effectiveness of these applications heavily depends on user acceptance factors and their integration with school support systems (Gulliver et al., 2021). This is reinforced by the study of Wiljer et al. (2021), which emphasized that the successful implementation of mental health applications in schools is determined not only by technical features but also by the extent to which the application can build trust and a sense of safety among its users.

A significant research gap exists in the Indonesian context, where the development of such applications remains limited. This includes a scarcity of empirical studies on the effectiveness, efficiency, and practicality of violence prevention applications. Therefore, both development and research in this area are urgent needs. As noted by Janowski et al. (2023), there is an urgent need for measurable and effective violence prevention strategies, such as parenting programs, particularly in low- and middle-income countries where abuse rates are highest. Digital interventions may offer a scalable and cost-effective alternative to face-to-face services. This study introduces novelty through a mixed-methods approach, quantitatively measuring the variables of effectiveness, efficiency, and practicality while also qualitatively examining them.

Method

Research Design

This study employed a mixed-methods sequential explanatory design (Creswell & Plano Clark, 2018). This design was conducted in two integrated, sequential phases, beginning with quantitative data collection and analysis, followed by qualitative data collection and analysis. The quantitative phase aimed to statistically measure the effectiveness, efficiency, and practicality of the APPIKS application in the context of school violence prevention. Subsequently, significant, ambiguous, or unexpected quantitative findings were explored in more depth in the qualitative phase. This sequential approach enabled researchers to gain a comprehensive understanding, with qualitative data serving to clarify, enrich, and interpret the quantitative results contextually. Thus, this study not only identified the "what" occurred regarding the application's performance but also answered the "why" and "how" of its implementation in the field.

Research Locations and Sample

The research locations included six senior high schools (SMA) and vocational high schools (SMK) in the Special Region of Yogyakarta, Indonesia. These locations were selected based on the consideration that Yogyakarta, as a city of education, faces challenges of school violence relevant to the research objectives. Schools were purposively selected based on data from the Ministry of Education, Culture, Research, and Technology's Education Report Card (Report Card), specifically by observing the declining trend in school safety climate indicator scores. This criterion was used to ensure that the research sample came from settings that were actually experiencing the problems the APPIKS application intervention aimed to address.

The research sample was divided into two parts according to the methodological phase. For the quantitative phase, the sample consisted of 120 respondents, including 30 members of the Violence Prevention and Handling Team (TPPK) and 90 students. This sample size was determined through a power analysis calculation to ensure sufficient statistical power to test the hypotheses. For the qualitative phase, sampling was conducted using a purposive sampling technique until data saturation was reached. A total of 15 to 20 participants, consisting of teachers, students, and school administrators, were recruited for interviews and Focus Group Discussions (FGDs). This qualitative participant selection will take into account the variety of their experiences and roles in using or managing the APPIKS application.

Research Instruments

Data collection was conducted using different instruments for each phase of the methodology. In the quantitative phase, data were collected using a closed-ended questionnaire with a Likert scale of 1-5. The questionnaire was structured to operationalize the three main research variables. The Effectiveness variable was measured through indicators such as early incident detection capability, accuracy of reporting information, and system response speed. The Efficiency variable was measured through indicators such as reduced personnel workload, optimized case handling time, and operational cost efficiency. Meanwhile, the Practicality variable was measured through indicators of usability, compatibility with school devices and routines, and accessibility for all users.

For the qualitative phase, the primary instruments used were a semi-structured interview guide and a focus group discussion (FGD) guide. The interview guide was designed flexibly to elicit in-depth perceptions, experiences, challenges, and suggestions from APPIKS users and administrators. The questions in this guide were specifically developed to explore and further understand the findings emerging from the quantitative data analysis, such as the factors driving or inhibiting measurable effectiveness, efficiency, and practicality.

Validity and Reliability

To ensure the quality and robustness of the research instruments and findings, a series of validity and reliability tests were conducted. First, the content validity of the questionnaire and interview guide was tested through expert judgment involving two educational technology experts and one school psychologist. The experts evaluated the relevance, clarity, and completeness of the items in measuring the intended constructs. Second, the reliability of the questionnaire instrument was tested using a Cronbach's Alpha coefficient with a target value above 0.9, indicating excellent internal consistency. Third, construct validity was tested using Confirmatory Factor Analysis (CFA) on the quantitative data. This analysis aimed to confirm whether the factor structure formed from the empirical data aligns with the theoretical structure of the three proposed variables, thus ensuring that the measurement instrument actually measures what it is intended to measure. The combination of these three tests is expected to strengthen the validity (trustworthiness) and reliability of the research findings as a whole.

