

Perceived Effectiveness of an AI Interactive Video for Cyberbullying Awareness among University Students

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ABSTRACT

AI interactive video is progressively used as an innovative digital communication tool to support awareness of social and mental well-being issues. The use of interactive video may help students better understand cyberbullying, its impact, and appropriate responses. However, there is limited empirical evidence on students perceived effectiveness of AI interactive cyberbullying awareness videos, particularly in supporting cyberbullying awareness among university students. Hence, this study intends to examine students' perceptions of an AI interactive cyberbullying awareness video (CyberAware AI video). A total of 61 university students in Malaysia participated in this study. The present study applied descriptive statistical methods, reliability analysis, knowledge quiz scoring and thematic analysis to analyse the data. The findings showed high levels of understanding after watching the video ($M = 4.38$, $SD = 0.54$), awareness of cyberbullying types, impacts and response actions ($M = 4.39$, $SD = 0.51$), and perceived video effectiveness ($M = 4.35$, $SD = 0.68$). The knowledge quiz also showed strong post-video knowledge, with a mean score of 9.62 out of 10. The study results highlight the potential of CyberAware AI video as a digital awareness tool to support cyberbullying awareness, responsible online behaviour, and appropriate response actions among university students. However, the findings should be interpreted as perceived effectiveness and post-video awareness rather than causal evidence of improvement.

Keywords: Perceived Effectiveness, AI Interactive Video, Cyberbully, University student

INTRODUCTION

The rapid growth of digital communication platforms has changed how students interact and learn. The rapid expansion of digital communication technologies and social media platforms has transformed the way individuals interact, learn, and socialize. While these advancements offer significant benefits, they have also given rise to harmful online behaviours, particularly cyberbullying. Currently, with the increase of technologies, brought the rise in mental health issues, thus contributing to the rampant cyberbullying cases worldwide. It had become a critical and disturbing issue, affecting the individual's well-being. The primary objective of this study is to assess the perceived effectiveness of the CyberAware AI video. Globalisation and the world without boundaries have contributed to major problems such as cyberbullying, online fraud and infringement of copyright due to the vast, uncontrollable usage of social media platforms by people.

Patchin and Hinduja (2006) and Menesini and Spiel (2012) coined the term cyberbullying to refer to the intentional and persistent use of digital tools to threaten, harass, humiliate, or isolate an individual or victims. Furthermore, it emerged as a critical public health concern affecting individuals across age groups, especially adolescents and young adults. Unlike traditional bullying, cyberbullying can occur continuously, anonymously, and across wide audiences, intensifying its negative effects on psychological and emotional well-being. A growing body of research highlights the strong association between cyberbullying and adverse health outcomes, including anxiety, stress, feelings of depression, low self-esteem and in severe cases, self-harm and suicidal ideation.

Several past studies stated that cyberbullying is a deliberate act of violent behaviour by one person or groups through the digital world, targeting susceptible people who cannot defend themselves (Martínez et al., 2019; Peter & Petermann, 2018). These bad acts aim not only to humiliate other netizens but also to spread rumours about them through social networking websites. Aggressive behaviours such as bashing with harsh, disgrace words, ridiculing, putting down someone on social media, body-shaming, disseminating rumours on the victim through social networking sites, with hurtful messages, posting manipulative deep fakes, bad images, and violating the privacy of other people's social media accounts are considered abusive and bring to traumas, fear, miserable experiences, and depression in victims.

Moreover, perpetrators and bystanders are also affected, as repeated exposure to harmful online interactions may normalize aggressive behaviour and reduce empathy. These consequences underscore the urgent need for effective, scalable, and engaging interventions that address not only awareness but also behavioural change and emotional resilience.

Hence, effective communication tools for health education include traditional dissemination methods such as lectures, forums, discussions, posters, kits, pamphlets, conferences, symposia, and radio and television messages, which contribute to significant public enlightenment and serve as a pivotal medium for instilling public awareness. Each method has its own speciality, flaws, and a range of benefits. The effectiveness of the intervention depends on its suitability to the target audience in their specific settings, taking into consideration their backgrounds. Effective intervention focuses on prevention and curbing cyberbullying, emphasising the importance of maintaining mental health while using social media platforms in cyberspace. The fast spread of content and anonymous status contributes to the soaring issues of cyberbullying on social media platforms (Ismail et al., 2017). This cyberbullying problem should not be taken lightly, as aggressive behaviours lead to the misfits on the Internet. Prevention is better than a cure. Therefore, it is imperative to implement intervention and preventive measures to curb this social problem from worsening and causing fear among netizens.

Laranjo et al. (2015) found that social media offers significant benefits for spreading positive health awareness. It is less costly, accessible, and extends widely without hurdles. Thus, an effective medium of communication that converges new media must minimise the issue of cyberbullying in Malaysia. In the area of technology-based tools, such as online modules and mobile applications, they can help educate students about bullying and cyberbullying, promote digital literacy, and teach conflict-resolution skills. These tools can be part of school-based programs or external campaigns aimed at curbing aggressive behaviour (Calvete et al., 2023; Ferri et al., 2020a; Martzoukou et al., 2023).

Existing anti-cyberbullying programs primarily rely on traditional educational approaches such as lectures, awareness campaigns, and policy enforcement. While these methods are valuable, they often lack personalization, interactivity, and real-time support, limiting their effectiveness in influencing user behaviour in dynamic digital environments. In recent years, advancements in artificial intelligence (AI) and interactive media have opened new possibilities for innovative interventions. AI-driven systems can adapt to user input, provide personalized feedback, and simulate realistic scenarios, making them particularly suitable for addressing complex social issues such as cyberbullying.

