



Digital Comic Design as an Educational Medium on the Dangers of Online Gambling

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ABSTRACT

The widespread practice of online gambling among adolescents in Lampung has created serious economic, psychological, and moral impacts. Easy access via smartphones and social media makes youth vulnerable, while government efforts such as blocking and law enforcement remain insufficient. This study aims to design digital comics as an educational medium on the dangers of online gambling tailored to young audiences. A qualitative method was applied through observation, literature review, and interviews with the Central Bureau of Statistics (BPS) of Lampung. The design process included pre-production, production, and post-production, involving character development, scripting, coloring, and Instagram publication. Trial results showed that digital comics effectively enhanced audience understanding, indicated by strong engagement and positive responses. The findings confirm that digital comics serve as a communicative and adaptive educational medium, offering an appealing approach to raise awareness and prevent youth involvement in online gambling.

1. Introduction

The development of information technology has had a significant impact on human life, both socially, economically, and culturally. Easy access to the internet and the widespread use of gadgets have allowed the flow of information to spread rapidly and broadly. On one hand, this development has opened positive opportunities such as communication efficiency, increased productivity, and the emergence of various creative innovations. On the other hand, technology has also brought serious challenges in the form of the proliferation of negative content that is easily accessible, including online gambling practices. Online gambling has become an alarming phenomenon due to its widespread impact, particularly among teenagers. The younger generation, who are deeply attached to the digital world, are highly vulnerable to gambling invitations and advertisements, especially with the lure of quick profits that are massively promoted through social media.

Data from the Financial Transaction Reports and Analysis Center (PPATK) shows a rising trend in the value of online gambling transactions in Indonesia, from IDR 2 trillion in 2017 to IDR 327 trillion in 2023. In Lampung Province, online gambling cases have also continued to increase year by year, with most perpetrators coming from students, university students, and teenagers. This phenomenon not only causes financial losses but also has an impact on mental health, such as addiction, stress, and depression. Furthermore, the involvement of teenagers in online gambling triggers other social problems, including

criminality, family conflicts, and school dropouts. This condition confirms that online gambling has developed into a multidimensional issue that requires serious attention from various stakeholders.

The government has indeed made efforts to tackle the issue through website blocking, legal sanctions, and public campaigns. However, in reality, access to online gambling remains easily available and even more massive. This situation demands preventive strategies that are closer to the lives of teenagers. One effective approach is education through interactive and communicative visual media. Visual-based educational media have been proven to attract young people's attention, as they align with their learning style, which tends to be visual-kinesthetic. Digital comics, as one form of visual-narrative media, have great potential to serve as a persuasive and emotional medium for delivering social messages.

Several previous studies have shown that digital comics are effective in increasing teenagers' understanding of social issues. Research by Syamsurijal et al. (2022) proved that digital comic media can significantly improve students' learning outcomes, while the study of Sunarso et al. (2024) on web comics with online gambling themes showed an increase in readers' empathy and awareness of gambling's negative impacts. A similar finding was presented by Sekarwangi et al. (2024), who designed an educational digital comic based on real-life stories and successfully enhanced readers' moral awareness. Thus, these theoretical and empirical foundations strengthen the belief that digital comics can be a relevant alternative educational medium to prevent teenagers' involvement in online gambling.

Based on the explanation above, this research focuses on designing digital comics as an educational medium on the dangers of online gambling for teenagers in Lampung Province. The main objective is to create a creative medium capable of delivering messages in an engaging, easy-to-understand way that matches the characteristics of the younger generation. This study is expected not only to provide academic contributions in the field of visual communication design but also to serve practical purposes as a concrete effort to enhance digital literacy, strengthen moral awareness, and prevent the negative impacts of online gambling among teenagers.

