

# The Development of Mockumentary Short Film to Support Secondary School Students' Perceived Awareness, Empathy, and New Perspectives on Cyberbullying Toward LGBTQ+ Peers

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## Abstract

Cyberbullying presents considerable psychological, emotional, and social challenges for LGBTQ+ adolescents. This study aimed to develop and evaluate a mockumentary short film as an educational media product to support secondary school students' perceived awareness, empathy, and new perspectives regarding cyberbullying toward LGBTQ+ peers in the Bangkok Metropolitan Area. A developmental research method (Type I) guided the systematic design, development, and evaluation of the mockumentary short film across three sequential phases: 1) design phase involving 65 LGBTQ+ secondary school students who shared prevalent cyberbullying experiences to inform the film's conceptualization and narrative construction; 2) development phase in which the short film was produced and formatively evaluated through expert review to assess content and media quality; and 3) evaluation phase employing a one-group posttest-only design with 50 general secondary school students who viewed the completed film and provided immediate post-viewing responses regarding awareness, empathy, and new perspectives on cyberbullying toward LGBTQ+ peers. This evaluation approach was intended to capture immediate post-viewing perceptions rather than causal intervention effects while addressing ethical considerations, as implementation occurred outside formal classroom instruction. The findings identified body shaming, sexual harassment, and gender inequality as the most prevalent forms of cyberbullying in digital environments. The development process resulted in an approximately 11-minute short film. Expert ratings suggested a 'very good level' of media quality and a 'good level' of content quality. Post-viewing results indicated ratings significantly above the neutral midpoint of the five-point scale (one-sample t-tests,  $p < .001$ ), reflecting positive immediate perceptions rather than evidence of effectiveness.

**Keywords:** LGBTQ+ youth, digital citizenship, adolescent education, social interaction, preventive education

## 1. Introduction

In recent years, the rapid growth of digital communication platforms has significantly transformed the way adolescents interact, creating both opportunities and challenges for youth in the digital age (Ehrenreich, George, Burnell, & Underwood, 2021; Napaporn, Maneewan, Thamwipat, & Nittayathamkul, 2023). While these platforms facilitate social connection and self-expression, they also expose users to the significant risk of cyberbullying, which systematic reviews suggest may affect roughly one in five to one in three adolescents worldwide, depending on definitions, measures, and context, and is now recognized as a serious public health issue linked to psychological, emotional, and academic difficulties (Zhu, Huang, Evans, & Zhang, 2021).

This is particularly true for LGBTQ+ youth, who often face unique forms of online harassment due to their sexual orientation and gender identity (Abreu & Kenny, 2018; Elipe et al., 2018). LGBTQ+ youth are particularly vulnerable to cyberbullying due to the added pressures of minority stress, which includes experiences of prejudice, discrimination, and social isolation and has been associated with higher rates of anxiety, depression, and lower self-esteem, underscoring the urgent need for targeted intervention strategies (Abreu & Kenny, 2018).

Cyberbullying can take many forms, including verbal abuse, exclusion, rumor spreading, and public shaming, which are

often amplified on widely used social media platforms. Research indicates that LGBTQ+ adolescents are more likely to experience cyberbullying compared to their heterosexual peers, with prevalence among LGBTQ+ youth ranging from about 10.5% to 71.3% across studies (Abreu & Kenny, 2018). National survey data from the 2017 Youth Risk Behavior Survey further show that sexual minority youth have significantly higher odds of experiencing both in-school bullying and cyberbullying than heterosexual youth, with bisexual youth at particularly high risk of cyberbullying (Angoff & Barnhart, 2021).

Empathy, particularly cognitive and affective empathy, has been identified as a critical protective factor against cyberbullying, as it has been linked to lower levels of online aggression and greater peer understanding (Zych, Baldry, Farrington, & Llorent, 2019). Studies have shown that higher levels of cognitive and affective empathy can reduce the likelihood of both perpetrating and experiencing cyberbullying (Del Rey et al., 2016). Interventions that focus on enhancing empathy have been associated with reductions in cyberbullying behaviors and improvements in peer relationships in school settings.

Given the protective role of empathy in cyberbullying contexts, media-based educational approaches have been proposed as a promising strategy for promoting safer online interactions (Goodwin et al., 2021; Rueb et al., 2024). Mockumentary films may be well suited to this purpose because they combine realism with narrative storytelling, which may support perspective-taking and reflective engagement among adolescent audiences (Goodwin et al., 2021; Soto-Sanfiel et al., 2021). Mockumentary films offer a narrative-based format for engaging audiences with complex social issues such as cyberbullying. This format allows for creative storytelling that can elicit strong emotional responses, promote perspective-taking, and challenge harmful stereotypes, making it a promising format for raising awareness and fostering empathy among young audiences (Schultze-Krumbholz et al., 2016).

The aim of this research is to develop and evaluate the quality of a mockumentary short film as a narrative-based educational media product designed to support perceived awareness, empathy, and new perspectives related to cyberbullying among secondary school students. Rather than positioning LGBTQ+ youth solely as recipients of support, the educational media is intended to shape more respectful and responsible online attitudes and behaviors among the general student population in this sample toward LGBTQ+ peers. By integrating insights from prior research on empathy and cyberbullying, this study frames narrative-based media as a tool for supporting peer understanding and more inclusive digital interactions within secondary school contexts.

Ultimately, the findings of this study are expected to inform the design of narrative-based educational media products that emphasize peer responsibility, empathy development, and digital citizenship in diverse school settings. By examining how general students perceive and interact with LGBTQ+ peers in online environments, the results may support the development of inclusive learning activities, teacher professional development, and school-based initiatives aimed at preventing cyberbullying. Thus, this approach contributes to fostering school cultures in which students are encouraged to reflect on the consequences of their online behavior, respond to cyberbullying constructively, and participate in creating safer and more inclusive digital spaces for LGBTQ+ adolescents.

## **2. Research Objectives**

2.1 To explore common cyberbullying issues encountered by LGBTQ+ secondary school students in the Bangkok Metropolitan Area on social media platforms.

2.2 To develop and assess the quality of the mockumentary short film to support secondary school students' perceived awareness, empathy, and new perspectives on cyberbullying toward LGBTQ+ peers.

