



Development and Evaluation of a Visual Novel Game “Happiness” to Introduce the 5 Stages of Grief

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ABSTRACT

Grieving is a feeling intimately associated with sadness and loss, and as a fundamental aspect of the human experience, it is an inevitable component of life. In the context of bereavement, individuals typically traverse the five stages of grief before achieving a state of equilibrium. However, the societal under-appreciation of these stages often engenders a prolonged and unresolved grief response, underscoring the necessity for educational initiatives that promote awareness of these stages. Visual game novels, a medium that employs narrative and visual elements to illustrate the stages of grief, offer a valuable avenue for conveying these concepts. These novels utilize Ren'py, a software application designed for creating visual novels, to present image illustrations alongside a narrative. In addressing this gap in understanding, the researcher developed a visual game novel titled "Happiness," which serves as an introduction to the five stages of grief. To gather data for this study, the researcher employed qualitative methods, conducting in-depth interviews using judgmental sampling techniques. The findings of this study contribute to the development of innovative educational media, particularly in the context of understanding the grieving process. Subsequent research can be conducted to generalize the findings to a broader population and explore the potential for cultural adaptation in game design.

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1. INTRODUCTION

Grief is a feeling or emotion that is closely related to sadness. In contrast to sadness, grief is more likely to result from the loss of something or someone valuable or the loss of an important relationship (Jacobsen & Petersen, 2020). Grief can also be said to be a person's psychological instinctual response when facing the experience of losing a loved one (Dwiartyani et al., 2021). Feelings of grief will usually lead to other feelings such as worry and withdrawal from their environment, even to the stage of depression.

As humans, the feeling of grief due to loss is something that must be experienced in life, whether it is grieving for a breakup or the destruction of a family business that has been built for years. However, the most painful loss and considered the most severe response that humans have to experience is the death of a loved one or it can be said that the loss of human friends or other life such as animals and others is permanent and irreparable (Ojala et al., 2021). Although grief and loss are universal human experiences, not everyone can respond well to feelings of grief and handle their grief.

In a grieving situation, people will go through a long process until they finally find themselves again. This process is called the 5 stages of grief. A person will reach the acceptance stage if they have successfully gone through these five stages, namely denial or denial, anger or anger, bargaining or bargaining, depression or depression, and acceptance or acceptance (Lia, 2022). When going through these stages, some people may recover well, but others may develop mental disorders or acute stress disorders, which interfere with their daily lives (Wang & Wang, 2021). A lack of understanding in the community can keep them stuck with recurring grief and disturb their feelings when faced with the situation.

The community needs education to realize the importance of knowing the five stages of grief to reduce mental disorders and new problems that may arise if the feeling of loss is left unchecked. A special approach can be taken with teenagers whose emotions are still developing or unstable. The approach also needs to be prepared with interesting methods to captivate their interest. Therefore, a medium that is practical and can be understood by adolescents is needed, one of which is games (Rikandi & Nudin, 2022). The games provided should also be designed using interesting content and bring a “new” concept to provide a pleasant feeling for those who play it.

Visual Novel games are game concepts that can be used to describe the feelings of the five stages of grief that occur. Carrying a game that uses a branching storyline or story branching, players can choose the continuation of the story according to each player's decision and go deeper as a character in the game (Rikandi & Nudin, 2022). The characters shown also use a 2D animation style to give the impression of movement or gesture conveyed to the player, such as laughing, being surprised, crying, and others. Visual Novel games also use voice actors and music so that players can enjoy the storyline and explore the role of their characters.

Based on the explanation described above, the researcher tries to design a visual novel game as an introduction to the 5 stages of grief or the five stages of grief as a medium to help people understand, especially teenagers, in dealing with feelings of loss and provide an overview so that they can learn and understand the emotions they will feel.

