

INTERACTIVE ANIMATION FOR KIDNEY DONATION AWARENESS CAMPAIGN IN MALAYSIA

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Abstract: This study investigates the use of interactive animation as an awareness campaign tool to address low participation in kidney donation in Malaysia, particularly among the Malay community. It aims to (1) examine public perceptions and understanding of kidney donation, (2) develop an interactive animation based on audience preferences and expert insights, and (3) evaluate its effectiveness in communicating health-related information. A mixed-methods approach was employed, combining a semi-structured interview with a transplant expert and a questionnaire survey involving 50 participants. The animation adopts a “choose-your-own-adventure” narrative structure, allowing users to engage in simulated decision-making scenarios related to organ donation. The findings indicate that while general awareness exists, communication gaps and misconceptions continue to remain major barriers. The interactive animation received positive responses in terms of visual appeal, engagement, and effectiveness of information delivery, suggesting its potential to enhance audience involvement and comprehension. Overall, the study demonstrates that integrating interactive storytelling with visual communication offers a promising approach for culturally sensitive health awareness campaigns, although further research with broader samples and extended platforms is recommended.

Keywords: organ donation, kidney donation, interactive animation, health awareness campaign, Malaysia

1. INTRODUCTION

According to the International Registry on Organ Donation and Transplantation (IRODaT), Malaysia records one of the lowest organ donation rates in the world, with only 0.9 donors for every million people. The country follows an “opt-in” system, whereby individuals must voluntarily pledge themselves to the national registry. The shortage is particularly evident in kidney transplantation. In 2023, the National Transplant Resource Centre (NTRC) reported 9,542 people on the waiting list out of 9,941 total transplant patients. Public communication has become central in tackling this challenge. Advertising is one approach that has shown promise, and interactive media—such as the “choose-your-own-adventure” style popularized on platforms like Netflix—offers a platform for audiences to engage directly in decision-making processes. For organ donation campaigns, this format can make the issue feel more immediate and relatable. Research further shows striking differences across ethnic groups: 72.7% of Indians and 61.8% of Chinese have shown willingness to donate, compared to only 10.6% of Malays (Islahudin, 2020). These figures reflect strong cultural hesitation, particularly among the Malay community.

Although general awareness of organ donation exists, this awareness has not translated into higher registration rates. Many potential donors remain uncertain about the organ donor registration process, while misinformation continues to influence decision-making. Limited education, lack of accurate knowledge, and uncertainty regarding religious permissibility are persistent barriers. Although Islam permits organ donation, misconceptions continue to remain widespread among Muslim communities. Previous studies in Malaysia have shown that a substantial proportion of Malays believe organ donation is prohibited in Islam, reflecting ongoing confusion surrounding religious guidance (Noordin et al., 2012). Similarly, Tumin et al. (2016) found that uncertainty about Islamic rulings and limited understanding of medical concepts such as brain death contribute to hesitation toward organ donation. These findings suggest that clearer and more consistent guidance from religious authorities could play a crucial role in improving public confidence and willingness to register as organ donors.

In response to these challenges, there is a growing need for more effective communication strategies that go beyond conventional awareness approaches. While existing campaigns have increased general awareness, they often rely on passive information delivery, which may not effectively engage audiences or address deeper cultural and emotional barriers associated with organ donation. In particular, limited attention has been given to the use of interactive animation as a medium that combines visual storytelling with user participation to enhance engagement and understanding. Therefore, this study explores the development and evaluation of an interactive animation approach for kidney donation awareness in Malaysia, with a focus on

improving audience engagement, communication effectiveness, and culturally sensitive message delivery.

