

2D Animation PSA: Cleft Lip and Palate Awareness

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Abstract— This study is a Public Service Announcement (PSA) video for parents on Cleft Lip and Palate Awareness. The most common serial congenital anomalies affecting the orofacial region are cleft lip and palate. These defects affect approximately 1.7 out of every 1000 liveborn babies, with ethnic and geographic variations. Cleft lip and palate are two of the most common congenital disabilities in children. Cleft lip and palate are caused by the failure of these structures to fuse during the early stages of fetal development. Parents were unaware of the symptoms, factors, and treatment associated with cleft lip and palate. There are few platforms for sharing knowledge and information. The PSA focuses on educating parents about cleft lip and palate symptoms, factors, causes, complications, diagnosis, and treatment. The goal of this project is to educate parents about the symptoms of cleft lip and palate and how to spread awareness about it. The next step is to create a 2D public service announcement animated video to raise awareness about cleft lip and palate. The final goal is to assess the PSA's effectiveness in communicating the message about cleft lip and palate to parents. The ADDIE Model was used in the PSA development with multimedia instructional solution. In conclusion, this study hopes to gain recognition for educating parents about cleft lip and palate. As a result, this PSA 2D Animation will raise their awareness about how to spread awareness, gain a better understanding of the cleft, and gain useful knowledge about cleft lip and palate.

Keywords—Public Service Awareness (PSA); 2D Animation, Cleft Lip and Palate; Spread Awareness; Parents.

I. INTRODUCTION

This chapter will help you better understand cleft lip and palate. Cleft lips occur when the lips form between weeks 4 and 7 of pregnancy. The upper lip of a cleft baby is not fully developed and has an opening. The face develops as body tissue during pregnancy, with distinct cells migrating from the sides of the head towards the center of the face. A cleft can occur on one or both sides of your lip or very rarely in the middle. Cleftpalate occurs between weeks 5 and 9 of pregnancy when the palate does not fully fuse during pregnancy.

Some infants have an open palate on both the front and back. When a child has a cleft lip or palate, whether visible or not, they typically have difficulty eating and speaking properly and are

more prone to ear infections. They may have hearing problems as a result of tooth problems. A cleft lip, with or without a lip, is the working definition for cleft lip and palate.

Every year, over 250,000 Malaysian children are born with cleft lip and palate. Kuala Lumpur Maternity Hospital delivered 52,379 of her 52,379 babies. Clefts occurred at a rate of 1.20 per 1000 or 1.24 per 1001 live births. Mitchell, L. (2018) Cleft lip and palate awareness discusses background information for official announcements and attempts to comprehend how public service awareness (PSA) can be used to communicate with the general public. This message can be used as an educational tool to raise community awareness of young children with cleft lip and palate.

A. Objective

The objective of this research is to identify the parent about the symptoms and how to prevent of spreading awareness about cleft lip and palate. This PSA needs to develop 2D PSA videos to spread awareness about cleft lip and palate. Besides, this objective needs to evaluate the effectiveness of PSA in conveying the message about cleft lip and palate to the parents.

B. Problem Statement

There are a few people who do know more about cleft lip and palate. Cleft lip and palate are among the common congenital disabilities affecting children in Malaysia. Cleft lip and palate are caused by the failure of these structures to fuse during the early stage of fetal development. Parents also were not aware of cleft lip and palate such as symptoms, factors and treatment. Besides, there are few platforms to provide knowledge and information. Sometimes all the info about cleft lip and palate unclear then it will confuse the parents to gain knowledge.

II. RESEARCH QUESTION

For the research question have three which is "Can Public Service Announcement be an effective method to gain knowledge?". Second is "How 2D Animation PSA affects the parents in cleft lip and palate?" and the last one is can the 2D

Animation PSA help their parents when the babies have cleft lip and palate ?”.

III. LITERATURE REVIEW

Based on the summary in case study, the research chooses the best element in case study for creating video PSA 2D Animation. They must concentrate on the components that will be in the video in order to create a high-quality and engaging video. They include narration, the visual background, the typefaces, the voice, the sound background, the color, the subtitle, and the duration.