2. METHODS

The research flow used follows the method used by Andrew (2019) by covering several stages so that the final goal of the research conducted can be achieved. With this method, the following are the stages of the research series carried out by the researcher:

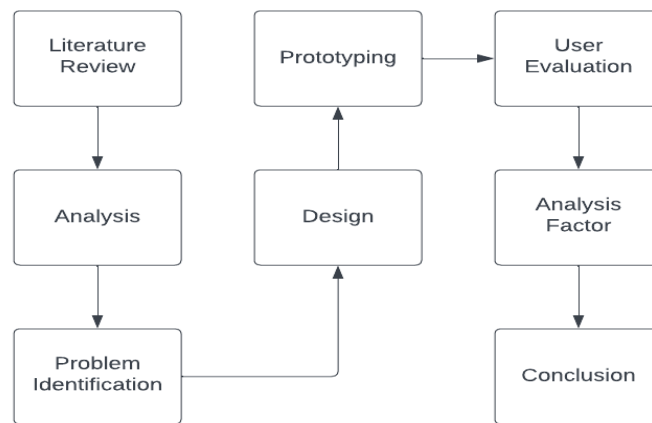


Figure 1. Research Methodology

2.1. Literature Review

At this stage, a literacy review or literature review is conducted. The concept, purpose, and direction of using visual game novels are determined. Here, the researcher looks for topics about grief or loss and how the 5 stages of grief are applied in society, especially adolescents. The 5 stages of grief, although of Western origin, have a very high relevance in Indonesian culture. Its application has been done in counseling activities in schools, support communities, as well as social media which is closer to the current generation. However, social media is more passive, focusing on social interaction and content consumption. So they need better interactions, such as games. Games offer a more immersive emotional experience than just information on social media. Therefore, researchers also explore information about visual game novels as an interesting educational reference that is easier to understand.

2.2. Analysis

Based on previous research, researchers analyze based on existing literacy reviews, ascertaining whether there are other problems that can be solved through this research. So that the problem was found, namely the absence of a form of visualization in the form of a visual game novel as a depiction of emotions in the 5 stages of grief.

2.3. Problem Identification

At this stage, problems related to the research were identified, including the client or target audience, user needs, and identification of the scope of the research. Based on the literacy review and analysis conducted, issues related to the 5 stages of grief were found that had never been depicted in the form of a visual game novel as a means of education in general.

In this stage, the target audience was also determined, namely adolescents aged 17-22 years. The basic reason is that besides their age, which uses cellphones a lot for learning media, their age is an age where emotional, social, and physical changes are more mature (Frionti, 2022).

In addition, in determining the needs of users, researchers also conduct evaluations with experts. With the aim of finding the right solution for delivering information related to the 5 stages of grief in the world of psychology, so that the game created does not provide misunderstanding information.

The following information was obtained through discussions with experts:

2.4. Expert's Statement

Evaluation with experts is carried out before entering the product manufacturing stage. The evaluation was conducted on May 27, 2023 with one of the Doctors of Psychology at one of the hospitals in Batam City. The evaluation was conducted by describing and explaining in advance the existing product design to get approval and assessment, whether the product to be made has met the rules in the world of psychology or not.

Based on the design submitted, the expert assessed that the game design did not follow the rules of psychology, especially in grieving. Another reason given was that in conveying an emotion, there are no right and wrong provisions, nor can points be given or not. Because each person responds with different actions or attitudes, the game design could give the wrong understanding to the player. The initial design was also said to be inappropriate if it had to be played by those experiencing grief because it could create other emotions when playing the game.

Through discussions with experts, a new design was produced that was more appropriate when it came to understanding emotions and grief. The discussion resulted in a design where the story was told from a third-person perspective that could help ease the burden of grief. The options were also changed to better, good, and less good choices that were described through attitudes or actions. This design aims to give players an idea, if someone is experiencing grieving what the more appropriate action to take is. The latest design was used until the production of this game product.

2.5. Design

At this stage, researchers determine references and images for the appearance of the game to be created. In addition, the fictional planning that will be conveyed in the game is also made in the form of a script. In this stage, the game structure specifications are also described through game flow and GDD (Game Design Document) as a detailed description of the game.

2.6. Game flow

The gameplay begins with the player reading the narrative first. There the player will be given the choice to continue the game or not. If the player chooses to continue, then the game starts. Otherwise, the player will automatically exit the game.