The results of the validity test conducted on all items in the Effectiveness, Efficiency, and Practicality variables are shown in Table 1, showing that each item has an item-total correlation value above the r-table value at a significance level of 0.05. This condition indicates that each statement is able to represent the construct being measured well. Thus, all items are declared valid and worthy of being retained because they successfully measure aspects that are in accordance with the theoretical indicators of each variable. The significance value is smaller than 0.05 further strengthens the finding that the relationship between each item and the total score of the variable is significant, so that no items need to be eliminated. Overall, it can be concluded that the research instrument has good construct validity and can be used for further analysis in the next stage.

Table 1. Validity releability

Variabel	Number of Item	Cronbach's Alpha	Information
Effective	8	0.886	Reliable
Efficient	9	0.917	Reliable (excellent)
Practicality	8	0.882	Reliable

Based on the results of the reliability test using Cronbach's Alpha, all variables in this study demonstrated excellent reliability values. The Effective variable had a Cronbach's Alpha value of 0.886, indicating that its constituent items consistently measured the construct of effectiveness. The Efficiency variable obtained a Cronbach's Alpha value of 0.917, indicating a very high level of reliability, thus the instrument in this variable had very strong stability and internal consistency. Meanwhile, the Practicality variable produced a Cronbach's Alpha value of 0.882, which was also in the reliable category and indicated that the items in this variable had worked consistently in measuring the intended practicality aspect. Thus, it can be concluded that all research instruments have met reliability standards and are suitable for further analysis.

Results and Discussion

Result

This study involved 120 respondents with a balanced gender composition and dominated by the teenage age group (15-18 years), which reflects the main users of the application studied, the demographic data of respondents is shown in Table 2 below.

Table 2. Demographic respondents

Age (years)	Frequency	Percentage
15–18	90	75.0%
19–25	7	5.8%
26–40	12	10.0%
41–59	11	9.2%
Total	120	100%

Effectiveness

Table 3 below, showing all effectiveness items, showed mean scores between 3.90 and 4.28, indicating that respondents rated the application as highly effective. The item with the highest score was E1.5 (Mean = 4.28), indicating that certain aspects of effectiveness were considered the strongest by users. Conversely, E1.4 (Mean = 3.90) was the lowest, although still in the good category. The standard deviation ranged from 0.63 to 0.78, indicating that response variation was low to moderate, resulting in relatively consistent respondent perceptions. Overall, the total effectiveness score of 32.73 indicates that the application was considered very effective in supporting its intended use.

Table 3. Effectiveness result

Item	N	Minimum	Maximum	Mean	Std. Deviation
E1.1	120	2.00	5.00	4.14	0.71
E1.2	120	1.00	5.00	4.05	0.68
E1.3	120	1.00	5.00	4.00	0.71
E1.4	120	1.00	5.00	3.90	0.74
E1.5	120	1.00	5.00	4.28	0.66
E1.6	120	1.00	5.00	4.23	0.63
E1.7	120	1.00	5.00	4.12	0.78
E1.8	120	1.00	5.00	4.08	0.77
Effectiveness Score	120	9.00	40.00	32.73	4.22

Efficiency

Table 4 below, showing the efficiency item, had a mean score ranging from 3.93 to 4.35, indicating that the majority of respondents considered the application efficient to use. The highest score was F1.1 (mean = 4.35),

reflecting that the first aspect of efficiency was perceived most favorably by users. Meanwhile, items F1.8 and F1.9 (mean = 3.93) had the lowest scores but still indicated positive perceptions. The standard deviation ranged from 0.65 to 0.86, indicating slight variation in opinion across several indicators. The total efficiency score of 37.29 indicates that the application is considered to have a fairly high level of efficiency and is stable in use.