2.3 To measure students' post-viewing perceptions of awareness, empathy, and new perspectives regarding cyberbullying toward LGBTQ+ peers after viewing the mockumentary short film.

## **3. Research Questions**

RQ1: What types of cyberbullying do LGBTQ+ secondary school students in Bangkok encounter on social media?

RQ2: How is the quality of the developed mockumentary short film evaluated in terms of media quality and content quality by experts?

RQ3: How do secondary school students report their post-viewing perceptions of awareness, empathy, and new perspectives regarding cyberbullying toward LGBTQ+ peers after viewing the developed mockumentary short film?

## **4. Literature Review**

### **4.1 Cyberbullying Among LGBTQ+ Youth**

LGBTQ+ youth are disproportionately affected by cyberbullying compared to their heterosexual peers, with studies indicating that 10.5% to 71.3% of LGBTQ+ adolescents experience some form of online harassment, a range that varies

across contexts and measurement approaches (Abreu & Kenny, 2018). Such exposure has been associated with heightened risks of depression, suicidal ideation, reduced self-esteem, and academic difficulties, consistent with broader global evidence that cyberbullying victimization is linked to anxiety, depression, and social withdrawal among adolescents (Abreu & Kenny, 2018; Wiederhold, 2024; Zhu, Huang, Evans, & Zhang, 2021). Recent work on cyberbullying prevention has highlighted the importance of addressing cybervictimisation related to sexual and gender diversity, as well as the need for interventions that consider how online aggression can target both individuals and broader communities (Abreu & Kenny, 2018; Börsting, Schwarze, Theophilou, Sánchez-Reina, Odakura, Taibi, & Eimler, 2025). This elevated risk is often linked to the unique vulnerabilities faced by sexual minority youth, including discrimination, social isolation, and a lack of supportive peer networks, as conceptualized within minority stress theory, which explains how stigma and structural prejudice intensify psychological vulnerability among sexual minority populations (Abreu & Kenny, 2018; Meyer, 2003).

#### *4.2 Digital Interventions for Cyberbullying*

Effective digital interventions for addressing cyberbullying often include empathy training, digital citizenship education, and social skill development. Systematic reviews of cyberbullying interventions show that common effective components include awareness training, coping skills, communication skills, and interactive serious games, with programs generally producing small but significant reductions in cyberbullying perpetration and victimization (Hutson, Kelly, & Militello, 2017; Zhu, Huang, Evans, & Zhang, 2021). Evidence suggests that programs are more successful when delivered by technology savvy content experts rather than teachers and when they use interactive modalities such as role play, peer discussion, or game based learning (Hutson, Kelly, & Militello, 2017; Zhu, Huang, Evans, & Zhang, 2021). Global reviews also emphasize multi level strategies engaging youth, parents, and schools, while noting that many studies have short follow up periods and limited data from low and middle income countries (Wiederhold, 2024; Zhu, Huang, Evans, & Zhang, 2021). However, questions remain regarding the sustainability, contextual adaptability, and long-term attitudinal impact of such interventions, particularly within diverse school environments (Hutson, Kelly, & Militello, 2017; Wiederhold, 2024; Zhu, Huang, Evans, & Zhang, 2021).

#### *4.3 The Role of Empathy in Cyberbullying Prevention*

Empathy is widely discussed as a protective factor against cyberbullying because it reduces the likelihood of both perpetrating and experiencing online aggression by fostering emotional connection and perspective-taking among peers. (Hutson, Kelly, & Militello, 2017; Zhu, Huang, Evans, & Zhang, 2021). Higher levels of cognitive and affective empathy are frequently identified as protective factors against involvement in cyberbullying, and are therefore prioritized as core socio emotional targets within prevention programs (Zhu, Huang, Evans, & Zhang, 2021). Systematic reviews of interventions report that many school based programs explicitly incorporate empathy training, communication skills, and coping skills as central components, often alongside digital citizenship content (Hutson, Kelly, & Militello, 2017; Wiederhold, 2024). Although some experimental empathy training modules show mixed effects on immediate empathy gains, they provide important design lessons for creating more engaging, culturally adaptable trainings within digital environments (Wiederhold, 2024). This underscores the importance of incorporating structured empathy development within any digital intervention aimed at promoting safer online environments (Hutson, Kelly, & Militello, 2017; Wiederhold, 2024; Zhu, Huang, Evans, & Zhang, 2021).

#### *4.4 Mockumentary Films as Narrative-Based Educational Media*

Mockumentary films, which blend factual content with fictional storytelling, offer a narrative-based format for exploring complex social issues such as cyberbullying. Drawing on narrative transportation theory, emotionally immersive storytelling may influence attitudes by enhancing identification with characters and reducing counter-arguing (Green & Brock, 2000). While limited research exists specifically on mockumentaries as a tool for cyberbullying prevention, media based and narrative digital interventions—including videos, dramatizations, and serious games—are increasingly highlighted as promising modalities for raising awareness, building empathy, and strengthening digital citizenship in school aged youth (Abreu & Kenny, 2018; Hutson, Kelly, & Militello, 2017; Wiederhold, 2024; Zhu, Huang, Evans, & Zhang, 2021). These formats align with recommendations that interventions use interactive, engaging media and address both individual skills (e.g., empathy, coping) and broader social norms (Abreu & Kenny, 2018; Wiederhold, 2024; Zhu, Huang, Evans, & Zhang, 2021).

Thus, the existing literature underscores the need for educational interventions that promote empathy, perspective-taking, and responsible online behavior within diverse school communities. Three gaps remain particularly salient: (1) the persistent prevalence of identity-based cyberbullying among LGBTQ+ youth (Abreu & Kenny, 2018; Börsting, Schwarze, Theophilou, Sánchez-Reina, Odakura, Taibi, & Eimler, 2025), (2) the limited engagement of general student populations as active agents in shaping inclusive digital norms (Abreu & Kenny, 2018; Wiederhold, 2024; Zhu, Huang, Evans, & Zhang, 2021) and (3) the underexplored application of mockumentary storytelling as a structured educational media

intervention despite the promise of narrative and digital approaches (Abreu & Kenny, 2018; Wiederhold, 2024; Zhu, Huang, Evans, & Zhang, 2021). Given prior research suggesting the value of empathy-focused approaches and the narrative potential of mockumentary films, this study responds to this gap by employing a mockumentary short film as an educational media product among secondary school students in relation to LGBTQ+ peers.

