



THE EFFECTIVENESS OF ANIMATED VIDEO AND PICTURE STORIES ON CHILDRENS KNOWLEGE OF SEX EDUCATION IN PREVENTING SEXUAL VIOLENCE

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Abstract

Background: Child sexual violence has become a major public health and social concern worldwide and in Indonesia, highlighting the urgent need for effective preventive educational interventions. According to the Indonesian Ministry of Women's Empowerment and Child Protection, 31,947 cases of violence were reported in 2024. **Purpose:** To analyze the effectiveness of animated videos and illustrated stories on children's sex education knowledge in sexual violence prevention efforts. **Methods:** This research is a quasi-experimental study with a pretest-posttest without control group design. Sampling technique utilized cluster random sampling with a total of 46 respondents. **Results:** Knowledge scores increased significantly in both the animated video group (75.30 ± 16.49 to 89.00 ± 8.44 ; $p < 0.001$) and the illustrated story group (76.22 ± 13.05 to 91.61 ± 9.70 ; $p < 0.001$). No statistically significant difference was found between the two educational media ($p = 0.772$). **Conclusion:** Animated videos and illustrated stories are effective and can be used as health education media in children's sexual education. There is no significant difference in the effectiveness of animated video and illustrated story media on sex education knowledge in sexual violence prevention efforts.

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1. INTRODUCTION

Sexual violence refers to any act that degrades, humiliates, harasses, or violates an individual's body and/or reproductive functions due to unequal gender power relations, resulting in physical and psychological suffering, disruption of reproductive health, and the loss of opportunities to access education in a safe and supportive environment (Rahmasari, 2022). In recent years, sexual violence has become an increasingly prominent public health and social issue in Indonesia, attracting widespread attention from policymakers, researchers, educators, and the general public (Kase et al., 2023).

According to data reported by the Indonesian Ministry of Women's Empowerment and Child Protection through the SIMFONI PPA information system, a total of 31,947 cases of violence were recorded nationwide in 2024 (SIMFONI PPA, 2024). Among these, violence against children accounted for 62.6% of all reported cases. West Kalimantan Province ranked nineteenth nationally, with 666 reported cases during the same period. Within the province, Kubu Raya Regency reported the highest number of sexual violence cases, totaling 92 cases in 2024. Furthermore, according to the Kubu Raya Regional Police during the 2024 year-end press conference, 50 cases of violence against children were officially recorded (Jurnal, 2025).

Child sexual violence encompasses both physical and non-physical forms of abuse. Physical violence includes actions such as slapping, hitting, restraining, pushing, or other behaviors that inflict bodily harm. Non-physical violence includes verbal and non-verbal behaviors such as insults, abusive language,

catcalling, sexually inappropriate jokes, whistling, or other actions that demean, intimidate, or sexually harass children ([Rahmasari, 2022](#)).

Providing age-appropriate sex education is one of the most effective preventive strategies for protecting children from sexual violence. Children need to receive accurate information and develop a proper understanding of their bodies, personal boundaries, and self-protection skills according to their developmental stage. Elementary school children are at a critical period of cognitive and psychosocial development during which they acquire fundamental knowledge and life skills necessary for healthy adjustment in adolescence and adulthood ([Liberty et al., 2023](#)).

The effectiveness of educational interventions is strongly influenced by the appropriateness of the learning media used. Educational media that are compatible with children's developmental characteristics can maximize information retention and facilitate educators in delivering learning materials effectively ([Listriyati et al., 2024](#)). Animated videos have been widely recognized as an engaging educational medium because they combine moving images, audio, and visual effects that capture students' attention and improve their understanding of learning materials (Irawan et al., 2021). Similarly, illustrated storybooks present educational messages through simple narratives supported by attractive illustrations, making them particularly suitable for elementary school children. The illustrations not only enhance children's interest in reading but also facilitate comprehension by reinforcing the meaning of the accompanying text ([Septiyaningsih et al., 2023](#)).

Although previous studies have demonstrated that both animated videos and illustrated storybooks are effective educational media for improving children's knowledge, few studies have directly compared the effectiveness of these two media in delivering sex education for the prevention of sexual violence among elementary school children. Identifying the most appropriate educational medium is essential for developing effective school-based health education programs aimed at preventing child sexual violence. Therefore, this study aimed to analyze and compare the effectiveness of animated videos and illustrated storybooks in improving elementary school children's knowledge of sex education for the prevention of sexual violence.