This study proposes an innovative approach to reducing cyberbullying and promoting health and well-being by developing an AI-powered interactive video and support kit. The interactive video component engages users in scenario-based learning, allowing them to make decisions in simulated cyberbullying situations and observe the

consequences of their actions in a safe environment. Implementing awareness campaigns often uses digital platforms to reach large audiences and educate them about the harmful effects of bullying and cyberbullying, leveraging interactive tools such as videos, social media campaigns, and webinars. (Urbina-Nájera et al., 2024). New and conventional technologies, such as virtual reality, artificial intelligence, online games, and online courses, are widely used to combat both bullying and cyberbullying (Arango et al., 2024; Gabrielli et al., 2021). Complementing this, the support kit provides practical resources, including coping strategies, reporting guidelines, and mental health support tools, designed to empower users to respond effectively to cyberbullying incidents.

By integrating AI technology with experiential learning and mental health support, this innovation aims to bridge the gap between awareness and action. It seeks to enhance digital empathy, strengthen coping mechanisms, and ultimately reduce the prevalence and impact of cyberbullying. This paper presents the conceptual framework, design, and potential implications of this AI-driven video as an intervention, contributing to the growing field of technology-enhanced solutions for health promotion and social well-being.

LITERATURE REVIEW

Cyberbullying and Digital Aggression

Cyberbullying has become a significant global concern in the digital era, emerging as a form of aggressive behaviour conducted through digital platforms such as social media, messaging applications, and online forums. It is commonly defined as the intentional and repeated use of digital communication tools to harass, humiliate, threaten, or isolate individuals (Patchin & Hinduja, 2006; Menesini & Spiel, 2012). Unlike traditional bullying, cyberbullying is characterized by anonymity, continuous exposure, and a potentially unlimited audience, which intensifies its psychological impact on victims.

Previous studies highlight that cyberbullying is not limited to direct victims but also affects perpetrators and bystanders. Continuous exposure to harmful online interactions may normalize aggressive behaviour and reduce empathy among users. As a result, cyberbullying is increasingly recognized as a serious public health issue linked to anxiety, depression, low self-esteem, emotional distress, and in severe cases, suicidal ideation (Martínez et al., 2019; Peter & Petermann, 2018). These findings indicate that cyberbullying is not only a behavioural issue but also a psychological and social concern that requires urgent intervention.

Mental Health Implications of Cyberbullying

The relationship between cyberbullying and mental health has been widely documented in the literature. Victims often experience emotional instability, stress, and social withdrawal due to repeated exposure to online harassment (Chu et. al. 2018). Studies show that prolonged exposure to cyberbullying can significantly affect adolescents' and young adults' psychological well-being, leading to long-term mental health consequences (Ali, S.I., & Shahbuddin, N.B., 2022).

Furthermore, the digital environment intensifies these effects due to its pervasive and inescapable nature. Unlike physical bullying, cyberbullying follows individuals into their private spaces, making recovery more difficult. This highlights the importance of addressing not only the behaviour itself but also its psychological consequences through preventive and supportive interventions (Ria et.al., 2025).

Communication Approaches in Cyberbullying Prevention

Traditional communication methods such as lectures, awareness campaigns, posters, and media broadcasting have long been used to educate the public about cyberbullying. These approaches aim to raise awareness and encourage responsible digital behaviour. However, while these methods are useful for disseminating information, their effectiveness is often limited by a lack of interaction, personal engagement, and behavioural reinforcement.

A. Baki Kocaballi et al. (2020) emphasize that communication strategies must be context-sensitive and audience-oriented to achieve meaningful behavioural change. Similarly, Sahana Viswanath, S., & Anil Kumar K. M. (2023). Highlight that the rapid spread of content and anonymity in digital platforms contributes to the persistence of cyberbullying, making conventional awareness approaches insufficient on their own.

Digital Technologies and Interactive Interventions

Recent developments in digital technology have introduced more interactive and adaptive approaches to addressing cyberbullying. Tools such as online modules, mobile applications, virtual reality, and gamified learning systems are increasingly used to promote digital literacy, empathy, and conflict-resolution skills (Calvete et al., 2023; Ferri et al., 2020; Martzoukou et al., 2023).

These technology-based interventions offer more engaging, immersive learning experiences than traditional methods. Studies suggest that interactive digital tools can improve users' understanding of cyberbullying scenarios and enhance their ability to respond appropriately in real-life situations. In addition, awareness campaigns delivered through social media platforms, videos, and webinars have also been shown to reach wider audiences effectively (Urbina-Nájera et al., 2024).

Artificial Intelligence in Cyberbullying Intervention

Artificial intelligence (AI) has emerged as a promising tool in addressing complex social issues, including cyberbullying. AI-driven systems can provide personalized learning experiences, real-time feedback, and adaptive responses based on user behaviour, making AI particularly suitable for behavioural education and mental health support (Milosevic et al., 2023). Recent studies suggest that AI-powered interactive systems can simulate realistic social scenarios and support empathetic communication, enabling users to understand better the emotional consequences of online interactions in a safe environment (Sharma et al., 2023). This experiential learning approach enhances emotional awareness, decision-making skills, and empathy, which are important elements in cyberbullying prevention programs (Salem et al., 2023). Furthermore, AI-guided interventions have demonstrated potential in improving psychological resilience and emotional regulation among cyberbullying victims, thereby bridging the gap between awareness and behavioural change through a more holistic intervention model (Bai et al., 2026).

Gap in Existing Studies

Despite increasing research on cyberbullying, most current interventions still rely on traditional methods such as lectures, posters, and awareness campaigns. These approaches are useful for basic awareness but often fall short in engaging users emotionally and changing online behaviour.