2. LITERATURE REVIEW

2.1 Organ Donation

Organ donation refers to the medical act of transferring an organ or tissue from one individual to another through surgical procedures. This procedure is usually carried out when a patient suffers from severe illness or injury that leaves an organ damaged or unable to function properly. The practice is considered one of the crucial advances in modern medicine as it enables the possibility of saving lives by replacing failing organs with healthy ones. Approaches to organ donation vary across countries, but they are generally divided into two main systems: opt-in and opt-out. In an opt-in arrangement, a person must give explicit consent by registering as a donor. In contrast, the opt-out system assumes everyone to be a donor at the time of death unless they have officially declined. Although many donations occur after death, certain organs may be donated by living donors. Importantly, age is not a barrier, as people of different age groups can take part voluntarily. However, certain barriers like lack of proper knowledge, fear of surgery, myths, and limited access to clear guidance discourage many from participating in this life-saving act (Ismail et al., 2020).

The need for donated organs remains extremely high worldwide. Each year, thousands of patients die before receiving a transplant, showing how demand consistently exceeds supply. While several countries have taken initiatives to increase donation rates, the shortage remains critical as the number of patients continues to increase faster than the availability of donors. Organ transplantation is nevertheless a milestone of contemporary healthcare, offering people of all ages suffering from organ failure or severe injury a second chance at life. Beyond major organs, donated tissues such as corneas, tendons, and bones are equally valuable in helping to restore vision, movement, and other essential bodily functions. Despite these contributions, the gap between organ demand and supply continues to be wide, highlighting the urgency of stronger efforts to address this imbalance.

2.2 Kidney Donation

Kidney donation refers to the process of transplanting a healthy kidney from a donor to a patient with end-stage kidney disease (ESKD) or chronic kidney disease (CKD), where kidney function is severely impaired (Wan et al., 2022). Compared to long-term dialysis, kidney transplantation offers significantly better outcomes in terms of survival rate and quality of life, making it the preferred treatment option for many patients.

Kidney donation can be carried out through two main approaches: living donation and deceased donation. Living donors, who may be family members, friends, or unrelated volunteers, generally provide better transplant outcomes due to pre-planned procedures and controlled medical conditions.

Despite its medical effectiveness, kidney donation rates remain low in Malaysia, particularly among the Malay community. This is largely influenced by factors such as limited awareness, misconceptions about health risks, and uncertainty surrounding cultural and religious beliefs. Many individuals are concerned about the long-term health effects of kidney donation, despite medical evidence indicating that living donors can continue to lead normal lives with one functioning kidney. In addition, lack of clear communication regarding the donation process and eligibility further contributes to hesitation. These challenges highlight the importance of effective awareness strategies that can present accurate information in a clear, accessible, and culturally sensitive manner.

2.3 Animation in Advertising

Animation has emerged as a powerful communication medium widely used in advertising more academically to deliver messages in a clear, engaging, and visually compelling manner. In contemporary digital media, animation is frequently applied in promotional content, explainer videos, and awareness campaigns due to its ability to simplify complex information and present it in an accessible format (Cook & Thompson, 2019; Nazley et al., 2024). Unlike static visuals or text-based communication, animation integrates movement, narrative, and visual elements, allowing messages to be communicated in a more dynamic and memorable manner.

In the context of advertising, animation functions not only as a visual attraction but also as a persuasive communication tool that can influence audience perception and behaviour. It enables the use of storytelling, symbolism, and emotional cues to communicate ideas that may otherwise be difficult to express, particularly in sensitive topics such as health and medical awareness. Previous studies have demonstrated that animation, when combined with interactive technologies such as augmented reality, can significantly enhance user engagement, comprehension, and interest, especially among younger audiences (Jamaludin et al., 2025; Mohd Noor et al., 2024).

Furthermore, animation provides flexibility in representing abstract or complex processes, making it suitable for explaining issues like organ donation in a more relatable and less confrontational manner. The use of 2D animation in this study is grounded in its effectiveness in maintaining visual clarity while supporting emotional accessibility. Compared to live-action or highly realistic visuals, 2D animation allows

greater control over visual composition, colour, and symbolic representation, which helps reduce psychological resistance when addressing sensitive issues. From an advertising perspective, the integration of interactive elements further enhances this approach by encouraging user participation, thereby increasing engagement, motivation, and message retention (Zainurin et al., 2024). As such, 2D interactive animation is particularly suitable for awareness campaigns that aim to inform, engage, and influence audiences within culturally sensitive contexts.