2. METHOD

This study was conducted on 23 April 2025 at public elementary school 7 Sungai Raya, Kubu Raya Regency, West Kalimantan, Indonesia. A quasi-experimental study employing a pretest–posttest design with two intervention groups and no control group was used. Participants were selected using cluster random sampling. Two out of six fifth-grade classes were randomly selected through simple random sampling. The study included a total of 46 students, with 23 students in Class VF assigned to the animated video intervention group and 23 students in Class VB assigned to the illustrated story intervention group.

The research instruments consisted of a structured questionnaire and two educational media: animated videos and illustrated storybooks focusing on child sex education for the prevention of sexual violence. The questionnaire contained 13 items and was tested for validity and reliability prior to data collection. The instrument demonstrated satisfactory validity based on the Pearson product-moment correlation coefficient, with all items exceeding the critical value of $r > 0.361$ at a 95% confidence level. Reliability testing yielded a Cronbach's alpha coefficient of 0.64, indicating acceptable internal consistency.

The animated videos served as audiovisual educational media to facilitate children's understanding of the learning materials. The videos used in this study were "Ingin Tahu, Area Tubuh Kita?" from the YouTube channel @InginTahuID and "Yuuuuk, Kenali Pubertas pada Remaja" from the YouTube channel @remajagenrewarungpring3882. The illustrated storybook was developed by adapting the content of these animated videos into an age-appropriate picture story format suitable for elementary school children. This study received ethical approval from the Health Research Ethics Committee (KEPK) of Poltekkes Kemenkes Pontianak on 18 March 2025 under Ethical Clearance Number 91/KEPK-PK.PKP/III/2025. Normality was assessed prior to hypothesis testing. Since the data were not normally distributed ($p < 0.05$), within-group comparisons between pretest and posttest scores were analyzed using the Wilcoxon signed-rank test, while differences in knowledge improvement between the two intervention groups were analyzed using the Mann–Whitney U test. Statistical significance was established at $p < 0.05$.

3. RESULTS AND DISCUSSION

Table 1. Presents the demographic characteristics of the participants according to age and sex

Characteristics	Intervention Group			
	Animated Video		Illustrated Story	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Age				
10 years old	4	17,4	3	13,0
11 years old	17	73,9	19	82,6
12 years old	2	8,7	1	4,3
Sex				
Females	14	60,9	12	52,2
Males	9	39,1	11	47,8

The majority of participants in the animated video group were 11 years old (73.9%), while 60.9% were female. Similarly, most participants in the illustrated story group were 11 years old (82.6%), with females accounting for 52.2% of the group.

Normality testing indicated that both the animated video and illustrated story groups had non-normally distributed data ($p < 0.05$). Therefore, non-parametric statistical tests were employed. The Wilcoxon signed-rank test was used to compare pretest and posttest knowledge scores within each intervention group, while the Mann–Whitney U test was used to compare knowledge improvement between the two intervention groups.

Table 2. Difference in Knowledge Before and After the Intervention of Animated Videos and Illustrated Stories.

Variabel		n	Min-Max	Mean	SD	Nilai p
Animated Video	Before	23	31-92	75,30	16,488	0,000
	After	23	70-100	89,00	8,437	
Illustrated Story	Before	23	46-92	76,22	13,045	0,000
	After	23	62-100	91,61	9,699	

Analysis of Differences in Knowledge Before and After the Animated Video Intervention

Table 2 shows a significant improvement in children's knowledge following the animated video intervention. The mean pretest score increased from 75.30 ± 16.49 to 89.00 ± 8.44 after the intervention. The Wilcoxon signed-rank test demonstrated a statistically significant difference between pretest and posttest scores ($p < 0.001$), indicating that animated video-based education effectively improved children's knowledge of sex education for the prevention of sexual violence.

These findings are consistent with previous studies reporting that animated educational videos significantly improve children's knowledge regarding sexual violence prevention ([Mariyona et al., 2023](#)). Similarly, [Amalia et al. \(2025\)](#) reported that animated video education effectively enhanced elementary school students' knowledge, attitudes, and self-efficacy related to sexual violence prevention. [Billa and Solikhah \(2022\)](#) also observed significant improvements in both knowledge scores and knowledge categories following cartoon-based animated video interventions on sexual violence prevention.