Existing programs also tend to focus more on victims, with less attention given to perpetrators and bystanders, even though all groups are affected in the cyberbullying cycle. In addition, many digital tools used today lack personalization, real-time feedback, and interactive learning features that are important for addressing the psychological and behavioural aspects of cyberbullying. Although some technology-based solutions, such as mobile apps and online modules, exist, they are not yet fully integrated with AI to simulate real-life cyberbullying scenarios or provide adaptive support based on user behaviour.

Therefore, there is a clear need for more interactive, AI-enhanced interventions that combine awareness, emotional engagement, and mental health support. This gap supports the development of an AI-powered interactive video and support kit to improve empathy, digital resilience, and cyberbullying prevention.

RESEARCH METHODOLOGY

This study applied a quantitative descriptive analysis to examine students perceived effectiveness of a CyberAware AI video. A descriptive approach was selected because the study aimed to describe respondents' understanding, awareness, perceived video effectiveness and post-video knowledge after watching the

CyberAware AI video. The study also included open-ended questions to gather respondents' feedback on lessons learned and suggestions for improving the video. Figure 3.1 illustrates the research methodology.

Participants

The participants of this study were 61 university students from Malaysian higher education institutions. A convenience sampling method was employed, whereby students who met the inclusion criteria and voluntarily agreed to participate were invited to join the study. The inclusion criteria required participants to be currently enrolled university students and regular users of digital media platforms, considering that cyberbullying commonly occurs in online environments. Participants represented different study levels and years of study to obtain diverse perspectives regarding cyberbullying awareness among university students. Prior to data collection, all participants were informed about the purpose of the study and provided their consent before watching the CyberAware AI video and completing the online questionnaire. Participation was entirely voluntary and anonymous.

Research Instruments

The research instrument was a structured questionnaire developed to evaluate respondents' responses after watching the CyberAware AI video. The questionnaire consisted of five main sections. The first section collected demographic information, including gender, age, study level, year of study, most frequently used media platform, and daily media usage. The second section measured respondents' understanding after watching the video. The third section measured respondents' awareness of the types, impacts and responses to cyberbullying. The fourth section measured respondents perceived effectiveness of the video. The fifth section consisted of a knowledge quiz and open-ended questions.

The Likert-scale items were measured using a five-point scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. The understanding element consisted of five items, the awareness construct of eight, and the perceived effectiveness construct of five. The knowledge quiz consisted of 10 objective questions on cyberbullying. Each correct answer was given one mark, resulting in a maximum score of ten marks.

Development of the CyberAware AI Interactive Video

The CyberAware AI Interactive Video was developed as an educational awareness tool to promote cyberbullying awareness, responsible digital behaviour, and appropriate response strategies among university students. The video was designed using Canva for visual content development and Adobe Premiere Pro for video editing, narration synchronization, transitions, and multimedia integration.

The development process involved four stages: (1) content planning and storyboard development, (2) visual and multimedia design, (3) video production and editing, and (4) expert review and refinement. The storyboard was developed based on current cyberbullying literature and awareness objectives related to cyberbullying identification, psychological impacts, preventive strategies, and appropriate reporting mechanisms.

The video content was organised into several learning segments covering the definition of cyberbullying, real-life cyberbullying situations among students, physical, emotional, academic, and social impacts of cyberbullying, common types of cyberbullying, prevention strategies, and appropriate actions when encountering cyberbullying incidents. In addition, students were provided with information regarding official reporting channels and support services available in Malaysia.

Although the CyberAware AI video does not incorporate adaptive AI algorithms that personalise responses in real time, AI-assisted multimedia elements were utilised to enhance learner engagement through interactive storytelling, scenario-based learning, visual animations, narration, and reflective learning activities. The video encourages students to reflect upon realistic cyberbullying situations and promotes empathetic and responsible digital behaviour.

The learning objectives of the CyberAware AI Interactive Video are to enable students to:

- 1) Define and identify different forms of cyberbullying.
- 2) Recognise the emotional, social, academic, and physical impacts of cyberbullying.
- 3) Differentiate cyberbullying behaviours from normal online disagreements.
- 4) Apply appropriate preventive and reporting strategies when experiencing or witnessing cyberbullying incidents.
- 5) Promote responsible digital citizenship and empathy in online interactions.

Table 3.1 summarises the content design and learning objectives of the CyberAware AI Interactive Video.

Table 3.1: Content Design of the CyberAware AI Interactive Video

Video Component	Content Description	Learning Objective
Introduction	Definition of cyberbullying	Understand cyberbullying concepts
Scenario-based learning	Examples of cyberbullying situations among students	Recognise cyberbullying behaviours
Types of Cyberbullying	Harassment, impersonation, exclusion, cyberstalking, spreading rumours dan sebagainya	Identify different forms of cyberbullying
Impacts of Cyberbullying	Emotional, physical, academic, and social impacts	Understand the consequences of cyberbullying
Prevention Strategies	Digital safety practices and responsible online behaviour	Promote digital resilience
Reporting Channels	AduanSKMM dan MOE reporting information	Encourage appropriate reporting behaviour
Reflection Segment	Responsible digital citizenship messages	Promote empathy and responsible online conduct

Data Collection Procedure

Before completing the questionnaire, participants were required to watch the CyberAware AI Interactive Video in its entirety. The duration of the video was designed to ensure adequate exposure to all learning components, including cyberbullying scenarios, preventive strategies, and reporting mechanisms. Immediately after watching the video, participants completed the online questionnaire to capture their immediate perceptions and knowledge regarding cyberbullying awareness.