## 5. Methodology

### 5.1 Research Design

This study employed a Developmental Research (Type I) design to guide the systematic design, development, and evaluation of a mockumentary short film as an educational media product (Richey & Klein, 2007). Type I developmental research emphasizes product design, formative evaluation, and refinement rather than experimental testing of causal effects. Consistent with the research objectives, the study was conducted in three sequential phases: (1) a design phase that involved exploratory inquiry into cyberbullying experiences among LGBTQ+ secondary school students to inform the film's conceptualization and narrative structure; (2) a development phase that focused on the production of the mockumentary short film and structured expert validation to assess content and media quality prior to revision and refinement; and (3) an evaluation phase that employed a one-group posttest-only design to examine participants' self-reported perceptions of awareness, empathy, and new perspectives on cyberbullying after viewing the film.

Given the developmental nature of the study, the posttest-only design was employed to capture immediate evaluative responses to the media product rather than to establish causal effectiveness. This design aligns with the objectives of Type I developmental research, which prioritizes product refinement and formative validation over experimental comparison. It was considered ethically appropriate because the implementation occurred outside formal classroom settings (Broesch, Lew-Levy, Kärtner, Kanngiesser, & Kline, 2023).

### 5.2 Participants

Participants were categorized into three distinct groups based on their roles in the developmental process, as follows:

1. The first group comprised 65 LGBTQ+ secondary school students aged 13–18 from the Bangkok Metropolitan Area, Thailand, selected through purposive sampling to represent diverse gender identities, sexual orientations, and online experiences (Andrade, 2021). This group served as exploratory informants by reporting commonly encountered forms of cyberbullying on social media platforms, which informed the conceptualization and narrative development of the mockumentary.
2. The second group comprised seven experts selected through purposive sampling (Andrade, 2021), including two media experts, two content experts, and three health education experts. Experts were eligible if they had at least 5 years of professional experience and prior work related to adolescent health, digital media, or cyberbullying prevention. Potential experts were identified through professional networks and institutional affiliations and were invited. From those who met the criteria and agreed to participate, seven experts were purposively selected to ensure representation across media production, educational content development, and health education domains. The three health education experts ( $n = 3$ ) were responsible for content validation using the Index of Item–Objective Congruence (IOC), whereas the two content experts ( $n = 2$ ) and two media experts ( $n = 2$ ) conducted the formative evaluation of the mockumentary using the MQEF.
3. The third group comprised 50 secondary school students aged 13–18 from the Bangkok Metropolitan Area, Thailand, who volunteered to participate and were recruited via convenience sampling (Andrade, 2021). This group viewed the completed mockumentary short film and reported their post-viewing perceptions through assessment instruments, contributing to the evaluation of awareness, empathy, and perspectives on cyberbullying and digital interactions.

### 5.3 Procedure

The production of the mockumentary short film followed a structured 3P approach (Pre-Production, Production, Post-Production). This approach included the following phases:

1. Pre-Production: The pre-production phase focused on conceptualizing the narrative and designing the visual style of the film:
  - 1.1 Script and Character Design: Developed scripts based on real-life experiences of LGBTQ+ individuals, emphasizing themes of resilience and self-acceptance. The primary characters, "Frame" and "Kao Tang", were designed to reflect common challenges faced by LGBTQ+ youth, while supporting characters like "Ming", "James", and "Homeroom Teacher" provided additional perspectives on bullying and social dynamics.
  - 1.2 Scene and Setting Planning: Identified key locations, including dormitories, schools, and logistics companies, to portray the characters' personal and professional lives. These settings were chosen to emphasize the intersections of identity and online presence.

- 1.3 Technical Preparation: Created detailed storyboards and shot lists to guide the filming process, ensuring alignment with the intended emotional tone and narrative structure. Conducted casting and rehearsals to prepare the actors for consistent and contextually appropriate performances.
- 1.4 Symbolism and Fantasy Elements: Incorporated symbolic imagery, such as unicorns representing diversity and resilience, to support thematic representation within the narrative. Visual effects like 'Character Auras' were planned to reflect the internal struggles of the characters (Kwangmuang, Jarutkamolpong, Duangngern, Gessala, & Sarakan, 2024).
2. Production: The production phase involved capturing authentic performances and visually compelling scenes to convey the film's central messages:
  - 2.1 Filming: Used professional cameras and audio equipment to capture clear and technically stable footage, emphasizing natural lighting and realistic set designs to maintain the mockumentary style. Figure 1 illustrates the studio setup during test shoots conducted in the production phase.
  - 2.2 Directing and Acting: Focused on unscripted dialogue and spontaneous interactions, allowing actors to convey naturalistic emotions and experiences. Integrated character auras and symbolic gestures to visually represent emotional states.
  - 2.3 Cinematography: Employed dynamic camera angles and close-up shots to capture the raw, unfiltered nature of the characters' journeys. Used handheld cameras for an immersive, documentary-style feel.
  - 2.4 Real-Time Adjustments: Made on-the-spot adjustments to scene compositions and actor performances based on emotional tone and audience perspective, ensuring consistency with the planned structure.
3. Post-Production: The post-production phase aimed to refine the raw footage into a cohesive, emotionally resonant final product:
  - 3.1 Video Editing and Color Grading: Used Adobe Premiere Pro® for editing, including scene cutting, color correction, and audio enhancement to ensure visual and emotional consistency.
  - 3.2 Motion Graphics and Visual Effects: Created 2D motion graphics and title sequences using Adobe After Effects®, incorporating AI tools like Roto Brush 3.0 for seamless object isolation and animated text overlays.
  - 3.3 Sound Design and Audio Mastering: Processed dialogue and background sound using Adobe Audition®, applying AI-based noise reduction and voice enhancement to ensure clarity and emotional resonance.
  - 3.4 Final Review and Export: Conducted cultural sensitivity reviews with LGBTQ+ community members to review narrative appropriateness and representation. Exported high-definition versions for online distribution and developed promotional materials using Adobe Firefly®.