Analysis of Differences in Knowledge Before and After the Intervention of Illustrated Stories

The illustrated story intervention also resulted in a statistically significant increase in children's knowledge. As shown in Table 2, the mean knowledge score increased from 76.22 ± 13.05 before the intervention to 91.61 ± 9.70 after the intervention. The Wilcoxon signed-rank test indicated a statistically significant improvement ($p < 0.001$), suggesting that illustrated storybooks are effective educational media for improving children's knowledge of sex education in the context of sexual violence prevention.

These findings are consistent with previous studies demonstrating that illustrated storybooks effectively enhance children's learning outcomes because they combine simple language with attractive visual illustrations that facilitate comprehension ([Qomariyanti et al., 2023](#)). [Oktarina and Liyanovitasari \(2020\)](#) similarly reported significant improvements in children's knowledge following picture storybook interventions, while [Arsa et al. \(2021\)](#) concluded that illustrated books effectively improve children's understanding of sex education.

Table 3. Comparison Between the Animated Video and Illustrated Story Interventions

Variable	n	Mean rank	Selisih Mean Rank	Z	Nilai p
Animated Video	23	22,80	1,4	-0,356	0,772
Illustrated Story	23	24,20			

The Mann–Whitney U test showed that the animated video and illustrated story groups had a p-value of 0.772 ($p > 0.05$), indicating no statistically significant difference between the two educational media in improving children's knowledge of sex education for the prevention of sexual violence. These findings suggest that both media were equally effective in enhancing students' knowledge.

The comparable effectiveness of the two interventions may be attributed to the participants' adequate reading ability. The fifth-grade students at SD Negeri 7 Sungai Raya demonstrated good reading skills, enabling them to easily understand the concise text and visual illustrations presented in the illustrated storybooks. Compared with the conventional teacher-centered approach, which typically relies on lengthy and monotonous text-based instruction, the illustrated stories provided a more engaging and accessible learning experience. Furthermore, the flexible reading pace allowed students to revisit and reread the content, thereby reinforcing their understanding. In contrast, the animated videos effectively captured students' attention through dynamic audiovisual presentations, facilitating comprehension when displayed using a projector during the learning sessions.

According to Edgar Dale's Cone of Experience, visual learning media such as pictures and videos facilitate learning by providing concrete visual representations that enhance learners' understanding and engagement (Susanti et al., 2022). This theoretical framework may explain why no significant difference was observed between the two intervention groups in terms of knowledge improvement.

The present findings are consistent with those of Fathaniah and Kurniasari (2023), who compared posters, animated videos, and comics as educational media for improving children's knowledge. Their study demonstrated that all three media were effective, with statistically significant improvements observed for posters ($p = 0.001$), animated videos ($p = 0.002$), and comics ($p < 0.001$). Therefore, both animated videos and illustrated storybooks can be recommended as effective educational media for delivering child sex education aimed at preventing sexual violence.

4. CONCLUSION

Both animated videos and illustrated storybooks were effective educational media for improving elementary school children's knowledge of sex education in the context of sexual violence prevention. Significant improvements in knowledge were observed following the interventions in both groups. However, no statistically significant difference was found between the effectiveness of the two educational media. These findings suggest that both animated videos and illustrated storybooks can be recommended as effective and engaging health education media for delivering age-appropriate sex education to elementary school children as part of sexual violence prevention programs.