Data Analysis

The data were analysed using descriptive statistical methods. Frequency and percentage were used to describe the demographic profile of respondents, their media platform usage, and daily media usage. Mean and standard deviation were used to analyse the Likert-scale items for understanding, awareness, and perceived effectiveness. Cronbach's alpha (CA) was used to examine the internal consistency of the Likert-scale constructs.

For the knowledge quiz, each correct answer was coded as 1 point, and each incorrect answer was coded as 0. The total score for each respondent was calculated, and the overall mean, standard deviation, minimum, median, maximum, and score distribution, were reported. Open-ended responses were analysed using thematic analysis. The responses were reviewed, coded, and grouped into recurring themes based on the respondents' answers. The thematic findings were then reported using frequency and percentage to show the dominant patterns in the qualitative responses.

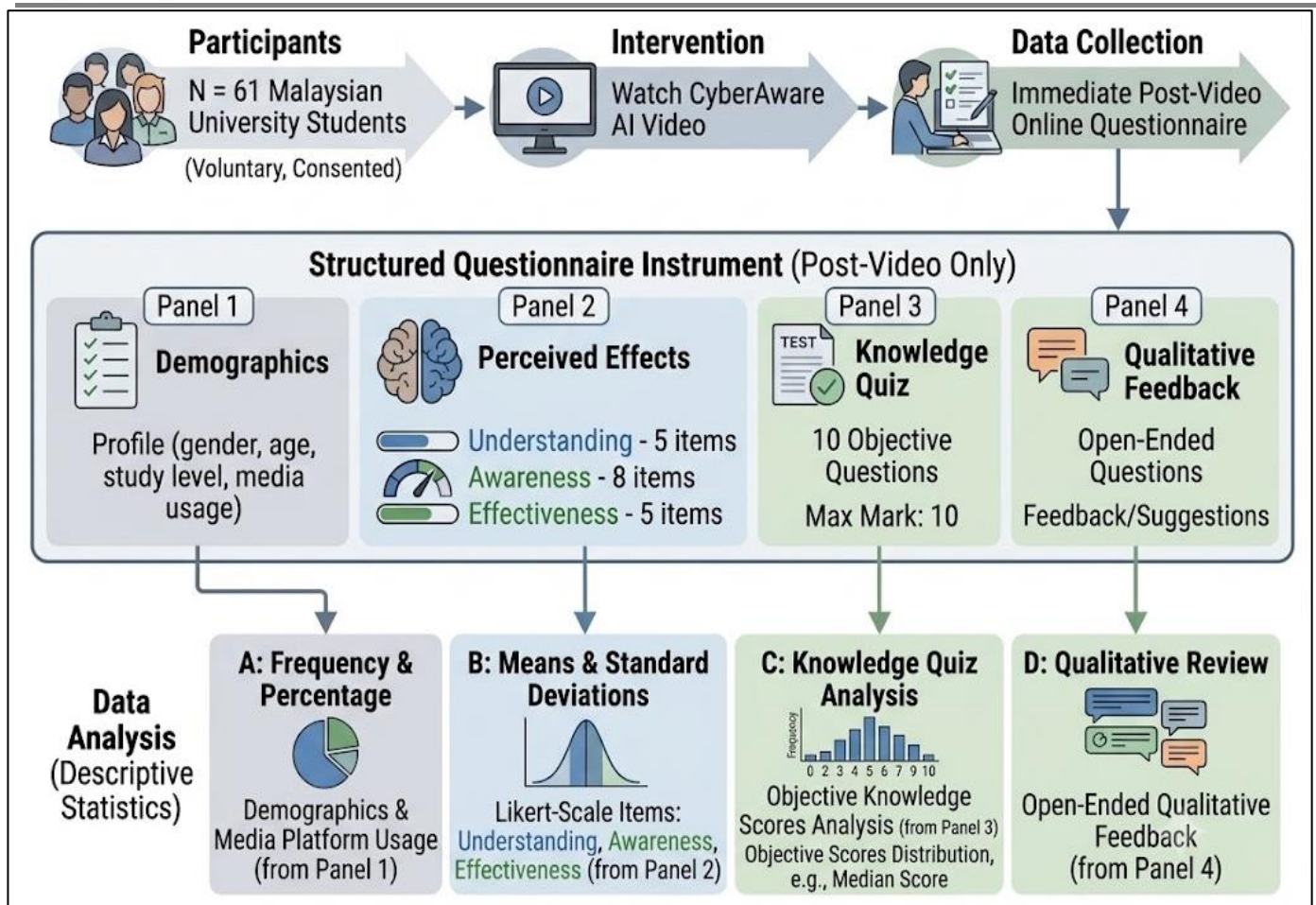


Figure 3.1: Illustrates the research methodology

RESULTS AND ANALYSIS

Demographic Profile of Respondents

Table 4.1 presents the demographic profile of the 61 respondents. The majority of respondents were female (39, 63.9%), while 22 were male (36.1%). In terms of age, most respondents were between 18 and 20 years old, with 29 respondents (47.5%), followed by 27 respondents aged 21 to 23 (44.3%). Only four respondents were aged 24-26, while one was aged 27 or older.

For study level, 32 respondents were diploma students, representing 52.5%, while 28 respondents were bachelor's degree students, representing 45.9%. One respondent was a PhD student. In terms of year of study, most respondents were in Year 2 (20, 32.8%), followed by Year 3 (18, 29.5%) and Year 1 (16, 26.2%).