2. Method

2.1 Research Design

This study employs a descriptive qualitative design, as its main objective is to portray the social phenomenon of online gambling among teenagers and to develop a solution in the form of digital comic-based educational media. A qualitative approach was chosen to gain deeper insights into the motives, perceptions, and experiences of teenagers exposed to online gambling, as well as to explore how visual media can address their educational needs. The research process involves direct observation, literature review, and interviews with the Central Statistics Agency (BPS) of Lampung Province and related authorities. With this design, the data obtained are not limited to numerical figures but also narratives and field findings that support the formulation of the digital comic design concept. In-depth descriptions are used to explain the problem's context, its impacts, and potential creative solutions. Furthermore, this research design emphasizes the stages of visual development, starting from audience needs analysis, storyline preparation, character development, to outcome evaluation through publication on Instagram. Through the descriptive qualitative approach, the study is expected to produce a comprehensive understanding while presenting an educational medium that is effective, communicative, and aligned with the socio-cultural conditions of teenagers in Lampung.

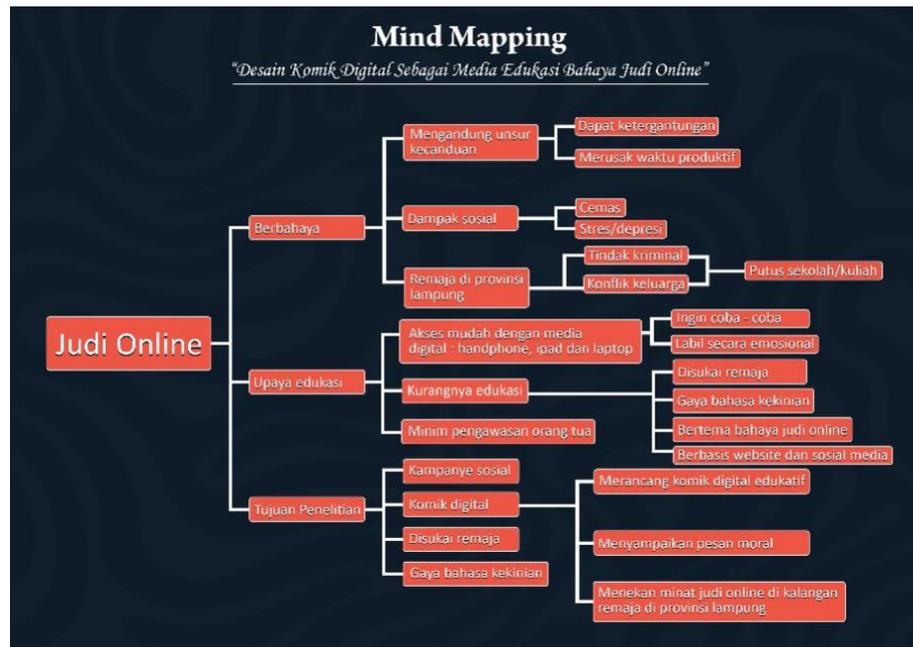


Figure 1. Mind Mapping of Digital Comic Design Planning

2.2 Population and Sample

The population in this study consists of teenagers in Lampung Province, particularly those aged 14–21 years. This group was chosen because they are the most active users of the internet and social media, and at the same time, they are the most vulnerable to the influence of online gambling advertisements and invitations. Teenagers within this age range are in the stage of identity development, making them more easily influenced by their environment and the media. From this broad population, the study employed purposive sampling, namely the selection of respondents considered to have knowledge or experience related to the phenomenon of online gambling. The sample includes high school students, university students, and general teenagers who are active users of gadgets and social media. In addition, the study also involves supporting data from the Lampung BPS, which records trends in society’s digital behavior, including the increase in online gambling activities. Focusing on teenagers aged 14–21 years is relevant to the research objective, which is to design digital comics suited to their characteristics. Thus, the research sample is considered representative of the actual situation and serves as the main basis for developing visual and narrative strategies in digital comics as educational media.