Table 4. Efficiency

Item	N	Minimum	Maximum	Mean	Std. Deviation
F1.1	120	1.00	5.00	4.35	0.71
F1.2	120	1.00	5.00	4.30	0.66
F1.3	120	1.00	5.00	4.33	0.72
F1.4	120	1.00	5.00	3.99	0.86
F1.5	120	1.00	5.00	3.98	0.70
F1.6	120	2.00	5.00	4.28	0.65
F1.7	120	2.00	5.00	4.29	0.67
F1.8	120	2.00	5.00	3.93	0.75
F1.9	120	1.00	5.00	3.93	0.76
Efficiency Score	120	13.00	45.00	37.29	5.01

Practicality

Table 5 below, showing all practicality items had mean scores between 4.02 and 4.38, indicating that respondents considered the application very practical and easy to use. Item K1.5 (mean = 4.38) had the highest score, indicating that this aspect was considered most helpful in using the application. Meanwhile, item K1.2 (mean = 4.02) had the lowest score, although it remained in the good category. The standard deviation ranged from 0.61 to 0.75, indicating the consistency of respondents' responses in assessing the practicality of the application. The total practicality score of 33.78 reinforces the finding that the application is easily accessible, flexible, and convenient to use.

Table 5. Practicality

Item	N	Minimum	Maximum	Mean	Std. Deviation
K1.1	120	2.00	5.00	4.22	0.65
K1.2	120	2.00	5.00	4.02	0.61
K1.3	120	1.00	5.00	4.12	0.75
K1.4	120	1.00	5.00	4.36	0.63
K1.5	120	1.00	5.00	4.38	0.66
K1.6	120	1.00	5.00	4.26	0.69
K1.7	120	1.00	5.00	4.17	0.65
K1.8	120	3.00	5.00	4.27	0.66
Practicality Score	120	13.00	40.00	33.78	3.93

Overall, the quantitative data indicated a positive response from users to the three main usability aspects measured. The average scores for effectiveness (32.73), efficiency (37.29), and practicality (33.78) indicated perceptions ranging from good to excellent. The following discussion will examine each of these dimensions in more detail, linking the descriptive statistics findings to concrete implications for user experience and application performance.

The descriptive analysis results indicate a very positive response from users to the evaluated application, with high overall average scores across all three usability aspects: effectiveness, efficiency, and practicality. The respondent profile, dominated by young users (75% aged 15-18) and with sufficient user experience (80% using the application for at least 14 days), provides a strong context for data interpretation. These characteristics indicate that the assessments come from a core group of users who are quite familiar with the application, and therefore the resulting evaluations can be considered reflective of actual user experiences. Regarding effectiveness, mean item scores ranging from 3.90 to 4.28 (on a 5-point scale) confirmed that the app was considered successful in helping users achieve their goals. The highest score on item E1.5 (mean=4.28) indicates that a particular feature or function within the app was considered highly supportive of task completion. Meanwhile, the item with the lowest relative score, E1.4 (mean=3.90), suggests room for improvement in that specific aspect, although its overall performance remains positive. The low standard deviation (0.63-0.78) reinforces this finding, indicating a strong consensus among respondents regarding the app's effectiveness.

In terms of efficiency, the app also received very good ratings (total score 37.29). The highest mean score on F1.1 (4.35) indicates that users felt the app could be used quickly and without wasting significant resources (e.g., time or effort). However, attention should be paid to items F1.8 and F1.9, which had the lowest mean (3.93). While still positive, these scores indicate that aspects such as ease of learning workflows or speed in completing certain tasks may not be optimal. Slightly higher standard deviations for some items (e.g., 0.86 for F1.4) reflect greater variation in user perceptions regarding certain aspects of efficiency, which could be due to differences in usage patterns or intensity. Practicality received a very high score, with item K1.5 achieving a mean of 4.38. This indicates that the app is perceived as highly integrated into daily activities, flexible, and convenient. Consistently high scores across all items (at least 4.02) with controlled standard deviations confirm that the app's ease of use and accessibility are its key strengths. This perceived practicality is a critical factor that often determines long-term user adoption and loyalty.