Figure 2. Start Flow

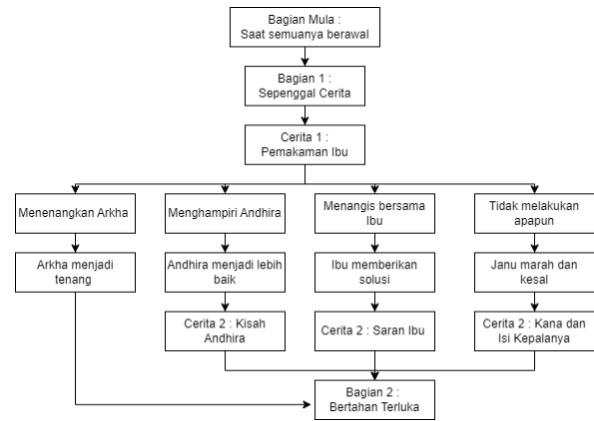


Figure 3. Part 1 Flow

The gameplay continues, with the player becoming the third person to help the main character, Kana. In the game, Kana wishes to help Arkha who is in a grieving situation due to the death of her mother. The player will go through several parts of the story and choose several options that appear, as a determinant of the end of the story. Players can choose several story options to go through by determining the choices that appear, which of course will provide a different ending.

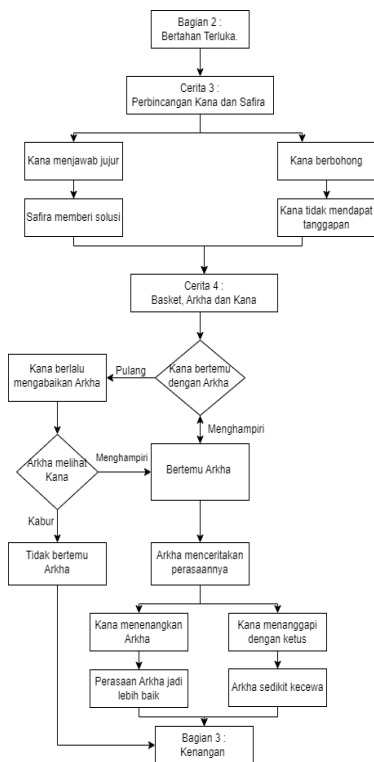


Figure 4. Part 2 Flow

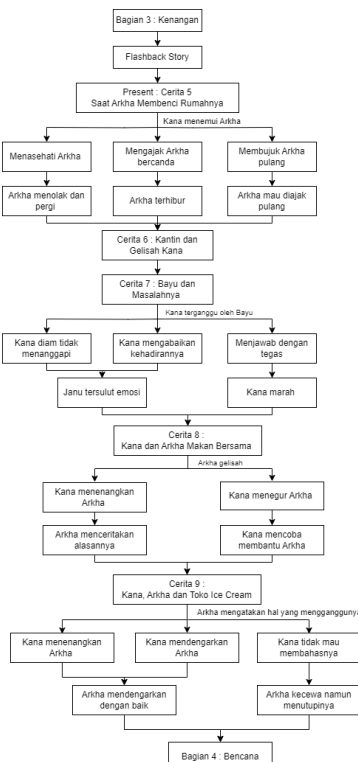


Figure 5. Part 3 Flow

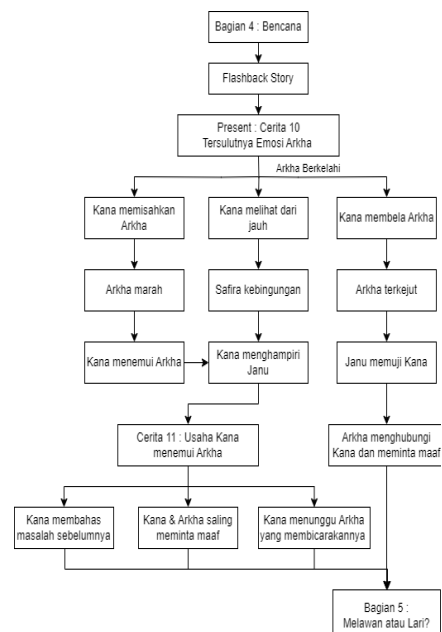


Figure 6. Part 4 Flow

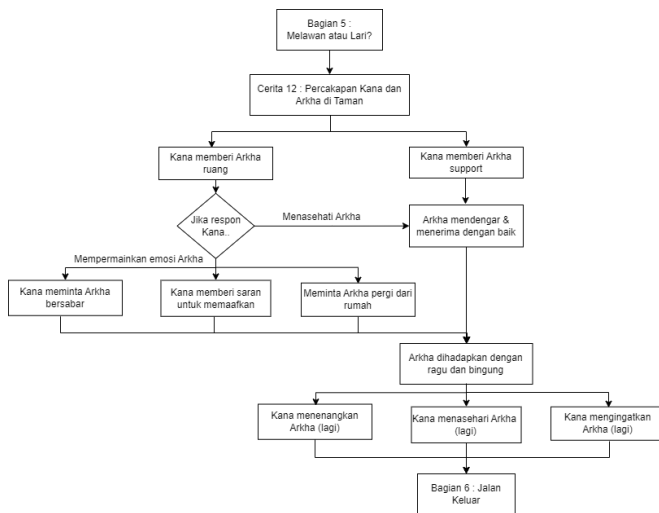


Figure 7. Part 5 Flow