2.3 Data Collection Techniques

Data collection techniques were carried out through three main methods: observation, interviews, and literature study. Field observations were conducted to observe the phenomenon of online gambling in Lampung, whether through social media, the surrounding environment, or law enforcement reports. These observations helped the researcher understand the patterns of teenagers’ involvement, the types of applications or websites used, and the forms of promotion that frequently appear. Furthermore, interviews were conducted with representatives from the Lampung Central Statistics Agency (BPS) and law enforcement officials. The purpose of the interviews was to obtain direct information regarding trends in online gambling cases, statistical data, and the institutions’ perspectives on its impact on society. In addition, interviews with teenagers were conducted to explore their motivations, perceptions, and level of awareness about the risks of online gambling. Supporting data were also collected through

literature studies from various sources, such as scientific journals, news articles, research reports, and literature on visual educational media. By combining these three techniques, the data obtained became richer, more valid, and more comprehensive. This data not only provided a real picture of the problem but also served as a conceptual basis for designing digital comic media that is relevant and effective in delivering educational messages.

2.4 Data Analysis Technique

Data analysis in this study applies the 5W+1H approach (What, Who, Where, When, Why, How), problem mapping, and the development of visual concepts. The 5W+1H approach was used to formulate the issue of online gambling in a more systematic way. The *what* identifies the forms and types of prevalent online gambling; *who* highlights the dominant actors (teenagers and young adults); *where* examines the context of its spread, namely in Lampung; *when* outlines the trend of increasing cases from year to year; *why* explores the motives behind teenagers' involvement, such as economic factors and environmental influence; while *how* analyzes the ways online gambling spreads through social media advertisements. After situational analysis, problem mapping was conducted to identify the main factors influencing teenagers' vulnerability. From this stage, a visual concept was formulated in the form of a storyline, characters, and an illustrative style that is communicative. The analysis also included a trial publication of the digital comic on Instagram to observe audience responses. Audience interactions, views, and comments were analyzed as indicators of the effectiveness of the educational media. Through this analytical technique, the study not only produced descriptive data but also guided the formulation of a relevant and well-targeted design strategy.

3. Results and Discussion

3.1 Analysis of the Online Gambling Phenomenon Among Teenagers in Lampung

Findings from observations, interviews, and secondary data from the Central Statistics Agency (BPS) of Lampung Province indicate that online gambling practices have increased significantly over the past five years. This aligns with reports from the Financial Transaction Reports and Analysis Center (PPATK), which recorded a surge in online gambling transactions in Indonesia, from IDR 2 trillion in 2017 to IDR 327 trillion in 2023. Lampung Province itself is among the regions with a considerable contribution to online gambling cases, particularly among teenagers.

Interview respondents, both law enforcement officers and teenagers, confirmed that ease of access is the main factor driving involvement in online gambling. With just a mobile phone and social media applications, users can quickly access gambling websites or applications. Digital promotions are also very widespread, often appearing in the form of pop-ups or direct messages on popular platforms such as Facebook, Instagram, and WhatsApp.

Teenagers' motivations for trying online gambling vary. Some are driven by curiosity, while others are enticed by the lure of instant profits. Most respondents admitted that they initially gambled with small amounts of money, but over time, the tendency to increase their bets grew stronger. This corresponds with addictive behavior theory, which states that gambling behavior tends to evolve from mere experimentation into a repetitive habit that is difficult to control.

The negative impacts experienced by teenagers are also clearly identified. Several respondents admitted losing their allowance, and some even stole from their parents to continue playing. Psychologically, feelings of anxiety, frustration, and stress emerged as a result of repeated losses. This phenomenon affirms that online gambling is not merely a form of digital entertainment but a serious threat to the moral and social development of the younger generation.

3.2 Pre-production Stages of Digital Comics

Based on the identified problems, the researcher then designed a creative solution in the form of digital comics as an educational medium. The pre-production stage began with in-depth research on the characteristics of the target audience, namely teenagers aged 14–21 years. The findings show that this group tends to prefer visual content that is light, communicative, and accessible through gadgets. Instagram was chosen as the distribution medium due to its popularity among teenagers and its ability to showcase visual formats in the form of serialized images.