#### 5.4 Instruments

To achieve the research objectives, four key instruments were developed and implemented in this study:

1. Cyberbullying Issue Survey (CIS): This survey was designed to identify the types and frequencies of cyberbullying and to capture self-reported emotional responses associated with these experiences among LGBTQ+ secondary school students in the Bangkok Metropolitan Area. It includes selected-response items (primarily checkboxes) and open-ended questions designed to gather information about the cyberbullying issue. As the CIS consisted of a checklist and descriptive items rather than scaled measures, internal consistency reliability was not calculated. The instrument was used for exploratory and descriptive purposes to inform the narrative construction of the mockumentary short film.
2. Developed Mockumentary Short Film: An 11.01-minute mockumentary short film was created as an educational media product intended to support perceived awareness, empathy, and new perspectives on cyberbullying. The film was developed through three iterative cycles. Version 1 was produced based on themes derived from the exploratory phase. Following structured expert review, revisions were incorporated to improve narrative clarity and content alignment, resulting in Version 2. A subsequent refinement process led to Version 3, which was implemented in the field testing phase. This iterative refinement process aligns with the formative evaluation principles of Type I developmental research. The production process included scriptwriting, character development, scene design, and technical preparation to represent themes identified in the exploratory phase.
3. Mockumentary Quality Evaluation Form (MQEF): The MQEF was developed as a structured expert-based evaluation instrument comprising two distinct components: (1) Content Quality Evaluation and (2) Media Quality Evaluation. Content validity of the MQEF was established by three experts using the Index of Item–Objective Congruence (IOC), with item-level IOC values ranging from 0.67 to 1.00 and meeting the acceptable

criterion ( $\text{IOC} \geq 0.50$ ). The Content Quality Evaluation consisted of six items and was administered to two content experts to assess the quality and appropriateness of the narrative and thematic elements of the mockumentary. The Media Quality Evaluation consisted of ten items organized into three domains: (1) Visual Design and Cinematography, (2) Audio Design, and (3) Motion Graphics. This component was administered to two media experts to assess technical and production-related aspects of the film. All items were rated using a five-point Likert scale (5 = Very Good, 4 = Good, 3 = Moderate, 2 = Low, 1 = Very Low), with additional open-ended sections for qualitative feedback. Because the MQEF was used for expert-based formative evaluation within a developmental research framework, rather than for measuring latent constructs across large samples, internal consistency reliability was not calculated. The results are therefore interpreted as expert judgments intended to inform product refinement. For descriptive interpretation, the mean scores were classified into five levels as follows: 4.50–5.00 = Very Good, 3.50–4.49 = Good, 2.50–3.49 = Moderate, 1.50–2.49 = Low, and 1.00–1.49 = Very Low. These criteria were used to facilitate the interpretation of expert evaluations regarding both content quality and media quality of the mockumentary.

4. **Post-Viewing Perception Scale (PVPS):** The PVPS was developed as a three-item composite scale designed to assess overall post-viewing perceptions related to cyberbullying toward LGBTQ+ peers. The scale captures three theoretically related facets of immediate response: (1) awareness of cyberbullying issues, (2) empathy toward individuals experiencing online harassment, and (3) openness to new perspectives on digital interactions. Each facet was measured using a single Likert-scale item. Content validity was established through expert review by three health education specialists using the Index of Item–Objective Congruence (IOC), with item-level IOC values ranging from 0.67 to 1.00 and meeting the acceptable criterion ( $\text{IOC} \geq 0.50$ ). Preliminary internal consistency reliability of the three-item composite index was examined using Cronbach’s alpha based on pilot testing responses ( $n = 30$ ) conducted prior to the main field testing phase, yielding an acceptable coefficient ( $\alpha = 0.75$ ). For inferential analysis, a composite score was computed by averaging the three items to represent overall post-viewing perception. Example items included: “I have a clearer understanding of the challenges faced by individuals with diverse gender identities in cyberbullying contexts,” “I feel greater empathy toward individuals with diverse gender identities who experience online harassment,” and “I have gained new perspectives on the impacts of cyberbullying on individuals with diverse gender identities.” All items were rated on a five-point Likert scale (5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Strongly Disagree). For descriptive interpretation, mean scores of 4.50–5.00 were interpreted as “Strongly Agree,” 3.50–4.49 as “Agree,” 2.50–3.49 as “Neutral,” 1.50–2.49 as “Disagree,” and 1.00–1.49 as “Strongly Disagree.” These criteria were used solely for descriptive classification of participants’ responses.

### 5.5 Data Collection

Data were collected in three stages using both quantitative and qualitative methods. First, quantitative data were gathered through a survey of cyberbullying experiences among LGBTQ+ secondary school students to inform the conceptualization and narrative construction of the mockumentary short film. Second, following production, a formative evaluation based on expert judgment was conducted to assess the film’s content and media quality prior to final refinement. Third, a one-group posttest-only evaluation was conducted with participating secondary school students who volunteered to take part in the study to examine self-reported perceptions immediately after viewing the film. The film was shared via an unlisted YouTube link, and participants were instructed to watch the full 11.01-minute mockumentary independently prior to completing the post-viewing assessment. Instructions emphasized that responses should reflect immediate perceptions after viewing. Qualitative data were obtained from open-ended survey responses, expert feedback, and participant reflections to provide contextual support for the descriptive interpretation of the quantitative findings rather than to determine causal effects.

### 5.6 Data Analysis

Data analysis employed both quantitative and qualitative techniques. Quantitative data from the Cyberbullying Issue Survey were analyzed using descriptive statistics, including frequencies and percentages, to identify common forms of cyberbullying. Expert evaluation data were analyzed using mean scores and standard deviations to examine the content and media quality of the mockumentary short film. Qualitative data from open-ended responses and expert feedback were analyzed thematically to support interpretation of the quantitative findings, providing contextual elaboration rather than causal inference.

Posttest-only data were analyzed descriptively to report levels of awareness, empathy, and new perspectives on cyberbullying after viewing the film. One-sample *t*-tests were conducted to examine whether mean scores differed significantly from the neutral midpoint of the five-point Likert scale (test value = 3). The midpoint comparison (test value = 3) was intended as descriptive benchmarking against neutrality rather than as evidence of causal impact. Statistical

significance was set at  $p < .05$ . In addition, 95% confidence intervals (95% CI) for the mean scores were calculated to estimate the precision of the observed means and to determine whether the confidence intervals excluded the neutral midpoint of the scale.