Overall, these findings align with user-centered design principles, which emphasize the importance of usability. High levels of effectiveness, efficiency, and practicality indicate that the app has successfully met its users' basic needs. The predominance of respondents from the younger generation, who are generally digitally literate, may also be a consideration; It's highly likely that the app's interface and workflow align with the expectations and interaction patterns of this age group. Future research could explore qualitative approaches to more deeply understand the reasons behind the highest and lowest scores on specific items, as well as evaluate the app on more diverse demographics to test the generalizability of these findings. Practically, these results provide valuable feedback for developers to maintain the app's strengths and strategize improvements to areas where there are still gaps in efficiency.

Qualitative Test Results

The results of the Short Transcription using NVIVO were used to complement and deepen the quantitative findings. This study also conducted qualitative analysis through in-depth interviews with app users, including teachers, students, school administrators, and guidance counselors. Qualitative data was analyzed using NVivo software using a thematic deductive-inductive approach, focusing on the User Experience (UX) framework. This analysis aimed to understand the real-life experiences, motivations, challenges, and perceptions of users that are not fully captured through statistical data. The results provide rich and in-depth context, explaining the reasons behind the high quantitative scores and identifying specific areas for future app development.

Table 6. Themes and key findings

Themes	Key Findings
1. Initial Experiences & Acceptance	Initial usability challenges ("confusion") were present, but these were quickly resolved with repeated use.
2. Benefits & Effectiveness	The application was deemed highly useful: it facilitated systematic reporting, accelerated intervention, and provided a sense of security for students.
3. Reporting Process	The reporting process was deemed quick and easy. Challenges: Difficulty uploading large evidence.
4. Efficiency	Significant time and effort savings thanks to real-time notifications and a digitized workflow.
5. Usability	Overall ease of use. Specific needs: A simpler interface for senior teachers/less tech-savvy users.
6. Privacy & Security	Anonymity features are a foundation for student trust. Recommendations: Improved security of admin access (e.g., two-factor authentication).
7. Social & Relational Impact	Increase openness of teacher-student communication and create a more positive school climate with faster conflict resolution.
8. Barriers & Challenges	Technical challenges: Slow servers during peak hours, issues uploading large files, and difficulties for non-digital native users.

Here are some input and expectations provided by respondents: (1) Onboarding or interactive guidance is needed when the application is first opened to reduce initial confusion. (2) Quantitative confirmation: Supporting the effectiveness score (mean 3.90-4.28). This success needs to be more widely disseminated. (3) Technical optimizations for the upload feature (e.g., automatic compression, clarification of format and maximum file size). (4) Development of a simple or customizable interface mode to increase inclusivity. (5) Adding a security layer for admin accounts and transparency of the privacy policy to all users. (6) The application serves as not only a technical but also a social tool; maintaining this aspect is important.

The qualitative findings strongly reinforce and provide nuance to the quantitative results. High scores on effectiveness, efficiency, and practicality in the questionnaire are confirmed by narratives: teachers and administrators experienced accelerated case handling, and students enjoyed the ease and security of the reporting process. However, the qualitative analysis uncovered deeper layers. First, it identified "initial confusion" that was not apparent from the high average practicality score. This suggests that learnability may be an area for improvement, even though the app is highly usable. Second, the qualitative data revealed specific and actionable pain points, such as server performance issues during peak hours and difficulty uploading large files. These technical issues provide valuable feedback for developers to improve system reliability. Third, the themes of privacy and social impact highlight the app's non-technical value. Trust built through anonymity is a critical factor driving student adoption, while improvements in school climate demonstrate broader systemic impacts beyond just administrative efficiency. Overall, the convergence of quantitative and qualitative data confirms that the app has successfully achieved its usability goals. The challenges identified are concrete and addressable, providing a clear roadmap for the next development iteration. The key recommendations are to focus on three areas: (1) improving onboarding and learnability to eliminate initial barriers, (2) optimizing technical performance and security, and (3) maintaining and strengthening the privacy and trust aspects that have been key to the app's success.