The next stage was the development of the story concept. The storyline was structured based on real-life phenomena experienced by teenagers, so that the audience would feel closer to and more connected with the narrative. The story was created in a simple form but carried strong moral messages. For example, the main character was depicted as a student who was initially tempted to try online gambling, then faced negative consequences such as losing money, experiencing family conflicts, and suffering from mental stress. The plot was designed to allow readers to follow the character's journey and ultimately understand the serious risks of online gambling.



Figure 2. Digital Sketching Process of Comic Character Design

Next, comic panel sketches were created to organize the layout of images and dialogues. These sketches function as a visual framework before moving on to the production stage. The panels were designed to be simple with a clear flow, ensuring that readers would not face difficulties in following the storyline.



Figure 3. Manual Draft Comic Sketch

3.3 Production Stages of Digital Comics

The production stage is the core of the digital comic design process. After completing the storyline concept, sketches, and character development in the pre-production stage, the next step was to bring these ideas to life in a more refined visual form. Production began with the creation of line art, which involved redrawing the sketches with cleaner and more consistent lines. The line art was produced using digital graphic design software that supports both vector and bitmap illustrations, such as Adobe Illustrator and Clip Studio Paint.



Figure 4. Digital Sketching Process of Comic Design

In this stage, the researcher also paid attention to the chosen visual style. Based on teenagers' preferences, a semi-realistic style combined with cartoon elements was considered the most suitable. This style allowed for stronger character expressions while still being simple and easy to understand. Each panel was designed with a balanced composition between text and images to ensure that the conveyed message did not appear monotonous.

Coloring was another important aspect of the production stage. Colors were selected with consideration of color psychology, where bright tones were used to depict cheerful opening scenes, while darker and more contrasting colors dominated parts of the story that emphasized the negative consequences of online gambling. Gradients and lighting effects were also applied to create dramatic effects that supported the story's atmosphere.

Character dialogues were placed inside speech balloons with typography that was clear, simple, and easy to read on mobile screens. A sans-serif font was chosen for its readability on digital devices. In addition to dialogue, short narrations were inserted into several panels to explain the storyline more coherently.

The final result of the production stage was a digital comic in a serialized format, consisting of several short episodes, each highlighting one phase of the main character's experience. This episodic division was made to ensure that the audience would not feel burdened by reading a long story all at once, but instead could follow the narrative gradually and more interactively.

3.4 Post-Production and Distribution Stages

After the illustration and panel arrangement process is completed, the next stage is post-production. At this stage, editing, evaluation, and refinement are carried out. Editing includes checking typographical errors, character consistency, and storyline coherence. A limited trial was conducted by asking several respondents from the youth group to read the initial version of the comic. The feedback obtained included the clarity of dialogue, text size, and panel readability on mobile screens. Based on this feedback, revisions were made to the font size and simplification of dialogues to better suit the reading habits of the younger generation.



Figure 5. Final Work of the Digital Comic

For distribution, Instagram was chosen as the main platform. Each comic episode was published in carousel format, consisting of several image panels that users could swipe through. This format was considered suitable because the audience could enjoy the story sequentially within a single post. In addition, Instagram provides insight features that allow for audience engagement analysis, such as the number of views, likes, comments, and shares.

The publication strategy was also adjusted to the digital habits of teenagers. Posts were uploaded during peak hours, namely in the late afternoon until evening, when the majority of the audience accessed social media. Adding captions with simple language and popular hashtags also supported the reach of the publication.

3.5 Publication Results and Audience Response

The publication of the digital comic on Instagram received a positive response from the audience. Insight data showed that the reach of each episode averaged thousands, with a relatively high engagement rate.

Most audience comments appreciated the creative and easy-to-understand way the message was delivered. Some teenagers stated that they became more aware of the risks of online gambling after reading the comic.