The respondents were active users of digital media. Most respondents reported frequent use of social media platforms (52; 85.2%). A total of 25 respondents reported using media for 5 to 7 hours per day, while 24 reported 2 to 4 hours per day. These findings indicate that the respondents were highly exposed to digital platforms, making them relevant participants for a cyberbullying awareness study.

Table 4.1: Demographic Profile of Respondents

Demographic Item	Category	Frequency	Percentage (%)
Gender	Female	39	63.9
	Male	22	36.1
Age	18–20	29	47.5
	21–23	27	44.3

	24–26	4	6.6
	27 and above	1	1.6
Study Level	Diploma	32	52.5
	Bachelor's degree	28	45.9
	PhD	1	1.6
Year of Study	Year 1	16	26.2
	Year 2	20	32.8
	Year 3	18	29.5
	Year 4 and above	5	8.2
	Not applicable	2	3.3

Understanding After Watching the CyberAware AI Video

Table 4.2 shows that the respondents reported a high level of understanding after watching the CyberAware AI video. The overall mean score for the Understanding element was 4.38 with a SD of 0.54. The highest-rated item was “*I understand that cyberbullying can happen through different digital platforms*” ($M = 4.52$, $SD = 0.57$) as shown in Figure 4.1. This indicates that respondents understood that cyberbullying is not limited to one platform but can occur across social media, messaging applications, online games and online communities.

The item “*I can differentiate cyberbullying from normal online disagreement or criticism*” had the lowest mean score in this element ($M = 4.30$, $SD = 0.61$). Although the score is still high, this result suggests that future CyberAware AI video improvements should include clearer examples that distinguish cyberbullying from ordinary online disagreement or criticism.

Table 4.2: Mean Score and SD for the Understanding element

Item	Statement Summary	Mean	SD	Agreeability Level
U1	After watching the video, I can clearly explain what cyberbullying means.	4.31	0.76	90.2%
U2	I can identify actions that may be considered cyberbullying.	4.36	0.58	95.1%
U3	I understand that cyberbullying can happen through different digital platforms.	4.52	0.57	96.7%
U4	I can differentiate cyberbullying from normal online disagreement or criticism.	4.30	0.61	91.8%
U5	The video improved my previous understanding of cyberbullying.	4.41	0.56	96.7%

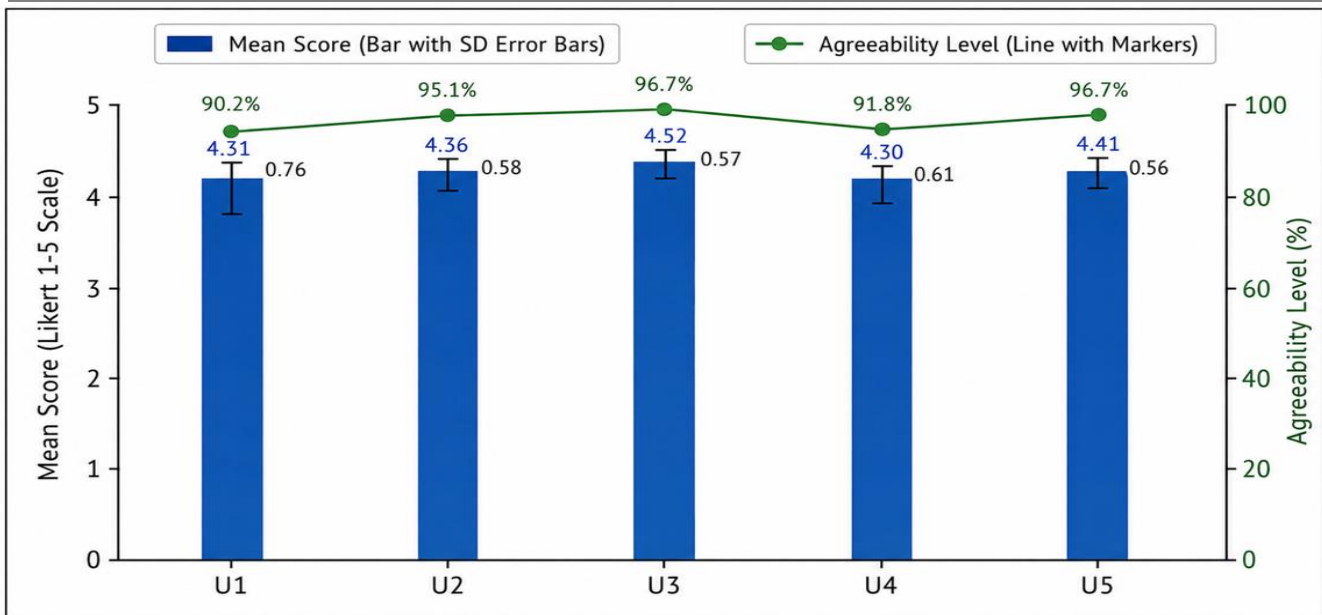


Figure 4.1: Mean score, SD, and Agreeability level for the Understanding element

Awareness of Cyberbullying

Table 4.3 presents the overall mean score for the Awareness element ($M = 4.39$, $SD = 0.51$). The highest-rated item was “*I understand that cyberbullying can affect students’ confidence, social relationships, and academic performance*” ($M = 4.46$, $SD = 0.62$). This finding suggests that respondents were aware that cyberbullying can have broader effects beyond emotional distress.

The lowest mean score was recorded for the item related to identifying different forms of cyberbullying, such as harassment, spreading rumours and sharing private content without permission. This item recorded a mean score of 4.30 and an SD of 0.64, as shown in Figure 4.2. Although the score remains high, the finding suggests that the video could be strengthened by including more specific examples of cyberbullying behaviours.