2.4 Interactive Elements in Animation

Interactive elements in animation have become increasingly important in contemporary digital media, as they transform audiences from passive viewers into active participants. Unlike traditional linear media, interactive animation enables users to influence the narrative through decision-making processes, creating a more engaging and personalized experience. In digital communication and media platforms, interactivity is widely recognised as a key factor in enhancing user engagement and participation (Lin et al., 2020; Lumen Learning, n.d.).

The concept of interactive storytelling, often referred to as “choose-your-own-adventure,” allows users to navigate different narrative paths based on their choices. This approach supports experiential learning by enabling users to explore the consequences of their decisions within a simulated environment. Previous studies have highlighted that interactive and simulation-based media can improve user motivation, comprehension, and retention by encouraging active involvement rather than passive consumption (Humayun, 2021; Matt, 2021).

In the context of awareness campaigns, interactive elements provide an opportunity to address complex and sensitive issues more effectively by guiding users through structured decision-making processes. This is particularly relevant for topics such as organ donation, where personal, cultural, and emotional factors influence individual choices. By incorporating interactive features, the communication approach becomes more immersive and reflective, allowing users to better understand the implications of their actions. Therefore, the integration of a branching narrative structure in this study is intended to enhance user engagement and facilitate a deeper understanding of kidney donation decisions.

2.5 Past Related Research

Table 1: Selected Examples of Digital Media and Interactive Approaches in Awareness Campaigns

Product	Description	Advantages	Disadvantages
The Development of Mobile Application of Organ Donation Using Flutter (Ong & Suparjoh, 2023)	Mobile Application for organ donation Mobile Application incorporated with 2D animation	Assisting people in registering to become organ donors. Exploring information about organ donation through better visualization via 2D animation.	Does not have good quality 2D animation.
Organ Donation Application for Top Glove and Global Doctor (TGGD) Medical Centre (Sasitharan & Hamzah, 2022)	Organ Donation Application	Serving the neighboring society in preventive medical care. Reducing time to find suitable organ donor.	Does not have good visualization for people to understand information about organ donation.
NSPCC, "Real Children Don't Bounce Back" (NSPCC, 2002)	Animation in advertising video about child abuse.	Using animation to raise awareness and disseminate facts about child abuse.	Does not have interactive elements for people to choose their storyline.

Cat Burglar- an Interactive trivia cartoon. (Brooker et al., 2022)	Classic family-friendly cartoon with interactive choices.	Many choices are available in the story.	The animation does not have information.
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Table 1 presents selected examples of digital media and interactive approaches used in awareness and communication campaigns. Previous studies have demonstrated the effectiveness of animation and digital media in enhancing audience engagement and delivering information in a more accessible manner. For instance, animated campaigns have been shown to simplify complex issues and attract audience attention, while interactive platforms provide opportunities for user participation and personalized experiences. However, most existing studies tend to focus on either visual presentation or information delivery, with limited integration of interactive narrative structures that allow users to actively engage in decision-making processes. In addition, there is a lack of research that addresses culturally sensitive topics, such as organ donation, using interactive animation within a localized context. Therefore, this study aims to bridge this gap by combining visual communication, interactive storytelling, and culturally relevant content to enhance awareness and engagement in kidney donation campaigns.

3. METHODOLOGY

This study adopted a mixed-methods approach combining qualitative and quantitative techniques to support both the development and evaluation of the interactive animation. A semi-structured interview was conducted with a transplant expert from a relevant medical institution to obtain insights into the medical, cultural, and communication aspects of kidney donation. The interview utilised open-ended questions to explore issues such as public misconceptions, awareness challenges, and factors influencing donation decisions. The findings from this qualitative phase informed the development of the animation narrative and ensured that the content was accurate, relevant, and culturally sensitive.