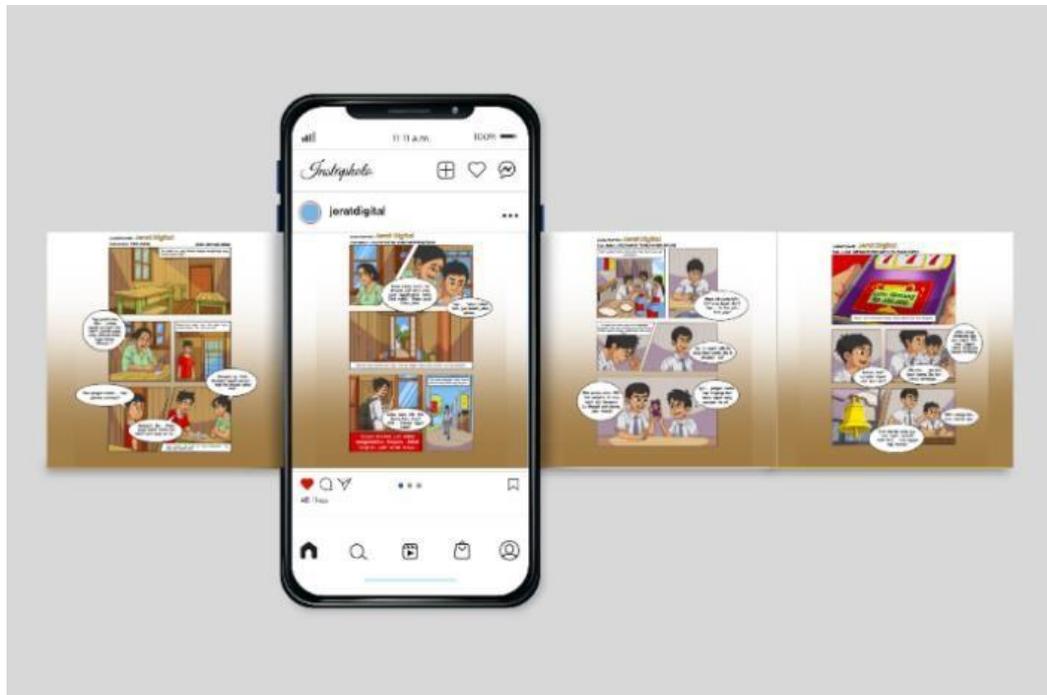


Figure 6. Application of Comic Feed Design on Instagram

High interaction was also seen from the number of shares to the story feature, indicating that the audience considered the message in the comic important enough to be shared with others. This is in line with mass communication theory, which states that the shareability level of content is an indicator of the success of digital media in reaching a wide audience.

In addition, the publication of the digital comic also opened space for discussion in the comments section. Some audience members shared personal experiences related to friends or family who were trapped in online gambling. This discussion demonstrated that comics not only serve as a medium for delivering educational messages but also create a space for social dialogue relevant to everyday life.

In terms of effectiveness, the publication results showed that digital comics can enhance teenagers' understanding of the dangers of online gambling. This was proven by changes in attitudes of some audience members who admitted they previously did not know about the serious impacts of online gambling but later became more cautious after reading the comic. Thus, this study successfully proved that digital comics are an educational medium that is communicative, emotional, and adaptive to the media consumption patterns of the younger generation.

3.6 Theoretical Discussion

The research findings that demonstrate the effectiveness of digital comics as an educational medium on the dangers of online gambling can be reviewed from various theoretical perspectives.

First, based on visual communication theory, image- and narrative-based media have advantages in delivering complex messages in a simple and easily understandable way. Teenagers, as the primary audience, tend to be more responsive to visuals compared to lengthy texts. This aligns with Daryanto (2010), who stated that visual media possess strong appeal, particularly for the younger generation accustomed to digital environments.

Second, in relation to digital literacy theory, digital comics help raise teenagers' critical awareness of online content. By presenting real-life stories that are close to their daily experiences, this medium serves as a counter-narrative to online gambling advertisements, which usually emphasize glamour and instant profits. The publication of comics on Instagram, which sparked audience discussions and interactions, proves that digital literacy can be enhanced through creative approaches.