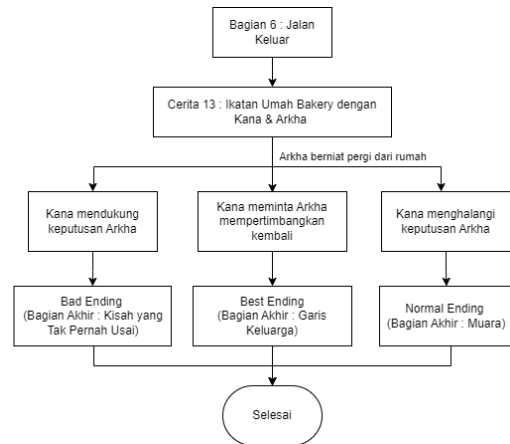


Figure 8. Part 6 Flow

3. RESULTS AND DISCUSSION

3.1. Prototyping

Continuing the design process, this stage is the stage of creating and collecting materials needed or required in the game, such as images, audio, video, and animation. In this research, illustrations and game characters are used through the Picrew and Itch.io websites. The asset creation stage can be explained through the following flow:



Figure 9. Use of Picrew



Figure 10. Use of Itch.io

After that, the previously obtained materials are combined and processed into a single unit according to the desired game design. In this stage, the combined materials that have been made are combined through the Ren'py Visual Novel Game Engine application.

Here are some views of the game:



Figure 11. Main Menu



Figure 12. Settings (Menu)