Following the qualitative phase, a questionnaire survey was administered in two stages to support both the design and evaluation processes. The first questionnaire focused on identifying audience preferences related to visual style, interactive elements, and overall design direction, which guided the development of the animation. The second questionnaire involved 50 participants and was conducted after the animation was developed to evaluate audience perception, engagement, and the effectiveness of the animation in delivering information. Descriptive statistical analysis was used to

summarise the responses, enabling a systematic assessment of user experience and communication impact.

3.1 Semi-Structured Interview

An online interview was conducted on 30 January 2024 with Dr. Hasdy Haron, Deputy Director of the National Transplant Resource Centre (NTRC), to obtain expert insights into organ transplantation and donation practices in Malaysia. It aimed to support the development of an interactive animation for a kidney donation awareness campaign, subsequently addressing the pressing issue of long waiting lists, particularly for kidney transplants, which remain the most in-demand organ in the country. The interview functioned as a primary data collection method aligned with the research objective of creating an informative and socially impactful media product.

The interview was structured into three main sections: (1) factors and impacts related to kidney and organ health, (2) procedures and processes involved in organ donation, and (3) public perceptions among Malaysia's major ethnic groups. Content analysis was employed to interpret the qualitative data. Specific topics discussed included the appropriate donor age range, organ-recipient compatibility, associated medical costs, donor registration procedures, and the notably low donation rates among the Malay community. All data were systematically documented and analyzed to inform the creative and educational direction of the animation project.

3.2 Questionnaire

The data collection process was achieved by administering a two-phase questionnaire to individuals aged 18 to 40 across various locations via Google Forms, targeting approximately 50 participants. The primary aim was to support the design of an interactive animation as a medium for a kidney donation awareness advertising campaign, while also assessing the effectiveness of such animation in delivering targeted health information. The first phase of the questionnaire focused on user preferences regarding animation design elements, including character type, background art style, and genre. This phase was intended to inform the creative direction of the animation. Google Analytics was used to evaluate the percentage-based responses gathered from the participants. The sample size of 50 participants was selected based on accessibility and relevance to the target audience, focusing on Malay respondents as the primary demographic group for this study.

The second phase aimed to validate the animation's effectiveness in conveying information to the intended audience. Both phases employed descriptive statistical analysis to examine the collected data. Descriptive statistical analysis was used to

summarize response frequencies and percentages, supported by visual presentation through charts and figures for clearer interpretation. This approach helps to highlight public knowledge gaps and supports the potential of interactive media as a tool for health communication and advocacy.

The questionnaire used in this study consisted of structured items designed to capture participants' perceptions of kidney donation awareness, animation preferences, and user experience. Visual references, including sample animation styles and design options, were provided to assist respondents in making informed selections. To ensure transparency and reproducibility, the full questionnaire and accompanying visual materials are included as supplementary material for review.

3.3 Interactive Narrative Structure

The interactive animation in this study adopts a branching narrative structure that enables users to engage with the storyline through a series of decision points. As illustrated in Figure 1, the narrative begins with an introductory scene that presents the context of kidney donation, followed by sequential choices designed to simulate real-life decision-making situations. At each stage, users select between alternative actions, such as seeking additional information, engaging in discussion with family members, or proceeding with donor registration. Each decision leads to a different narrative outcome, reflecting the implications of informed or uninformed choices. This structure is designed to mirror the opt-in system of organ donation, allowing users to experience the decision-making process in an interactive and reflective manner. By incorporating user-driven pathways, the animation transforms passive viewing into active participation, thereby enhancing engagement and reinforcing the intended awareness message to the target audience.