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REFERENCE

- Amalia, Suwarni, L. And Selviana. (2025), Video Animasi Pencegahan Kekerasan Seksual Pada Anak Efektif Meningkatkan Pengetahuan, Sikap, Dan Efikasi Diri Siswa Sekolah Dasar, *Jurnal Kesehatan Masyarakat Indonesia*, Vol. 20, The Indonesian Journal Of Public Health, Pontianak.
- Arsa, N.M.R.A., Ujjianti, P.R. And Astawan, I.G. (2021), “Media Pembelajaran Buku Cerita Bergambar Untuk Meningkatkan Pemahaman Seksual Pada Anak Kelompok B Taman Kanak-Kanak”, *Mpi*, Vol. 2 No. 1.
- Billa, H.S. And Solikhah, U. (2022), “Efektivitas Media Visikarkes (Video Animasi Kertun Kekerasan Seksual) Terhadap Pengetahuan Reproduksi Dini Anak Usia Sekolah Di Sd Negeri 03 Mersi”, *Jurnal Kesehatan Tambusai*, Vol. 3 No. 3, Pp. 259–465.
- Fathaniah, A.B. And Kurniasari, R. (2023), Perbandingan Efektivitas Media Poster, Video, Serta Komik Terhadap Peningkatan Pengetahuan Tentang Sarapan Pada Anak Sdn Margahayu Xix Bekasi, *Media Gizi Pangan*, Vol. 30.
- Irawan, T., Dahlan, T., & Fitriani, F. (2021). Analisis penggunaan media video animasi terhadap motivasi belajar siswa di sekolah dasar. *Didaktik: Jurnal Ilmiah PGSD STKIP Subang*, 7(1), 212–225. <https://doi.org/10.36989/didaktik.v7i01.738>
- Jurnal.co.id. (2025, January 2). *Kasus kekerasan anak jadi atensi khusus Kapolres Kubu Raya*. <https://jurnal.co.id/2025/01/02/kasus-kekerasan-anak-jadi-atensi-khusus-kapolres-kubu-raya/>
- Kase, A.D., Sukiati, D.S. And Kusumandari, R. (2023), “Resiliensi Remaja Korban Kekerasan Seksual Di Kabupaten Timor Tengah Selatan: Analisis Model Miles Dan Huberman”, *Inner: Journal Of Psychological Research*, Vol. 3 No. 2, Pp. 301–311.

- Liberty, I.A., Septadina, I.S., Rizqie, M.Q. And Ananingsih, E.S. (2023), Indeks Antropometri Sebagai Alat Skrining Community Childhood Obesity Pada Anak Di Sekolah Dasar, Penerbit Nem.
- Listriyati, L., Adnani, Q. E. S., & Susiarno, H. (2024). Scoping review sex education untuk mencegah kekerasan seksual pada anak usia dini. *Jurnal Kesehatan Vokasional*, 9(2), 136–147. <https://doi.org/10.22146/jkesvo.95236>
- Mariyona, K., Rusdi, P.H.N., Nugrahmi, M.A. And Meiriza, W. (2023), “Pengaruh Penggunaan Media Video Animasi Terhadap Peningkatan Pengetahuan Pencegahan Pelecehan Seksual Pada Anak Usia Dini Di Tk Aisyiyah Kota Bukittinggi”, *Jurnal Ilmiah Universitas Batanghari Jambi*, Universitas Batanghari Jambi, Vol. 23 No. 2, P. 2146, Doi: 10.33087/Jiubj.V23i2.3859.
- Oktarina, N.D. And Liyanovitasari. (2020), “Pengaruh Media Cerita Bergambar Terhadap Pengetahuan Tentang Seks Dini Pada Anak”, *Jurnal Kesehatan Perintis (Perintisâ€™Tm S Health Journal)*, Vol. 6 No. 2, Pp. 110–115.
- Qomariyanti, N., Ermiana, I. And Husniati. (2023), “Pengembangan Media Buku Cerita Bergambar Flipbook Untuk Peningkatan Hasil Belajar Siswa”, *Journal Of Classroom Action Research*, Vol. 5 No. 1, Doi: 10.29303/Jcar.V5i1.2818.
- Rahmasari, R. (2022), “Analisa Makna ‘Persetujuan’ dalam Pemendikbud Ristek No. 30 Tahun 2021 Terhadap Fenomena Kekerasan Seksual Di Lingkungan Pendidikan Yang Dianggap Sebagai Upaya Legitimasi Terhadap Perzinaan”, *Jurnal Penegakan Hukum Dan Keadilan*, Vol. 3 No. 1, Pp. 78–89.
- Septiyaningsih, R., Reffy, P., Widyastuti, W., Fadhilah, R., Sugiyarti, R., & Muthi'a, F. (2023). *Media pembelajaran menunjang kemampuan belajar peserta didik SD*. Cahya Ghani Recovery.
- Simfoni Ppa, (2024), Data Input Kasus Kekerasan Indonesia, <https://Kekerasan.Kemenpppa.Go.Id/Ringkasan> (Diakses Pada 2 Januari 2025)
- Susanti, S., Dewi, P.I.A., Saputra, N., Dewi, A.K., Wulandari, F. And Kusumawardan, R.N. (2022), *Desain Media Pembelajaran Sd/Mi*, Yayasan Penerbit Muhammad Zaini.