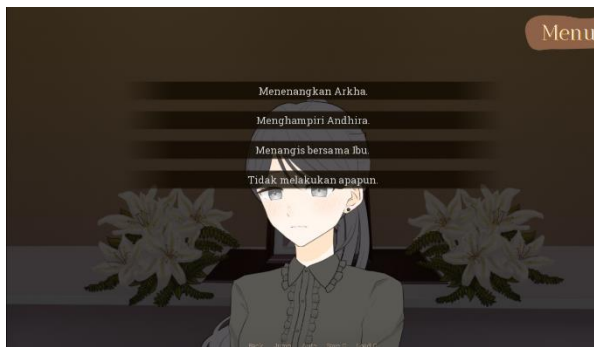


Figure 13. Options Menu

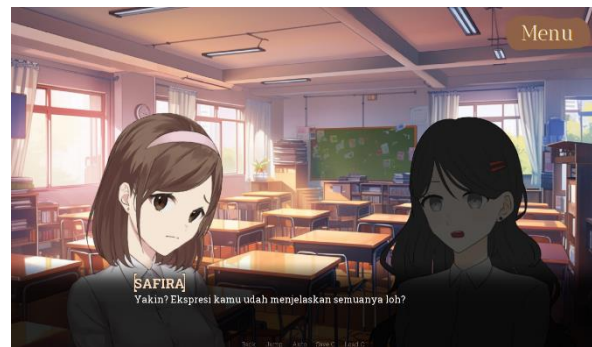


Figure 14. Class Scene



Figure 15. Basketball Hall Scene



Figure 16. Message Scene

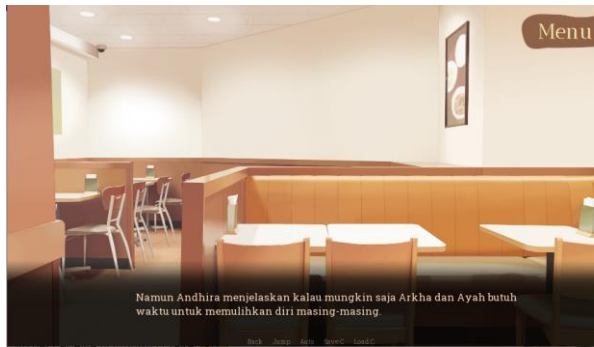


Figure 17. Narrative Scene



Figure 18. Exit

3.2. User Evaluation

At this stage, testing is carried out to ensure the game results are by the planning and target audience. Starting with sampling using Judgmental Sampling techniques and respondent interviews as an application of qualitative methods.

In general, qualitative research methods are methods that use in-depth and specific problem studies, which are oriented toward natural phenomena or symptoms with the understanding that one problem with another is different so that the solution is also different (Zuchri, 2021). Data collection techniques in qualitative methods consist of three things that must be done, namely observation, interviews, and documents (Kaharuddin, 2021). One of the data collection techniques used in this research is interviews.

3.3. Sampling

Before entering the interview session, the researcher first determines the respondents to be interviewed. Using Judgmental Sampling or Purposive Sampling techniques for sampling. Judgmental Sampling or Purposive Sampling is a strategy that can deliberately select people in certain events who can provide information as desired by the researcher (Firmansyah & Dede, 2022). Researchers use this sampling with certain considerations (Suriani et al., 2023), so that they can get the appropriate and desired statements.

The selection of respondents is done by filling out a questionnaire with Google Forms. Then the questionnaire was distributed to several people concerned to help spread to several classes in high schools, gaming communities, and cosplay communities. From filling out the questionnaire, the researcher got 3 respondents who fit the research criteria. Namely respondents with an age range of 17-22 years, like to play visual game novels, know about feelings of grief, are willing to conduct interviews, and do not experience technical or non-technical problems.

By choosing respondents who like to play visual novel games, it is hoped that the respondents' statements will provide sufficiently detailed information regarding the games they play. Because they like visual novels, they are indirectly accustomed to enjoying games with the same form as the product being tested. In addition, based on their knowledge of the feeling of grief, it is expected that they will be able to provide an explanation of the feelings described through the storyline in the game.

3.4. Game Distribution

After getting the respondents, the researcher contacted further regarding the game testing that would be carried out. After getting approval, the researcher distributed the game to the selected respondents to play the visual novel game that had been made. Researchers gave a span of 5 days to the respondents to play the game.

3.5. Interview

After the period for playing the game was over, the researcher contacted the respondents again to conduct interviews. The interviews were conducted using a structured interview technique, where the researcher already had questions that would be asked during the interview. Interviews with structured techniques allow data collection to have a directed picture when retrieving information, to achieve the desired answers (Zuchri, 2021).

Interviews are conducted online according to mutual agreement, where the results of the interview are recorded as information data that will be used to be analyzed by researchers. Interviews were conducted with 3 selected respondents who had previously filled out a questionnaire that was distributed first. The main criteria of liking to play visual game novels with an age range of 17-22 years and having knowledge about feelings of grief. Although the final number of respondents was only three people, the researcher has made every effort to get participation from various groups. However, the sensitive and complex topic of the research made many potential respondents reluctant to get involved. Nevertheless, it is hoped that the data obtained from these three respondents can provide a preliminary picture of the phenomenon under study.

Below, the respondents' information is included in table 1.