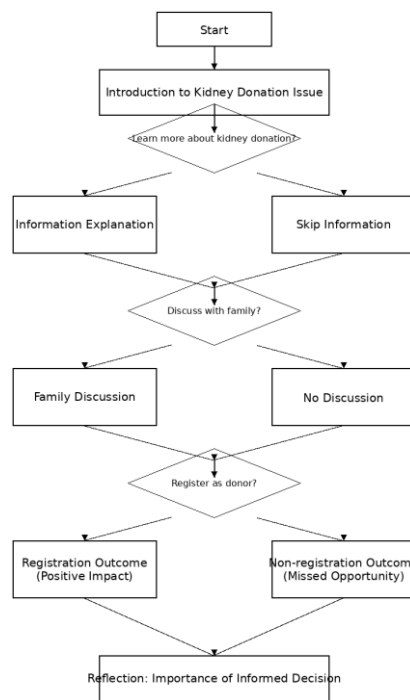


Figure 1. Interactive Narrative Flowchart of the “Choose-Your-Own-Adventure” Animation Structure.

The animated video used as the primary stimulus in this study was presented to participants prior to the evaluation phase. For the purpose of peer review, an anonymized version of the animation has been provided as supplementary material. The content has been prepared without identifying information to ensure compliance with the double-blind review process. It should be noted that the use of a single expert interview and a relatively small sample size may limit the generalizability of the findings. However, the study aims to provide exploratory insights into the potential of interactive animation as an awareness tool.

4. FINDINGS

4.1 Results of Semi-Structured Interview

A semi-structured interview was held with Dr. Hasdy Haron from the National Transplant Resource Centre (NTRC). The goal was to explore the perception of the Malays regarding organ donation and the procedure of kidney donation in Malaysia.

Table 2: Interview Data with Dr Hasdy Haron

QUESTIONS	ANSWER
Procedure to register as a donor?	<ul style="list-style-type: none">• Individuals who want to be an organ donor after death must register and express their desire to be a donor.• Donors must make a pledge during their lifetime when registering.• Donors must notify their family members about their decision.
What are the main factors causing the low percentage of organ donors among Malays?	<ul style="list-style-type: none">• The Malay community is reluctant to donate organs because there is still a feeling of fear.• Some consider donating organs a sin; others fear the public's stigma and negative perceptions.• Muftis have issued a fatwa that donating organs is allowed and permitted by Islamic laws.
How do we identify the right organ for the right organ recipient?	<ul style="list-style-type: none">• The recipient and donor must have the same blood type in terms of tissue suitability from the donor.• Medical assessments will be conducted for both parties before the transplant.• Medical assessment is required for both living and deceased donors to ensure compatibility and safety in the transplantation process.
What are the immediate and long-term implications for organ donors and recipients?	<ul style="list-style-type: none">• For living donors, there are usually no negative effects because humans can live even with one kidney.• Usually, the donor will experience minor side effects after surgery.• The percentage of deaths for donors is low at 0.01%.

Are expenses for medical checkups and surgery borne by the hospital?

- No charge will be imposed on the next of kin.
- Government and private hospitals cannot charge because it is written in government policy.

As shown in Table 2, the Human Tissue Act 1974 stipulates that individual wishing to become organ donors after death must register and explicitly express their intent. Malaysia's organ donation system operates on a pledge basis, meaning potential donors must formally declare their decisions while alive and inform their family members, as such consent is necessary under the Act. The Malay community remains hesitant about organ donation due to fears and misunderstandings about the importance of transplant, Islamic legal rulings, concerns about mutilating corpses, illiteracy, and inadequate dissemination of information. There is a prevalent stigma, with some viewing organ donation as sinful or suspecting that organs might be sold, causing family members' fear to societal judgement. However, Islamic religious leaders have issued fatwas confirming that organ donation is permissible, although public awareness remains low.

For organ transplants, both donors and recipients must have matching blood types and tissue compatibility to minimize rejection. Medical assessments, including blood tests and scans, are conducted for both parties before the transplant. However, the evaluation process differs between living and deceased donations, although compatibility and medical suitability remain essential considerations in both cases. Living donors typically do not suffer adverse long-term effects, as humans can live with one kidney. They may experience temporary post-surgery side effects like dizziness, vomiting, and nausea. According to Dr. Hasdy Haron, the mortality rate for donors is extremely low at 0.01%, as only healthy and suitable organs are considered for donation. Additionally, the costs associated with organ donation after death are not borne by the donor's family. Both government and private hospitals in Malaysia are prohibited from charging these expenses, as stipulated by government policy.