Table 4.3: Mean Score and SD for the Awareness element

Item	Statement Summary	Mean	SD	Agreeability Level
A1	I can identify different forms of cyberbullying	4.30	0.64	90.2%
A2	I understand that cyberbullying can occur through social media, messaging apps, online games and online communities.	4.41	0.59	95.1%
A3	I understand that cyberbullying can affect a victim’s emotional well-being.	4.41	0.56	96.7%
A4	I understand that cyberbullying can affect students’ confidence, social relationships and academic performance.	4.46	0.62	93.4%
A5	I know the importance of saving evidence if cyberbullying happens.	4.43	0.56	96.7%
A6	I understand the importance of reporting cyberbullying through proper channels.	4.36	0.58	95.1%
A7	I know that victims should seek support from trusted people or relevant authorities.	4.39	0.59	95.1%
A8	I feel more confident about taking appropriate action if I experience or witness cyberbullying.	4.38	0.61	93.4%

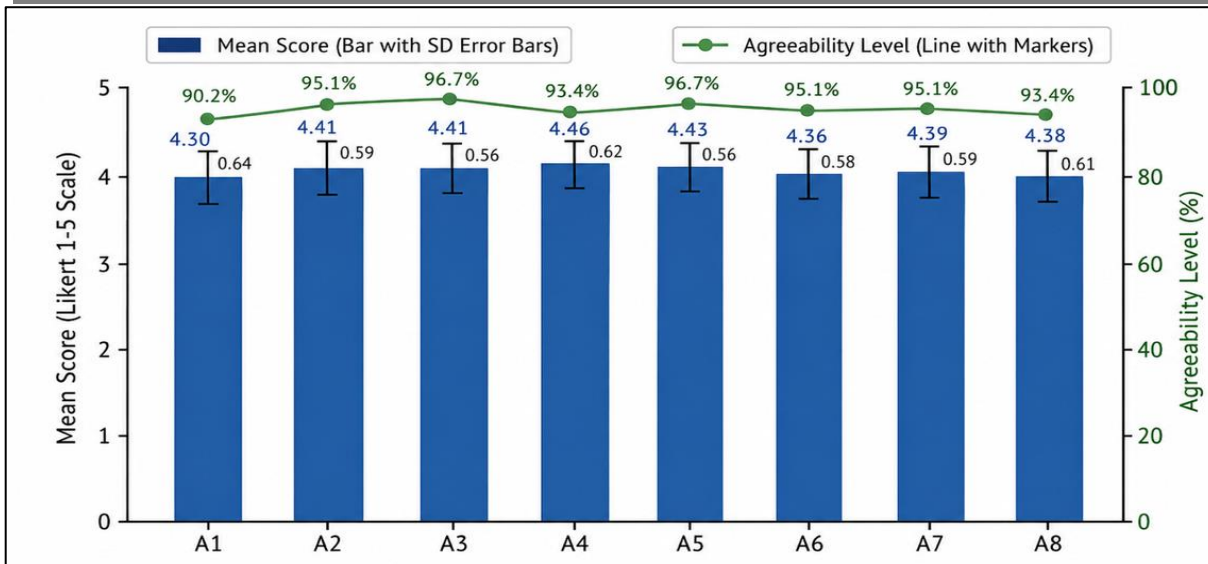


Figure 4.2: Mean score, SD, and Agreeability level for Awareness element

Perceived Effectiveness

The respondents perceived the cyberbullying awareness video as effective, as shown in Table 4.4. The overall mean score for the Effectiveness element ($M = 4.35$, $SD = 0.68$). The highest mean scores were recorded for the items “*The video encouraged me to be more responsible when using digital platforms*” and “*Overall, the video was effective in increasing my awareness of cyberbullying,*” both with a mean score of 4.39. This indicates that respondents viewed the video positively as an awareness tool.

However, Figure 4.3 shows that the item “*The message of the video was easy to understand*” had the lowest mean score ($M = 4.26$) and the highest SD ($SD = 0.81$). This item also had the lowest agreement percentage within the effectiveness element at 85.2%. This suggests that although the video was generally effective, some respondents may have found parts of the message less clear. Therefore, future versions of the video should improve message clarity, simplify explanations, and strengthen the flow of information.

Table 4.4: Mean score and SD for Effectiveness element

Item	Statement Summary	Mean	SD	Agreeability Level
E1	The message of the video was easy to understand.	4.26	0.81	85.2%
E2	The examples in the video were relevant to students’ online experiences.	4.38	0.66	93.4%
E3	The visuals, audio, and narration helped me understand the topic better.	4.33	0.75	91.8%
E4	The video encouraged me to be more responsible when using digital platforms.	4.39	0.69	91.8%
E5	Overall, the video was effective in increasing my awareness of cyberbullying.	4.39	0.76	91.8%