Table 1. Respondents Information

| No | Respondent Code | Age (y.o) | Gender | Status |
|----|-----------------|-----------|--------|----------|
| 1. | MAP | 22 | M | Employee |
| 2. | JA | 22 | M | Employee |
| 3. | ND | 17 | F | Student |

3.6. Analysis Factor

Based on the test results that have been obtained, the data obtained will be analyzed using qualitative data analysis techniques which consist of 3 data analysis activities including, as follows (Suttrisno, 2021).

3.7. Data Reduction

After passing through the interview stage, of course, the interview recordings must be written back in the form of transcripts so that they can be read again and the description of the respondent's opinion can be read more clearly. In addition, the transcript is also a reference for researchers to draw data conclusions.

Based on the results of the interviews conducted, the researcher tried to simplify the results of the interview into several important parts, namely the benefits of visual game novels for respondents, respondents' understanding of the explanation of the 5 stages of grief

through the game, respondents' opinions in terms of story, audio and visual, and how the visual and user experience when playing the game “Happiness”.

3.8. Data Presentation

The presentation of the interview data includes the following:

3.9. Benefits of Visual Novel Games

The interview started with questions related to the reasons why the respondents liked visual novel games. Based on the results of the interviews, respondents MAP and JA said that they were interested in games in the form of reading or stories, so by playing visual game novels their passion for reading was a little fulfilled. Meanwhile, the respondent ND said that he liked visual novel games because he could get a reading experience as well as a learning experience, especially foreign languages, such as Japanese and English.

3.10. 5 Stages of Grief

The results of the next interview, related to the story conveyed in the game “Happiness”. Whether it is able to convey about the description of the 5 stages of grief or not. According to respondent MAP, the conclusion related to the 5 stages of grief at the end of the game helps players understand the 5 stages, respondent MAP also thinks that each story tells the story well, but he cannot understand the stages through the story told.

Respondents JA and ND, stated that they were able to understand a little about the 5 stages of grief through the story. According to JA, the beginning of the story had discussed the death of someone so she felt familiar with the feeling of grief. Meanwhile, ND said that he also realized other emotions after the part about death was shown, although he considered that the romance genre also dominated the game. For both JA and ND, it was only after concluding the story that they understood that the story in the game “Happiness” explained the 5 stages of grief.

3.11. The story in The Game

According to Respondent MAP, the story of the game is quite capable of drawing one's empathy and sadness, so that from the choices and the story that runs he is quite carried away by emotions and gets into the story. Meanwhile, according to Respondent JA, he slightly disliked the romance genre that was also highlighted in the story, according to JA he preferred if the story had a plot twist and was not told with a normal plot like in this “Happiness” game. The respondent ND, stated that he liked the romance genre in the game, so in addition to feeling empathy, he was a little satisfied with the romance in the story so that he could deepen the story.

In terms of story conflict, respondent MAP said that the story is quite representative of the description of grief itself, clearly the beginning of the problem and the end of the story, although there are some relationships between characters that are still empty and not explained further. Respondent JA said that she didn't like the story because it was not detailed, the resolution was a little forced, and some stories were not fully explained, making it less satisfying from JA's point of view as a viewer of the story. Meanwhile, the respondent ND said that he quite liked the conflict of the story. According to ND, the completion of the

story can be understood well, even some scenes that appear in the story make ND a little carried away.

3.12. Visual dan Audio

According to respondent MAP, the characters and backgrounds used are enough to give a good visual picture, even though using free assets, MAP said some characters can still complement each other and are satisfying in terms of visuals. As for respondent JA, in terms of visuals, there is no problem and it is quite good. Meanwhile, respondent ND said that he knew a little about free websites to create the characters used, so he felt there was no problem with the visuals and felt that the design was enough to represent the story. As for the audio, according to respondents MAP and JA, they quite enjoyed the audio used because it was quite successful in building the mood and atmosphere of the game. However, according to MAP, the audio switching is a little abrupt, but it can still be listened to well. Meanwhile, according to ND, he often did not use the audio. Apart from the fact that he played the game in a public place, he felt that the images and dialog displayed were enough to describe the atmosphere.