Effect sizes were calculated using Cohen's  $d$  (Cohen, 1988) to indicate the magnitude of deviation from the neutral reference value. In this context, Cohen's  $d$  was computed as the standardized difference between the observed mean and the neutral midpoint ( $d = [M - 3] / SD$ ). Because the comparison involved deviation from a neutral reference point rather than between-group differences, effect sizes were interpreted as standardized deviations from the midpoint. Effect size magnitudes were considered with reference to the extended benchmarks proposed by Sawilowsky (2009). However, because these benchmarks were developed for between-group or pre-post comparisons, their application to deviations from a scale midpoint should be interpreted with caution. All quantitative analyses were conducted using Jamovi.

### 5.7 Ethical Considerations

This study was approved by the Institutional Review Board (IRB) of King Mongkut's University of Technology Thonburi (KMUTT) under the expedited review process (Approval No. KMUTT-IRB-2022-028) and conducted in accordance with the ethical principles of respect for persons, beneficence, and justice. Informed consent was obtained from all participants, and for those under 18 years of age, parental/guardian consent and participant assent were secured prior to data collection. Participation was entirely voluntary, and participants were informed of their right to withdraw at any time without penalty. All data were collected anonymously or de-identified, securely stored, and reported only in aggregate form to protect confidentiality. Given the sensitive nature of cyberbullying and gender-related content, all research procedures and media materials were designed to be age-appropriate, culturally sensitive, and to minimize potential psychological discomfort among participants.

## 6. Results

### 6.1 Common Cyberbullying Issues Encountered by LGBTQ+ Secondary School Students

The results of the Cyberbullying Issue Survey (CIS) revealed that Body Shaming was the most frequently reported form of cyberbullying, with 92.3% (60 out of 65) of LGBTQ+ secondary school students in the Bangkok Metropolitan Area identifying it as a common issue. This was followed by Sexual Harassment (83.1%, 54 students) and Gender Inequality (81.5%, 53 students), as shown in Table 1. These findings indicate a high frequency of identity-based bullying within the surveyed group, reflecting challenges reported by LGBTQ+ youth in digital environments.

Table 1. Prevalence of Common Cyberbullying Issues Among LGBTQ+ Secondary School Students ( $n = 65$ )

| Rank | Cyberbullying Issue | Frequency | Percentage (%) |
|------|---------------------|-----------|----------------|
| 1    | Body Shaming        | 60        | 92.3%          |
| 2    | Sexual Harassment   | 54        | 83.1%          |
| 3    | Gender Inequality   | 53        | 81.5%          |

### 6.2 The Developed Mockumentary Short Film

Table 2 presents the primary characters featured in the developed mockumentary short film, highlighting their narrative roles, personalities, key characteristics, and functions within the storyline. The protagonist, Frame, is portrayed as a bold, emotional, and reactive online seller who struggles with the unintended consequences of becoming a bully herself after being targeted online. Her supportive partner, Kao Tang, provides emotional stability and encourages positive conflict resolution, emphasizing the importance of supportive relationships in overcoming bullying. Supporting characters, including Ming, James, and the Homeroom Teacher, serve critical narrative functions that reflect the complex social dynamics of bullying. Ming represents the pressure to confront bullies, while James symbolizes the real-world challenges of aggressive behavior in educational settings. The Homeroom Teacher illustrates how signs of harassment may sometimes be overlooked in school contexts, contributing to the continued challenges faced by vulnerable students. These characters collectively illustrate the multifaceted nature of bullying and the emotional challenges faced by LGBTQ+ youth in digital environments.

Figure 2 presents key scenes from the developed mockumentary short film "3 Days with Them," which explores the challenges faced by LGBTQ+ youth in digital environments. The film highlights the emotional impact of online bullying through character portrayals informed by participant-reported experiences and real-life scenarios, including live streaming, social media interactions, and personal reflections.

The scenes illustrate critical moments in the narrative, such as the pressures of online fame, the spread of harmful comments, and the emotional struggles that arise from cyberbullying. One prominent storyline involves the viral hashtag "#เจมส์เฟรม" (#JamesFrame), which represents the public conflict between the characters James and Frame, reflecting the real-world consequences of online harassment and social judgment.

Symbolic elements, like the repeated use of hashtags and references to emotional loops (LOOPLESS), emphasize the cyclical nature of online harassment. The final frames challenge viewers to reflect on their own actions with provocative questions like "คุณคิดว่าเรื่องนี้ใครเป็นคนผิด?" ("Who is to blame in this story?"), reinforcing the film's central message about the importance of empathy and self-awareness in digital interactions.

Table 2. Character Design and Narrative Roles in the Developed Mockumentary Short Film

| Character        | Role                 | Personality                       | Key Characteristics                                                                                                                      | Function in the Narrative                                                                                                                 |
|------------------|----------------------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Frame            | Protagonist          | Bold, emotional, reactive         | Online seller, victim of cyberbullying, often responds impulsively to negative comments, sometimes becoming a bully without realizing it | Represents the struggles of LGBTQ+ youth facing online harassment and the unintended consequences of emotional responses                  |
| Kao Tang         | Supportive Partner   | Caring, patient, supportive       | Frame's girlfriend, acts as a stabilizing influence, provides emotional guidance, encourages empathy and positive conflict resolution    | Represents the importance of supportive relationships in overcoming bullying and emotional challenges                                     |
| Ming             | Supportive Character | Bold, assertive, confrontational  | Frame's outspoken friend, encourages Frame to stand up for herself, sometimes leading to impulsive reactions                             | Represents the pressure to confront bullies and the potential for negative outcomes when emotional responses are not carefully considered |
| James            | Antagonist           | Aggressive, domineering, reckless | A school bully, often initiates conflict with others, represents the aggressive attitudes faced by LGBTQ+ youth in educational settings  | Reflects challenges commonly reported in real-world contexts and the potential psychological impact of bullying                           |
| Homeroom Teacher | Authority Figure     | Passive, inattentive, dismissive  | Is depicted as not fully addressing bullying situations and as overlooking signs of harassment, treats serious issues as mere "teasing"  | Highlights the systemic issues in educational institutions and the failure to protect vulnerable students                                 |



Figure 1. Behind the Scenes of the Mockumentary Filming - Test Shoot in a Studio Setup