4.2 Results of Questionnaire on User Experience in Interactive Animation

The results indicate that informational and communication gaps are the dominant factors influencing the low participation of Malays in kidney donation, with over 70% of respondents highlighting limited exposure and ineffective media communication. Social influence also plays a role, particularly in family hesitation, while personal concerns such as fear of physical harm contribute to a lesser extent. Cultural and posthumous

body-related beliefs appear present but are comparatively less influential. Overall, the findings suggest that the issue is driven more by ineffective information delivery than by strong cultural or ideological resistance.

Pada pendapat anda, apakah faktor pendermaan buah pinggang kurang terdedah dalam kalangan orang Melayu? (Malays were observed to have a signi... 10.6% contribution. - Dr. Farida Islahudin, 2020)
52 responses

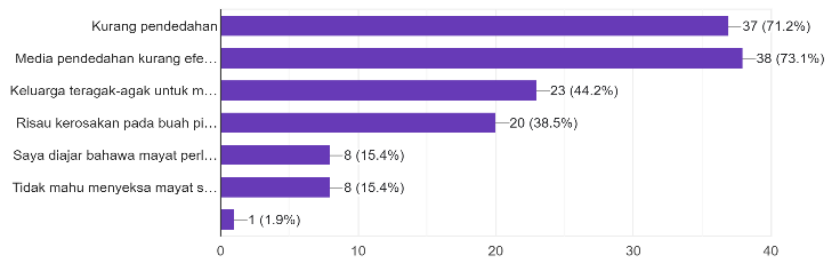


Figure 2. Factors Contributing to Low Kidney Donation Awareness Among Malays

The findings indicate that while most respondents (69.2%) have been exposed to kidney donation information, a significant portion remains unreached. This suggests that awareness efforts have achieved a certain level of visibility, but their reach is not yet comprehensive. More importantly, when considered alongside earlier findings, exposure alone does not guarantee effective understanding, indicating that existing communication strategies may lack depth, clarity, or engagement. As such, the issue appears to lie not only in access to information but in the effectiveness of how the information is delivered.

Adakah anda pernah didedahkan tentang isu pendermaan buah pinggang?
52 responses

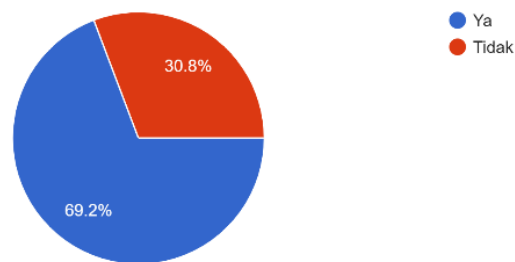


Figure 3. Public Exposure to Kidney Donation Issue

The findings demonstrate an overwhelming consensus on the effectiveness of 2D animation as an advertising medium, with 96.2% of respondents expressing positive agreement. This strong endorsement suggests that 2D animation is widely perceived as an accessible and engaging form of communication, making it a suitable medium for delivering awareness messages. More importantly, this supports its selection in this study, as the medium aligns with audience expectations and increases the likelihood of message acceptance.

Pada pendapat anda, adakah medium animasi 2D berkesan sebagai media pengiklanan?
52 responses



Figure 4. Effectiveness of 2D Animation as an Advertising Medium

The findings indicate a high level of familiarity with the “choose-your-own-adventure” concept, with 82.7% of respondents demonstrating prior awareness. This suggests that interactive narrative formats are already well recognised among the target audience, reducing the need for adaptation or learning barriers. Consequently, the use of this approach in the study is well-aligned with existing user experience expectations, increasing its potential effectiveness as an engaging communication strategy.