3.13. UI (User Interface)

Concerning the User Interface, all three respondents said that they were quite annoyed by the menu buttons displayed on the game screen. All three respondents said that the button would be better made in another shape or symbol so that it is not too conspicuous. All three respondents also said that the size of the button was too big, which obstructed the visuals behind it. In addition, regarding the UI, respondent MAP said that the distance between character naming and dialog was too close, while respondents JA and ND said that the dialog text that appeared was too large, so they suggested making it smaller.

In addition to the menu buttons, the small buttons with the back, jump, auto, save, and load menus under the dialog section also received attention. For respondent MAP, if the button is intended to be used, it does not need to be separated from the existing menu button, plus the button is too small to be seen by the user. Meanwhile, according to respondent JA, the button does not concern him, because he prefers to focus on the story and there is no desire to use the button, and if it wants to be displayed JA suggests minimizing the appearance of the button because it will tempt players not to pay attention to the story. Meanwhile, according to ND, he suggested that the button be made in the form of a symbol located on the side of the dialog or placed in the upper corner, either left or right so that it can be seen properly.

In the interview, the respondents also discussed the copywriting, according to respondents MAP and ND, the writing was a bit confusing, because it was said that the characters were quite close, while the writing of the dialog did not depict that closeness. However, according to respondent JA, he did not pay much attention to the writing part.

3.14. UX (User Experience)

For the User Experience, all three respondents said that they as players were not made into characters and given a clear Point of View. So while playing the game they were confused about their position in the game. All three respondents said the choice to name the characters was good enough, but when they started playing the game, they were confused about their

role in the game. According to respondent MAP, she felt involved but did not know what role she was playing, as did respondents JA and ND. Despite not having a clear position as a character, the respondents could still involve themselves through the options that appeared.

Regarding the options or choices that appear in the game. According to the three respondents, the options written down already provide a significant difference, so they are not confused in choosing the continuation of the story. Although the respondents MAP and ND argued that they prefer a lot of interaction when playing visual novel games, this game “Happiness” is enough to represent the application of interaction as a pure visual novel game.

In addition to the assessment of POV and answer options, according to MAP respondents, the use of buttons in the menu should be clarified, so that users are not confused. There is no need to create two different buttons if the function is the same. Meanwhile, JA and ND respondents were not too concerned about the use of buttons available in the game.

4. CONCLUSION

Based on the series of processes that have been carried out in making the final project, starting from background search, problem formulation, game design, and game creation to testing and analysis, the following conclusions can be drawn:

1. The visual novel game “Happiness” was successfully created in 2D format, especially by utilizing Ren'py software as one of the applications for creating visual novel games.
2. The visual novel game “Happiness” succeeded in explaining the stages of grief experienced by a person in the 5 stages of grief through the story that runs in each part of the game.
3. The depiction of Point of View that is not clear to the player is one of the shortcomings in the “Happiness” game, but this game can still be enjoyed well through the options and answer choices that appear in the story, so that players can still be involved in the story. The future hope for this point is to clarify the POV so that the playing experience becomes better.
4. This study opens up opportunities for further exploration regarding the generalizability of the findings to a more heterogeneous population. In addition, the expansion of the research with a focus on adapting game design to accommodate various cultural expressions related to grief could make a significant contribution.

AUTHORS’ NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. The authors confirmed that the paper was free of plagiarism.

REFERENCES

Andrew, J., Henry, S., Yudhistira, A. N., Arifin, Y., & Diana, S. (2019). Analyzing the Factors that Influence Learning Experience through Game-Based Learning using Visual Novel