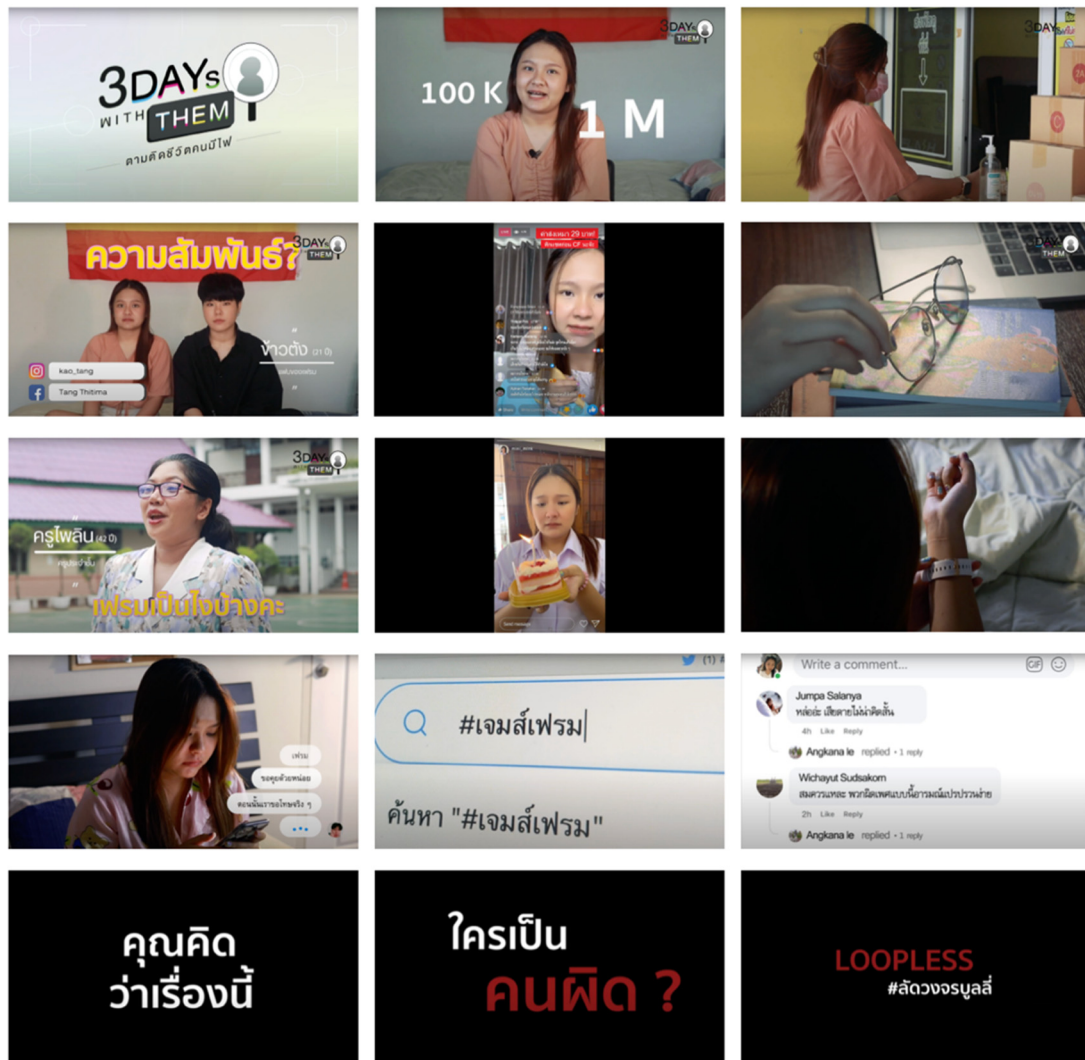


Figure 2. Key Scenes from the Developed Mockumentary Short Film - "3 Days with Them"

### 6.3 Evaluation of the Quality of the Produced Mockumentary Short Film

The quality evaluation of the developed mockumentary short film was conducted in two main areas: content quality and media quality. The content quality assessment examined the extent to which the film effectively conveyed diverse perspectives and engaged the intended adolescent audience, rather than evaluating intervention effectiveness. This included evaluating the ability to convey stories relevant to individuals with diverse gender identities ( $M = 4.50$ ,  $SD = 0.71$ ), raise awareness of cyberbullying issues ( $M = 4.50$ ,  $SD = 0.71$ ), and provide content appropriate for adolescent audiences ( $M = 3.00$ ,  $SD = 0.00$ ). The overall rating for content quality was 3.92 ( $SD = 0.35$ ), indicating a Good quality level, as summarized in Table 3. The comparatively lower mean score for content appropriateness ( $M = 3.00$ ) suggests opportunities for refinement to enhance age alignment prior to broader implementation. Preliminary expert feedback suggested that certain emotionally intense scenes required clearer contextual framing for younger adolescents. In response, minor revisions were implemented, including softening dialogue expressions, adjusting scene transitions to emphasize reflective learning, and adding contextual cues to guide interpretation.

The media quality assessment included evaluations of three main components: 1) Visual Design and Cinematography, 2) Audio Design, and 3) Motion Graphics, reflecting the technical execution of the film. The overall rating for media quality was 4.61 ( $SD = 0.21$ ), indicating a Very Good quality level, as summarized in Table 4.

Table 3. Content Quality Evaluation Results (n=2 content experts)

| Evaluation Criteria                                                                 | M    | SD   | Quality Level |
|-------------------------------------------------------------------------------------|------|------|---------------|
| 1. Ability to convey stories relevant to individuals with diverse gender identities | 4.50 | 0.71 | Very Good     |
| 2. Ability to raise awareness of cyberbullying issues                               | 4.50 | 0.71 | Very Good     |
| 3. Engaging and well-structured storytelling                                        | 4.00 | 0.00 | Good          |
| 4. Character appropriateness and age alignment                                      | 4.00 | 0.00 | Good          |
| 5. Ability to promote understanding of gender diversity                             | 3.50 | 0.71 | Good          |
| 6. Content appropriateness for adolescent audiences                                 | 3.00 | 0.00 | Moderate      |
| Overall Rating                                                                      | 3.92 | 0.35 | Good          |

Note: SD = 0.00 indicates identical ratings provided by the two expert evaluators.