Adakah anda tahu mengenai animasi yang berkonsep "choose-your-own-adventure"?
52 responses

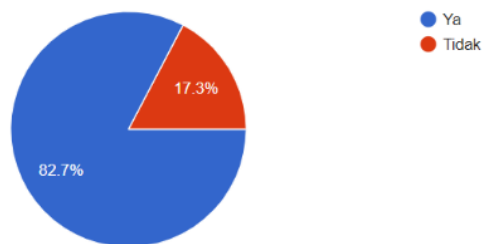


Figure 5. Public Awareness of the “Choose-Your-Own-Adventure” Animation Concept

4.3 Results of Questionnaire on User Learning Experience in Interactive Animation Video

The findings show a very high level of audience satisfaction with the animation’s visual style, with 98% of respondents indicating positive reception. This suggests that the visual design effectively aligns with audience preferences, supporting both aesthetic appeal and accessibility. Such strong acceptance implies that the chosen visual approach successfully enhances viewer engagement and provides a suitable foundation for delivering the intended message.

Adakah grafik visual video animasi ini kena dengan citarasa anda?

51 responses

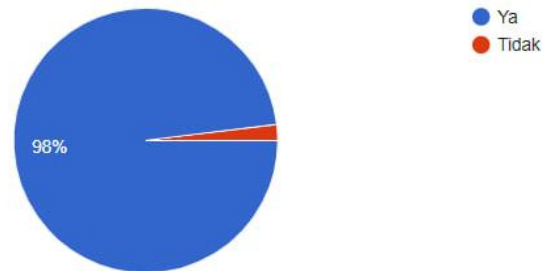


Figure 6. Audience's Satisfaction with Animation Visual Style

The findings reveal a strong positive response toward the interactive “choose-your-own-adventure” element, with 96.1% of respondents indicating that it successfully captured their attention. This suggests that interactivity plays a crucial role in enhancing user engagement, moving beyond passive viewing toward active participation. The high level of attraction further supports the effectiveness of interactive storytelling as a strategy for increasing audience involvement and reinforcing message delivery.

Adakah element interaktif "choose-your-own-adventure" dalam animasi ini menarik perhatian anda?

51 responses

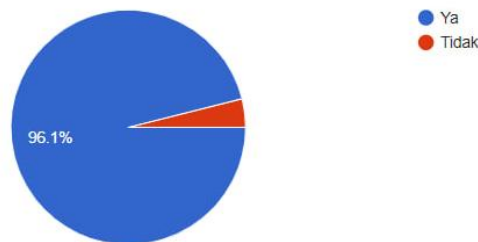


Figure 7. Audience Engagement with Interactive "Choose-Your-Own-Adventure" Element

The findings indicate strong confidence in the animation's potential for large-scale dissemination, with 94.1% of respondents perceiving it as suitable for mass advertising. This suggests that the animation not only engages audiences but is also considered viable for broader public communication. The high level of acceptance reinforces its potential as a scalable awareness tool capable of reaching wider audiences beyond the initial study context.

Adakah video animasi ini mempunyai potensi untuk ditayangkan secara besar-besaran sebagai pengiklanan?
51 responses

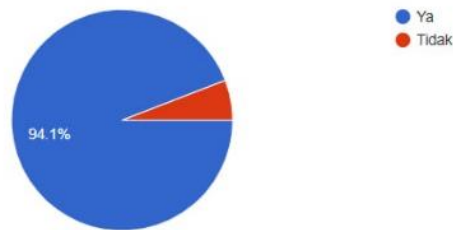


Figure 8. Audience Perception of the Animation's Potential for Mass Advertising

The findings demonstrate a very high level of effectiveness in information delivery, with 98% of respondents indicating that the animated video successfully conveyed its message. This suggests that the integration of visual design and interactive elements enhances not only engagement but also comprehension. The strong response indicates that the animation functions effectively as both an informative and persuasive communication tool, supporting its role in awareness campaigns.