- Game for Learning Pancasila. *Procedia Computer Science*, 157, 353–359. <https://doi.org/10.1016/j.procs.2019.08.177>
- Andsten, J. (2021). Developing a Visual Novel Framework for Roleplaying Games. December.
- Anggraini, D., & Fu, M. (2021). Perancangan Game Visual Novel Untuk Anak SD Sebagai Media Pembelajaran Bahasa Inggris. *Journal of Information System and Technology*, 2(3), 1–9.
- Camingue, J., Carstensdottir, E., & Melcer, E. F. (2021). What is a Visual Novel? Proceedings of the ACM on Human-Computer Interaction, 5(CHIPLAY). <https://doi.org/10.1145/3474712>
- Dwiartyani, A., Hasan, A. B. P., & Arief, H. (2021). Gambaran Proses Grieving Pada Dewasa Awal Yang Mengalami Kehilangan Anggota Keluarga Akibat Virus Covid-19 Adelia Dwiartyani 1, Aliah B. Purwakania Hasan 2, Hanifah Arief 3. *Jurnal Psikologi Prima*, 04(01), 20–32.
- Firmansyah, D., & Dede. (2022). Teknik Pengambilan Sampel Umum dalam Metodologi Penelitian: Literature Review. *Jurnal Ilmiah Pendidikan Holistik (JIPH)*, 1(2), 85–114. <https://doi.org/10.55927/jiph.v1i2.937>
- Fronti, V. R. (2022). Kedukaan Pada Remaja Akhir Yang Mengalami Kematian Orang Tua di Kartasura. In Universitas Islam Negeri Raden Mas Said Surakarta (Issue 8.5.2017). Universitas Islam Negeri Raden Mas Said Surakarta.
- Jacobsen, M., & Petersen, A. (2020). Exploring grief. Taylor and Francis.
- Kaharuddin. (2021). Kualitatif : Ciri dan Karakter Sebagai Metodologi. *Jurnal Pendidikan*, 9(1), 1–8.
- Lia, S. (2022). Penggunaan Sudut Pandang Tokoh Utama Untuk Mempresentasikan Teori 5 Stages Of Grief Kubler Ross Dalam Penulisan Skenario “Senandika Lara.” Perpustakaan ISI Yogyakarta, 8.5.2017, 2003–2005. <https://www.who.int/news-room/fact-sheets/detail/autism-spectrum-disorders>
- Nanah. (2022). Apa itu picrew dan untuk apa situs itu? Alucare. <https://www.alucare.fr/id/apa-itu-picrew-dan-apa-itu-situs/>.
- Ojala, M., Cunsolo, A., Ogunbode, C. A., & Middleton, J. (2021). Anxiety, Worry, and Grief in a Time of Environmental and Climate Crisis: A Narrative Review. *Annual Review of Environment and Resources*, 46, 35–58. <https://doi.org/10.1146/annurev-environ-012220-022716>
- Putra, I. R. F. E., Kasih, P., & Mahdiyah, U. (2021). Aplikasi Game Visual Novel Sebagai Media Pembelajaran dalam Pengenalan Teknologi Komputer Menggunakan Aplikasi Ren ' py. *Seminar Nasional Inovasi Teknologi*, 77–84.
- Rikandi, N. C., & Nudin, S. R. (2022). Rancang Bangun Visual Novel Peduli Lingkungan dengan Metode Procedural Content Generation. *Journal of Informatics and Computer Science (JINACS)*, 4(01), 131–142. <https://doi.org/10.26740/jinacs.v4n01.p131-142>

- Suriani, N., Risnita, & Jailani, M. S. (2023). Konsep Populasi dan Sampling Serta Pemilihan Partisipan Ditinjau Dari Penelitian Ilmiah Pendidikan. *Jurnal IHSAN: Jurnal Pendidikan Islam*, 1(2), 24–36. <https://doi.org/10.61104/ihsan.v1i2.55>
- Sutrisno. (2021). Analisis Dampak Pembelajaran Daring Terhadap Motivasi Belajar Siswa MI Muhammadiyah 5 Surabaya. *Jurnal Riset Madrasah Ibtidaiyah*, 1(1), 1–10.
- Wang, R.-R., & Wang, Y. (2021). Using the Kübler-Ross Model of Grief with Post-Traumatic Stress Disorder (PTSD): An Analysis of Manchester by the Sea. *Metathesis: Journal of English Language, Literature, and Teaching*, 5(1), 79. <https://doi.org/10.31002/metathesis.v5i1.3700>
- Zuchri, A. (2021). Metode Penelitian Kualitatif. CV Syakir Media Press.