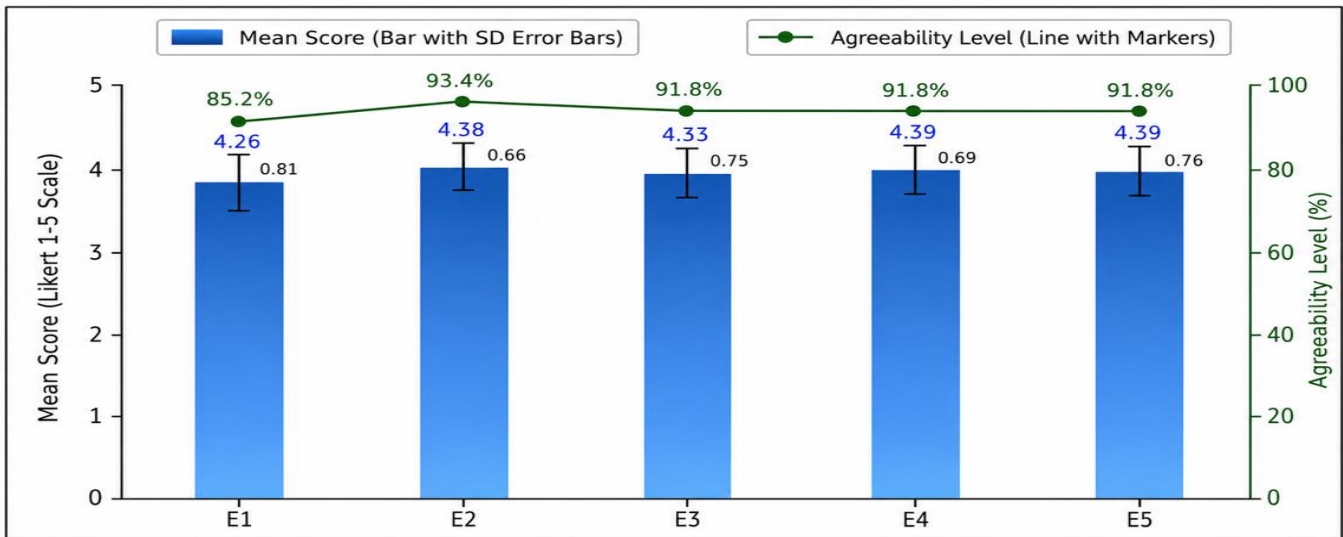


Figure 4.3: Mean score, SD, and Agreeability level for the Effectiveness element

Reliability Analysis

Cronbach's alpha (CA) was used to measure the internal consistency of the Likert-scale items. Table 4.5 showed that all elements achieved excellent reliability. The Understanding element recorded a CA value of 0.913, the Awareness element recorded 0.948, and the Effectiveness element recorded 0.954. The overall CA value for all 18 Likert-scale items was 0.961.

Table 4.5: Reliability analysis of the cyberbullying awareness survey constructs

Construct	Number of Items	Mean	SD	Cronbach's Alpha
Understanding After Watching the Video	5	4.38	0.54	0.913
Awareness of Cyberbullying Types, Impact and Response	8	4.39	0.51	0.948
Effectiveness of the Video	5	4.35	0.68	0.954
Overall Likert Items	18	4.38	0.50	0.961

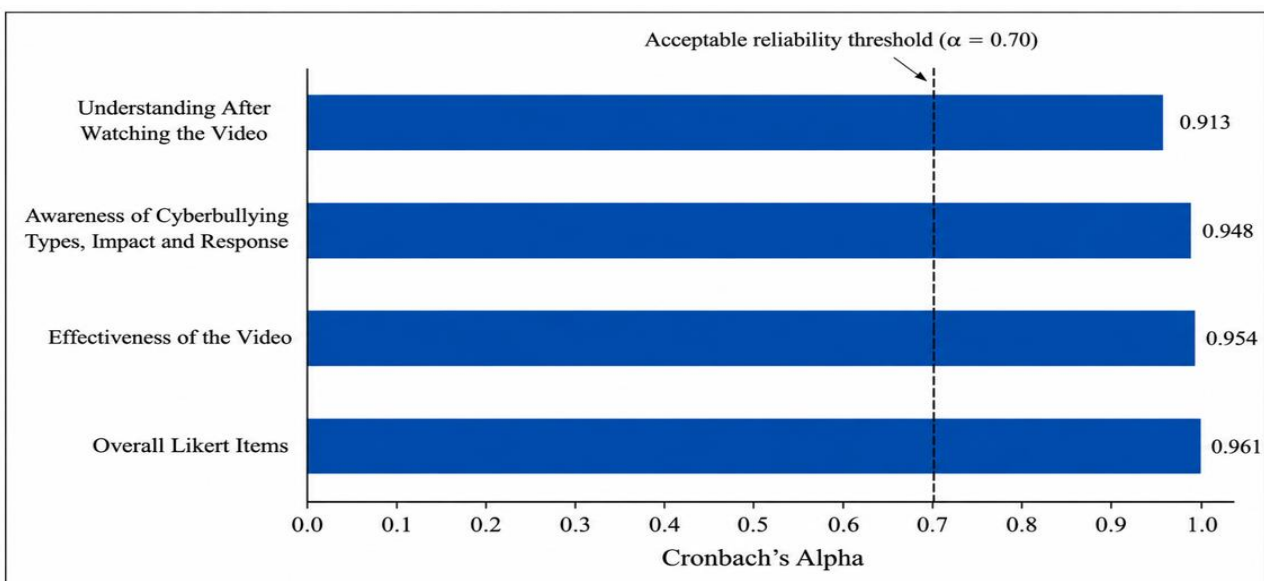


Figure 4.4: Cronbach's Alpha values for the cyberbullying awareness survey constructs

Knowledge Quiz Performance

The knowledge quiz consisted of 10 objective questions related to cyberbullying. Each correct answer was awarded 1 mark, for a maximum score of 10. Table 4.6 shows that the respondents achieved a high overall knowledge score, with a mean of 9.62 out of 10 and a SD of 1.14. The median score was 10, indicating that most respondents answered the majority of the quiz questions correctly.

Table 4.7 shown the highest score was recorded for the question on the importance of keeping evidence of cyberbullying, with all respondents answering correctly. The lowest correct response percentages were recorded for items related to the first action a victim should take and actions that can help prevent cyberbullying, both at 93.4%. Overall, the findings indicate that most respondents demonstrated strong post-video knowledge of cyberbullying.