Table 4. Media Quality Evaluation Results (n=2 media experts)

| Evaluation Criteria                                   | M    | SD   | Quality Level |
|-------------------------------------------------------|------|------|---------------|
| <b>Visual Design and Cinematography</b>               |      |      |               |
| 1. Appropriateness of artistic elements               | 4.00 | 0.00 | Good          |
| 2. Effective visual communication to target audiences | 5.00 | 0.00 | Very Good     |
| 3. Effective use of symbolism and visual metaphors    | 5.00 | 0.00 | Very Good     |
| 4. Color tone appropriateness for the target audience | 3.50 | 0.71 | Good          |
| <b>Audio Design</b>                                   |      |      |               |
| 1. Background music appropriateness                   | 4.50 | 0.71 | Very Good     |
| 2. Voice clarity and tone appropriateness             | 4.50 | 0.71 | Very Good     |
| 3. Sound effects appropriateness                      | 4.00 | 0.00 | Good          |
| <b>Motion Graphics</b>                                |      |      |               |
| 1. Consistency with the overall storyline             | 5.00 | 0.00 | Very Good     |
| 2. Enhancement of visual interest and storytelling    | 5.00 | 0.00 | Very Good     |
| 3. Creativity in design and execution                 | 5.00 | 0.00 | Very Good     |
| Overall Rating                                        | 4.61 | 0.21 | Very Good     |

Note: SD = 0.00 indicates identical ratings provided by the two expert evaluators.

#### 6.4 Levels of Perceived Awareness, Empathy, and New Perspectives After Viewing the Film

Table 5 summarizes participants' post-viewing perceptions across the three measured dimensions (n = 50). Descriptive statistics, 95% confidence intervals, and one-sample t-tests were used to compare mean scores against the neutral midpoint of the five-point Likert scale (test value = 3), serving as a descriptive benchmark.

At the composite level, the overall PVPS mean was 4.43 (SD = 0.33, 95% CI [4.33, 4.52]), which was significantly higher than neutrality,  $t(49) = 30.55$ ,  $p < .001$ , with a standardized deviation of  $d = 4.32$ . At the item level, participants reported high levels of awareness (M = 4.38, SD = 0.67, 95% CI [4.19, 4.57]), empathy (M = 4.34, SD = 0.72, 95% CI [4.14, 4.54]), and new perspectives (M = 4.56, SD = 0.58, 95% CI [4.40, 4.73]). All mean scores were significantly above the neutral midpoint,  $t(49) = 13.21$ – $18.99$ ,  $p < .001$ , and the confidence intervals did not include the value 3.

Table 5. Descriptive Statistics and One-Sample t-Test Results for Post-Viewing Perceptions (n=50)

| Dimension                | M    | SD   | 95% CI       | t     | df | p      | Cohen's d |
|--------------------------|------|------|--------------|-------|----|--------|-----------|
| Composite (Overall PVPS) | 4.43 | 0.33 | [4.33, 4.52] | 30.55 | 49 | < .001 | 4.32      |
| Awareness                | 4.38 | 0.67 | [4.19, 4.57] | 14.58 | 49 | < .001 | 2.06      |
| Empathy                  | 4.34 | 0.72 | [4.14, 4.54] | 13.21 | 49 | < .001 | 1.86      |
| New Perspectives         | 4.56 | 0.58 | [4.40, 4.73] | 18.99 | 49 | < .001 | 2.69      |

Note: Test value = 3 (neutral midpoint of the five-point Likert scale). Confidence intervals represent 95% intervals around the sample mean. Effect sizes (Cohen's d) reflect standardized deviations from the neutral midpoint rather than between-group differences.

These findings indicate positive immediate post-viewing perceptions rather than evidence of effectiveness. The midpoint comparison was used for descriptive benchmarking against neutrality, not as an estimate of causal impact. Effect sizes ( $d = 1.86$ – $2.69$  for item-level scores;  $d = 4.32$  for the composite index) reflect standardized deviations from a fixed scale midpoint rather than between-group or pre-post differences. Because averaging items reduces variability in the composite score, the resulting standardized deviation can appear numerically large and should not be interpreted as an intervention effect size.

## 7. Discussion

The findings of this study highlight the high proportion of reported cyberbullying experiences within the present sample of LGBTQ+ secondary school students in the Bangkok Metropolitan Area, with Body Shaming (92.3%), Sexual

Harassment (83.1%), and Gender Inequality (81.5%) identified as the most prevalent forms. These findings not only address the first research objective but also reinforce existing literature suggesting that identity-based harassment remains a persistent challenge for sexual minority youth in digital environments. Beyond documenting victimization, these findings underscore the critical role of peer behavior within digital networks, particularly the actions and attitudes of the participating students toward LGBTQ+ peers. These patterns may be interpreted in light of Connectivist perspectives (Siemens, 2005), which conceptualize social media platforms as networked environments where peer interactions contribute to the formation of norms and behavioral responses. Within these networked environments, the ways in which general students interpret, respond to, or participate in digital interactions may either reinforce or mitigate harm, with possible implications for self-concept and psychological well-being.

The production process, guided by the 3P approach (Pre-Production, Production, and Post-Production), was informed by concepts drawn from Symbolic Interactionism (Mead, 1934) and Framing Theory (Goffman, 1974) to construct narratives that reflect LGBTQ+ lived experiences and invite perspective-taking among general student audiences. During the Pre-Production phase, symbolic elements such as unicorn imagery were used to represent diversity and resilience, encouraging viewers to reinterpret identity and difference through shared social meanings. The Production phase emphasized authentic performances to foster emotional engagement, while the Post-Production phase employed narrative framing and symbolic cues to highlight power dynamics in digital interactions. Rather than testing these theories empirically, the study drew on them conceptually to guide narrative construction and media design.

Expert evaluations suggest that the film's rich multimedia elements may have supported attitudinal engagement among viewers, a pattern that aligns conceptually with Media Richness Theory (Daft & Lengel, 1986). The high Media Quality rating ( $M = 4.61$ ,  $SD = 0.21$ ) suggests that the mockumentary effectively employed rich media elements such as visual storytelling, sound design, and symbolism to convey complex social messages. These features are particularly important for engaging general student audiences, as they support emotional resonance and support deeper understanding of perspectives different from their own. However, the moderate scores related to age-appropriate content indicate the need for refined audience alignment, highlighting the importance of formative evaluation and expert judgment in Type I developmental research. These findings respond to the second research objective concerning the evaluated quality of the developed mockumentary short film.