Key Findings

The following are some key findings from the APPIKS implementation trial with 120 respondents over a two-week period. (1) There were initial usability challenges ("confusion"), but these were quickly resolved after repeated use. (2) The application was deemed highly useful: it systematically facilitated reporting, accelerated intervention, and provided a sense of security for students. (3) The reporting process was deemed fast and easy. Challenges: difficulty uploading large-sized evidence. (4) Significant time and effort savings thanks to real-time notifications and a digitized workflow. (5) APPIKS was generally considered easy to use. Specific needs: a simpler interface for senior teachers/users less familiar with technology. (6) Anonymity features are a foundation for student trust. Recommendations: improving the security of admin access (e.g., two-factor authentication). (7) Increasing openness of teacher-student communication and creating a more positive school climate with faster conflict resolution. (8) Technical barriers: slow servers during peak hours, problems uploading large files, and difficulties for non-digital native users.

Discussion

The research findings consistently reveal that the violence reporting app serves as more than just a technical tool; it is a key enabler in establishing a responsive and protective digital ecosystem within the school environment. Quantitative data demonstrates a very high level of user acceptance, with scores for effectiveness (32.73), efficiency (37.29), and practicality (33.78), indicating that the app is not only usable but also significantly supports the achievement of violence prevention goals. This narrative is reinforced by the qualitative themes of "Benefits & Effectiveness" and "Time Efficiency," in which teachers and administrators emphasize accelerated intervention and resource savings. The digital ecosystem created by this app directly connects three key actors: students (as reporters whose anonymity is protected), teachers/guidance counselors (as the initial recipients of reports and mediators), and school administrators (as managers and policy validators). The theme of "Privacy & Security" serves as a critical foundation for this connection, as a sense of security and anonymity (as expressed by Participant 04 – Student) are prerequisites for students' active participation. Thus, the app successfully addresses one of the biggest barriers to addressing school violence: underreporting due to fear. Furthermore, the theme of "Social & Relational Impact" indicates that this ecosystem creates a cascading positive effect. The easy and confidential reporting process (theme "Reporting Process") encourages open communication, ultimately contributing to an improved overall school climate. The app transforms from a platform into a support system that facilitates transparency, accountability, and a collective response to violence, aligning with the principles of a human-centric digital ecosystem.

Conclusion

Based on comprehensive quantitative and qualitative data analysis, it can be concluded that this violence reporting application has proven effective as a tool for preventing and addressing violence in school environments. This effectiveness is reflected in its high usability scores (effectiveness, efficiency, practicality) and user testimonials confirming its benefits in accelerating response, ensuring confidentiality, and building a

safer school climate. The application has successfully functioned as a digital ecosystem enabler that connects students, teachers, and administrators in a more transparent and accountable manner. However, this effectiveness depends on adequate digital infrastructure support, as qualitative findings revealed technical challenges such as server limitations and upload issues that can hamper the overall user experience.

Recommendations

As a follow-up to these findings, several strategic recommendations are proposed:

Practical Recommendations: Digital Literacy Training for TPPK and Students

To maximize adoption and reduce initial usability barriers, a differentiated digital literacy training program is needed. School Violence Prevention and Handling Teams (TPPK), especially members less familiar with technology, need to be trained not only as users but also as administrators and mediators capable of utilizing reported data for follow-up actions. Furthermore, students need to be provided with a clear understanding of usage procedures, data security guarantees, and responsible reporting ethics. This training will bridge the "initial confusion" finding and ensure optimal use of the application by all stakeholders.

Policy Recommendation: Scalability of the Application to Other Regions with Contextual Modifications

Given its success in supporting the implementation of Permendikbud No. 46/2023, this application has strong potential for wider adoption and adaptation by local governments or the Ministry of Education. The policy recommendation is controlled scalability, namely replicating the core platform (anonymous reporting features, real-time notifications) to other regions or schools with contextual modifications. Modifications could include language adjustments, simpler interfaces for regions with low digital literacy, or integration with existing regional reporting systems. This scaling strategy should be accompanied by an audit of local IT infrastructure to avoid server performance issues.

Further Research Recommendations: Exploring an AI-Integrated Reporting System for Violence Prediction.

To evolve the application from a responsive tool to a proactive prevention system, further exploratory research is needed. The main recommendation is to explore the integration of Artificial Intelligence (AI) into the system. AI could be developed for the following functions: (a) Sentiment and Pattern Analysis: analyzing report narratives to identify recurring patterns, locations, or types of violence; (b) Early Warning System: using historical data to predict potential spikes in cases or identify risk indicators; and (c) Smart Routing: automatically directing reports to the most relevant authorities based on the report's content. This research will position Indonesia on the map of edtech innovation for more sophisticated and preventative student safety.