Adakah penyampaian maklumat dalam video animasi ini berkesan?
51 responses

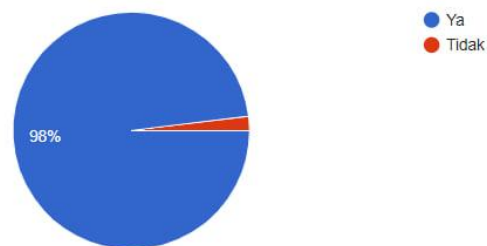


Figure 9. Audience Feedback on the Effectiveness of Information Delivery

The final visual outcome demonstrates a coherent integration of background and character design, developed in response to audience preferences identified through the questionnaire. The use of a controlled colour palette and balanced composition supports visual clarity, while lighting and shading enhance depth and emotional expression. These elements work together to establish a consistent visual hierarchy, guiding viewer attention without overwhelming the narrative. The selected scenes illustrate how visual decisions were intentionally structured to support both aesthetic appeal and message delivery. Overall, the design reflects an iterative process in which audience feedback informed refinements, resulting in a visual style that strengthens engagement and reinforces the emotional tone of the animation.



Figure 10. Selected Scenes Showcasing Final Background and Character Design in the Animation

5. DISCUSSION AND CONCLUSION

5.1 Discussion

The findings of this study suggest that the effectiveness of the interactive animation lies in its integration of visual design, narrative structure, and user participation. While high levels of audience engagement were observed, the results indicate that engagement alone is insufficient without clear and meaningful communication. The combination of visual storytelling and interactive decision-making enables users to better understand complex information, particularly in the context of kidney donation where cultural, emotional, and informational factors influence public perception.

These findings are consistent with previous studies that highlight the role of interactive and simulation-based media in enhancing user engagement and learning outcomes. Interactive digital environments allow users to actively participate in the communication process, which improves comprehension and retention compared to passive media consumption (Zainurin et al., 2024). In addition, visual-based approaches have been shown to simplify complex information and make it more accessible, particularly for awareness campaigns involving sensitive topics (Nazley et al., 2024).

In the Malaysian context, the results further suggest that awareness challenges are not solely due to lack of information, but are also influenced by cultural perceptions, misconceptions, and uncertainty regarding religious acceptance. This is consistent with previous findings indicating that social and cultural beliefs significantly affect public willingness to participate in organ donation (Ismail et al., 2020). The use of interactive

narrative allows users to explore these concerns in a simulated environment, making the communication process more reflective and personally relevant.

This study contributes to the field of visual communication and digital media by demonstrating how interactive animation can be applied as an awareness tool that combines engagement with meaningful learning. By integrating a “choose-your-own-adventure” structure, the study moves beyond traditional animation by incorporating user-driven pathways that simulate real-life decision-making processes. This approach aligns with current trends in digital communication, where interactive and user-centred media are increasingly used to enhance message effectiveness.

Despite these findings, the study is limited by the use of a single expert interview and a relatively small sample size, which may affect the generalizability of the results. Future research could expand the sample to include more diverse demographic groups and explore the use of different interactive platforms to enhance accessibility and scalability. Further investigation into long-term behavioural impact would also provide deeper insights into the effectiveness of interactive animation in influencing real-world decision-making.

5.2 Conclusion

This study suggests that interactive animation has strong potential as an awareness communication tool for kidney donation in Malaysia. The integration of visual storytelling and interactive elements enhances user engagement and supports clearer understanding of complex and sensitive information. By simulating real-life decision-making scenarios, the approach encourages more reflective audience responses and improves communication effectiveness.

The study contributes to the field of visual communication and digital media by demonstrating how interactive storytelling can be applied to address culturally sensitive health issues. The findings highlight the importance of combining visual design, narrative structure, and user participation in developing more effective awareness strategies. This approach provides practical value for future health communication campaigns seeking to engage audiences in a more meaningful and participatory manner.

Despite these contributions, the study is limited by the use of a relatively small sample size and a focused demographic group. Future research could expand the scope by involving more diverse participants and exploring different interactive platforms to enhance accessibility and scalability. Further investigation into long-term behavioural impact would provide deeper insight into the effectiveness of interactive animation in influencing real-world decision-making.

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