Importantly, posttest findings indicated that participants generally agreed to strongly agree with statements assessing awareness, empathy, and new perspectives, with mean scores significantly above the neutral midpoint. These results address the third research objective concerning students' post-viewing perceptions. Given the posttest-only design, these findings should be interpreted as self-reported perceptions immediately following exposure rather than as evidence of causal impact or attitudinal change over time. Although the observed deviations from the neutral midpoint were statistically significant, the study design does not allow conclusions regarding increases attributable to the intervention. This pattern may be interpreted through Narrative Paradigm Theory (Fisher, 1984), which suggests that individuals often make sense of social issues through stories, and through Connectivist principles emphasizing learning within networked environments. Such theoretical connections are offered as interpretive lenses rather than empirically tested mechanisms. Overall, the findings suggest that mockumentary storytelling may serve as a reflective educational medium capable of encouraging consideration of empathy and responsible digital participation within diverse school communities.

To situate these findings within their appropriate methodological scope, it is important to clarify the developmental positioning of the present study. This research was designed as a Type I developmental research project that emphasized systematic product design, iterative refinement, and formative validation rather than experimental testing of causal effectiveness. The study progressed sequentially from exploratory identification of prevalent cyberbullying experiences among LGBTQ+ students, to structured development and expert evaluation of the mockumentary short film, and finally to perception-based assessment among general secondary school students following exposure to the film.

Accordingly, the primary contribution of this study lies not in demonstrating attitudinal change or causal impact, but in documenting a theory-informed development process and providing empirical evidence of positive post-viewing perceptions significantly above neutrality. Within this framework, the mockumentary functions as a reflective educational medium, contributing to the growing body of research on narrative-based educational media aimed at fostering empathy-oriented awareness and responsible digital participation toward LGBTQ+ peers in secondary school contexts.

Future research should involve larger and more diverse student populations across different geographic and educational contexts to further examine how general students' attitudes and online behaviors toward LGBTQ+ peers evolve over time. Pretest–posttest designs would allow for examination of sustained changes in empathy, peer responsibility, and digital citizenship. In addition, the present study's expert-based quality evaluation relied on a relatively small panel ( $n = 2$  content experts and  $n = 2$  media experts), which may limit the stability and generalizability of the obtained mean ratings. With small expert panels, mean scores can be highly sensitive to individual raters' judgments, and restricted variability may

occur, sometimes resulting in very low or zero standard deviations when identical ratings are provided. Such conditions may reduce the precision and interpretive robustness of quality estimates. Future developmental studies should therefore expand the number and diversity of expert evaluators involved in formative validation to enhance the robustness of quality assessments. Reporting inter-rater agreement indices (e.g., intraclass correlation coefficients; ICC) would further strengthen confidence in expert judgments by demonstrating rating consistency beyond descriptive statistics. Additionally, qualitative approaches such as focus groups or classroom observations could provide deeper insight into how general students interpret narrative-based media and translate these interpretations into online behavior. Exploring interactive or adaptive storytelling formats may further enhance the potential of mockumentary-based educational media to promote inclusive, respectful, and supportive digital interactions among students.

## 8. Conclusion

This study contributes to the understanding of cyberbullying experiences among LGBTQ+ secondary school students in digital environments and highlights the role of peer dynamics in shaping these experiences. The findings indicate that identity-based forms of cyberbullying—particularly body shaming, sexual harassment, and gender-related discrimination—were highly reported within the present sample. Importantly, the study shifts the focus from viewing LGBTQ+ students solely as targets of intervention to recognizing the participating students as a critical audience for fostering awareness, empathy, and responsible digital behavior. This study extends the application of Type I developmental research to the systematic design and formative evaluation of narrative-based digital media for social inclusion in secondary education.

The mockumentary short film developed through a structured 3P production process suggests the potential of narrative-based digital media as a reflective educational resource rather than as a tested causal intervention. Expert evaluations supported both the content and media quality of the film, while post-viewing findings indicated that participants' responses clustered within the Agree to Strongly Agree range for awareness, empathy, and new perspectives. Although causal conclusions cannot be drawn due to the posttest-only design, the results indicate substantial positive deviations from neutrality and suggest the potential value of storytelling-based interventions in encouraging reflective engagement with peer roles and digital citizenship.

Several limitations should be acknowledged. The relatively small sample size, reliance on self-reported measures, use of a posttest-only design, and focus on a single metropolitan context limit generalizability and causal interpretation. In particular, because participants completed the assessment immediately after viewing a film addressing a socially sensitive topic, responses may have been influenced by social desirability bias, whereby participants reported more favorable perceptions than they might hold in practice (Krumpal, 2013). Future research may consider incorporating indirect or behavioral measures, delayed post-assessments, or anonymity-enhancing procedures to mitigate this potential bias. Furthermore, each dimension of post-viewing perception was assessed using a single item, which limits measurement precision and precludes dimension-level reliability estimation. Future research should develop multi-item scales for each dimension to allow for more robust psychometric evaluation.

In addition, future research should incorporate pre-post or longitudinal designs with larger and more diverse samples to examine sustained changes in attitudes and online behaviors. The formative quality evaluation relied on a small expert panel ( $n = 2$  per domain), which limits the stability of mean ratings and precludes meaningful computation of inter-rater reliability indices. Future studies should expand and diversify expert panels and report inter-rater agreement statistics to strengthen the robustness of quality judgments. Expanding the scope to include additional forms of digital harm—such as doxxing, non-consensual outing, and digital exclusion—would strengthen the applicability of narrative-driven interventions across varied educational and cultural contexts.

Overall, this study suggests that mockumentary storytelling may represent a pedagogically meaningful and developmentally appropriate approach for encouraging empathy-oriented peer engagement and responsible digital participation within diverse school communities.

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## Author contributions

Asst. Prof. Dr. Chudanat Sudthongkhong was responsible for supervision, conceptualization, methodology, and writing the original draft, as well as resources, project administration, and funding acquisition. Panupong Nonthasitthichai and Sothara Phungsombun were responsible for investigation, visualization, formal analysis, and data curation. Dr. Vitsanu

Nitayathamkul was responsible for validation and writing—review & editing. All authors read and approved the final manuscript. There were no special agreements concerning authorship.

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