Table 4.6: Cyberbullying knowledge quiz performance

Statistic	Value
Mean score	9.62 / 10
Mean percentage	96.2%
SD	1.14
Minimum	2
Median	10
Maximum	10

Table 4.7: Cyberbullying knowledge quiz score distribution

Score	Number of Respondents
2 / 10	1
7 / 10	1
8 / 10	1
9 / 10	10
10 / 10	48

Thematic Analysis of Open-Ended Responses

The open-ended responses were analysed using thematic coding. Three questions were analysed: 1) What is the most important lesson you learned from the video? 2) How can universities improve cyberbullying awareness among students? Moreover, 3) What improvements can be made to make the video more effective for students?

Two dominant themes emerged for the first question. The first theme was responsible and respectful online behaviour, while the second theme was the seriousness and impact of cyberbullying on victims. Each theme appeared in 23 responses, representing 37.7% of respondents. This suggests that respondents mainly learned that online users should behave responsibly and that cyberbullying can negatively affect victims.

For the second question, the most common suggestion was for universities to organise awareness campaigns, talks, workshops, programmes, events, posters, or social media content. This theme appeared in 48 responses, representing 78.7% of respondents. Other suggestions included clearer reporting channels, university policies, enforcement, counselling support and responsible digital-use education. These findings indicate that respondents viewed cyberbullying awareness as a responsibility that should be supported institutionally, not only through individual awareness.

For the third question, 20 respondents (32.8%) stated that no improvement was needed, were unsure or left the response blank. However, several useful improvement themes were identified. Respondents suggested better

visuals, animation, and creativity; higher-quality video; more practical guidance and clearer examples; real-life examples, testimonials, scenarios, or victim stories; and shorter, more student-friendly video delivery. These responses suggest that although the video was perceived positively, its future version could be improved by making the content more practical, relatable and engaging.

DISCUSSION

The findings show that respondents positively perceived the CyberAware AI video. Respondents reported a high level of understanding after watching the video ($M = 4.38$). They also showed high awareness of cyberbullying ($M = 4.39$), while the perceived effectiveness of the video was also high ($M = 4.35$). This indicates that the video helped respondents understand cyberbullying, its effects, and suitable actions that can be taken when facing cyberbullying situations.

Besides, the knowledge quiz results support the survey findings. Respondents achieved a mean score of 9.62 out of 10, which shows strong post-video knowledge among most respondents. The open-ended responses also showed similar findings. Respondents mainly highlighted responsible online behaviour, the seriousness of cyberbullying and the importance of reporting incidents.

However, the findings also show that the CyberAware AI video can still be improved. Although the perceived effectiveness score was high, the message clarity item recorded the lowest mean within this element. Respondents also suggested adding clearer explanations, real-life examples, better visuals and audio. Therefore, future versions of the video should be clearer and more relatable.

Overall, the CyberAware AI video has potential as a digital awareness tool for university students. However, since this study used only a post-video survey design, the findings should be interpreted as perceived effectiveness and post-video awareness, not as causal evidence of improvement. Future studies should use a pre-test and post-test design with a larger sample to measure actual changes in cyberbullying awareness.

The positive findings may be attributed to the scenario-based and multimedia design of the CyberAware AI video, which combines visual storytelling, practical examples, and reflective learning elements. Previous studies have suggested that interactive digital learning tools improve engagement and knowledge retention among learners. The present findings suggest that integrating multimedia-based awareness interventions may support cyberbullying prevention initiatives among university students.

CONCLUSION AND RECOMMENDATIONS

Cyberbullying brings major effects as it manifests physically and emotionally, leading to several problems such as depression, stress, negative emotions, and even suicidal thoughts (Patchin & Hinduja, 2017). Recognising this devastating issue, the researcher developed an innovative approach using an AI interactive video and a kit to not only address but also combat cyberbullying. This study emphasises the importance of maintaining mental well-being and the ethical use of online and social media platforms, thereby increasing awareness of the dangers of cyberbullying (Mitchell et al., 2021). It is hoped that these meaningful initiatives deliver benefits and are crucial for achieving good mental health and well-being, which are needed for health, sustainable happiness, and the fostering of a positive cyber-culture among internet users in Malaysia. Profoundly, we can improve our mental health stability and personal well-being by stopping cyberbully (Kowalski et al., 2018).

The study found that advanced interactive videos and kits are effective mediums not only for curbing cyberbullying but also for providing support and spreading awareness among netizens. These tools promote positive messages on mental health and well-being, educate individuals on how to combat cyberbullying, and ultimately reduce cases of depression and suicidal thoughts among those affected. In conclusion, interactive video with a mix of AI elements and kits is effective at delivering valuable information and guidance to combat cyberbullying. It also attracts the younger generation to be conscious, alert, and know how to stand up to cyberbullying. The content conveys not only the importance of keeping mental health stability and the sustainability of well-being but also provides essential steps for victims to fight against cyberbullying.

In addition, it is recommended to continue innovative approaches such as interactive videos and kits, to raise awareness and promote health security, emphasising the value of mental stability and well-being (Tokunaga, 2010). These advanced AI interactive videos can also help in reducing cyberbullying cases in Malaysia. Additionally, Cantone et al. (2015) emphasized that future research should focus on expert evaluations of the effectiveness of interactive video and kits for continuous improvement and better health outcomes for internet users. In a broader view, this study highlights the importance of addressing cyberbullying, providing support, and promoting healthy well-being in the digital world. As a matter of fact, continued efforts and research in this area are crucial for creating a positive, peaceful, and secured cyberspace for all people.

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