Third, from the perspective of visual communication design, digital comics combine elements of aesthetics, narrative, and distribution strategies. The selection of colors, illustration styles, and typography that match teenagers' preferences makes the message more easily accepted. The design process, which takes into account color psychology and the emotional flow of the story, strengthens the persuasive power of this medium. Thus, digital comics are not only a form of entertainment but also a strategic communication tool capable of transforming audience perceptions.

4. Conclusions:

The phenomenon of online gambling among teenagers in Lampung has increased significantly and has negative impacts on economic, psychological, and social aspects, thus requiring a more communicative educational approach. Digital comics have proven effective as an educational medium because they are able to deliver moral messages in an attractive visual-narrative form that is easy to understand and relevant to the characteristics of teenagers.

The comic design process, through the stages of pre-production, production, and post-production, has resulted in a work that meets the needs of the audience, both in terms of visuals, storyline, and the messages conveyed. The publication of the comic through Instagram has successfully reached a wide audience, as indicated by the high number of views, interactions, and positive responses, thereby increasing teenagers' awareness of the dangers of online gambling.

The research objective, namely to present an educational medium that is communicative, emotional, and adaptive, has been achieved, while also opening opportunities for the development of similar creative strategies for other social issues.

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References

- Aggleton, J. (2019). Defining digital comics: a British Library perspective. *Journal of Graphic Novels and Comics*, 10(4), 393–409. <https://doi.org/10.1080/21504857.2018.1503189>
- Akbar, G. G., Ulumudin, A., Kania, I., & Nurliawati, N. (2024). Policy Brief: Tackling the Social, Economic, and Legal Impacts of Online Gambling in Indonesia. *Journal of Humanities Social Sciences and Business (Jhssb)*, 3(4), 1017–1035. <https://doi.org/10.55047/jhssb.v3i4.1308>
- Almas Barizah, Kurniasari, R., & Karawang, U. S. (2023). *Perbandingan Efektivitas Media Poster, Video, Serta Komik Terhadap Peningkatan Pengetahuan Tentang*. 30.
- Almu, S. &. (2019). pengertian mind mapping. <https://ejournal.stitalkhairiyah.ac.id/>, 6, 2. <https://ejournal.stitalkhairiyah.ac.id/>

- Amarullah, A. K. (2023). Kajian Literatur Dalam Menyusun Referensi Kunci, State of Te Art, Dan Keterbaharuan Penelitian (Novelty). *Aktualita: Jurnal Penelitian Sosial Keagamaan*, 13(1), 37–52. <https://doi.org/10.54459/aktualita.v13i1.527>
- Anasya, N. (2024). Komik Digital “Gadis” Sebagai Media Edukasi Pencegahan Pelecehan Seksual. *Http://Repository.Upi.Edu/*. https://repository.upi.edu/129428/?utm_source=chatgpt.com
- Anggreini, L. (2018). Studi Sosiologi Tentang Perilaku Judi Togel di Kalangan Remaja Desa Mulyasari Kecamatan Sukamaju Kabupaten Luwu Utara. *Psikologi Sosial, Kenakalan Remaja*.
- Arif, bela rusdiana & febrianto. (2023). Pengembangan Media Komik Digital Ipa Untuk Meningkatkan Motivasi Belajar Kelas V Sd Negeri Grindang Kulon Progo. *Https://Eprints.Uny.Ac.Id/*. <http://eprints.uny.ac.id/id/eprint/79974>
- Ashari, I. R., & Khodijah, K. (2024). Trend Judi Online dan Pinjol pada Kelompok Remaja : Faktor Resiko dan Dampak Sosial. *Pustaka: Jurnal Ilmu-Ilmu Budaya*, 24(2), 161. <https://doi.org/10.24843/pjiib.2024.v24.i02.p07>