Scientific Ethics Declaration

* The authors declare that the scientific ethical and legal responsibility of this article published in EPES journal belongs to the authors.

Conflict of Interest

* The authors have no conflicts of interest declare relevant to the content of this article.

Funding

* We received support for this article from the Indonesian Education Scholarship (Beasiswa Pendidikan Indonesia/ BPI) and the Center for Higher Education Financing and Assessment (Pusat Pembiayaan dan

Asesmen Pendidikan Tinggi/ PPAPT) under the Ministry of Education, Culture, Research, and Technology; and the Indonesia Endowment Fund for Education (Lembaga Pengelola Dana Pendidikan/ LPDP) under the Ministry of Finance of the Republic of Indonesia.

Acknowledgements or Notes

* This article was presented as an oral presentation at the International Conference on Research in Education and Technology (www.icret.net) held in Konya/Türkiye on April 02-05, 2026.

References

- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Thousand Oaks, CA: Sage.
- Greene, M. B. et al.(2021). Integrating crisis intervention models into digital platforms for school violence prevention. *Journal of School Violence*, 20(3), 300–315.
- Gulliver, A., Griffiths, K. M., & Christensen, H. (2010). Perceived barriers and facilitators to mental health help-seeking in young people: A systematic review. *BMC Psychiatry*, 10, 113.
- Janowski, R., Green, O., Shenderovich, Y., Stern, D., Clements, L., Wamoyi, J., Wambura, M., & ... Cluver, L. D. (2023). Optimising engagement in a digital parenting intervention to prevent violence against adolescents in Tanzania: Protocol for a cluster randomised factorial trial. *BMC Public Health*, 23(1), 1224.
- Larsen, M. E., Nicholas, J., & Christensen, H. (2019). Using science to sell apps: Evaluation of mental health app store quality claims. *NPJ Digital Medicine*, 2, 18.
- Nickerson, A. B. (2023). School violence and crisis prevention and intervention. In S. L. Grapin, & J. H. Kranzler (Eds.), *School psychology* (2nd ed.). New York, NY: Springer.
- Potter, S. J., Moschella-Smith, E. A., & Lynch, M. (2024). Building a high school violence prevention app to educate and protect students. *Journal of Research on Technology in Education*, 56(2), 110–128.
- Wiljer, D., Abi-Jaoude, A., Johnson, A., Ferguson, G., Sockalingam, S., & Henderson, J. (2021). Digital health and the promise of equity: A systematic review of digital mental health interventions for youth. *JMIR Mental Health*, 8(9), e26987.
- Williams, C., Griffin, K., Botvin, C., Sousa, S., & Botvin, G. (2023). Effectiveness of digital health tools to prevent bullying among middle school students. *Adolescents*, 3(1), 110–130.

Author(s) Information

Arifah Suryaningsih

Yogyakarta State University, Kampus Karangmalang, Jl. Colombo, Caturtunggal, Depok, Sleman, DI Yogyakarta, Indonesia

ORCID iD: <https://orcid.org/0000-0002-3584-0726>

*Contact e-mail: arifahsuryaningsih.2022@student.uny.ac.id

Lantip Diat Prasajo

Yogyakarta State University, Kampus Karangmalang, Jl. Colombo, Caturtunggal, Depok, Sleman, DI Yogyakarta, Indonesia

ORCID iD: <https://orcid.org/0000-0001-8091-853X>

Nurtanio Agus Purwanto

Yogyakarta State University, Kampus Karangmalang, Jl. Colombo, Caturtunggal, Depok, Sleman, DI Yogyakarta, Indonesia

ORCID iD: <https://orcid.org/0000-0001-5357-2115>

*Corresponding author(s) contact email

To cite this article:

Suryaningsih, A., Prasajo, L.D. & Purwanto, N. A. (2026). Enhancing school safety through technology: Analysis the effectiveness, efficiency, and practicality of a violence prevention app. *The Eurasia Proceedings of Educational and Social Sciences (EPESS)*, 49, 272-280.