A. Public Serviv Announcement

The researcher uses PSA to raise awareness and modify public attitudes, opinions, or even behavior towards a particular topic. These can be educational, inspiring, or even scary in order to provoke emotion and action. *For author/s of only one affiliation (Heading 3):* To change the default, adjust the template as follows.

B. Case Study

I. Closure of Cleft Lip

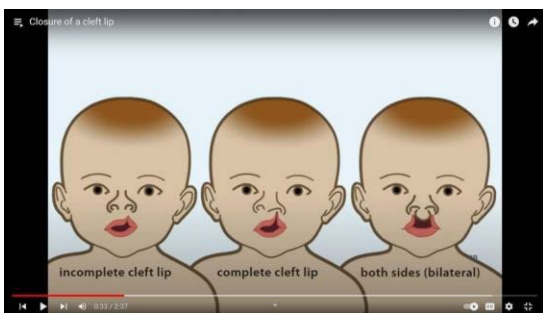


Figure 1 : PSA Closure of Cleft Lip

Based on figure 1, discuss about closure cleft lip and palate. In this casestudy the audience won not be disturbed while watching this movie until the very end, and the shortcomings are highlighted using pastel colors, making the film uninteresting to watch all the way through. The drawing in this video is also well done. Due to the lack of subtitles, this will confuse viewers and force them to watch until the very finish. A good message to inform their parents about cleft lip and palate and limitations is delivered in a video that moves too quickly for the viewers to comprehend.

II. Cleft Lip and Palate Surgery



Figure 2 : PSA Cleft Lip and Palate Surgery

Based on figure 2, cleft lip and palate surgery. This video use combination color they use is very nice and for the weaknesses use similar color and it make the video look dull. Next, they use good elements such as font, text, and picture and duration in this video is very long. It makes the audience bored. Good message to aware their parents about the cleft lip and palate is strength and weakness the voice narrator is not clear; it is making the audience did not watch until end.

IV. RESEARCH METHODOLOGY

Research methodology refers to the techniques or tactics used to locate, select, analyze, and analyze material. Based on the lack of an appropriate multimedia PSA educating parents about cleft lip and palate, this study aims to illustrate the best strategies for accomplishing this goal. This chapter covers the project approach that will be used in this project, which is based on the ADDIE model. ADDIE is an abbreviation that stands for research, development, implementation, and evaluation.

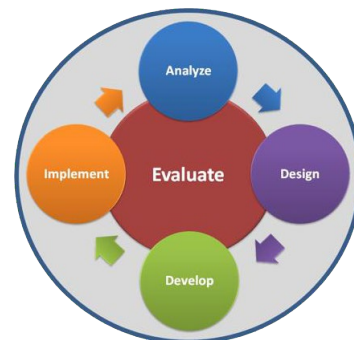


Figure 3 : ADDIE Model

1) Analysis

The first phase of this project was to determine the right title to accommodate the presentation of the research topic. The researcher should explore similar topics so that moving on to the next phase is simple. Furthermore, the researcher must do a case study to determine whether the materials employed in a film are appropriate or not. This case study is significant because good aspects must be present before creating a video.

2) Design

The research found the details in the literature review during the design process to relate the study's outcome. The research includes characters, backdrop, typeface, interface, color, audio, sound, and graphic coordination with the theme in 2D PSA narration. A case study was also undertaken as part of the research.

3) Development

The project was designed using Adobe tools. Procreate was used in the storyboard process. It tracks the image and drawings to get the final 2D animation result. Adobe Animate 2019 software was utilized in a 2D image animation process. Each image is animated using key frames, part by part. To complete all of the animation, the researcher assembled all of the animation scenes as a film Adobe Premiere Pro.

4) *Implementation*

All the animations will be assembled into a video during the implementation process. The penultimate stage in which the researcher conducted testing. Before the final process of sending questionnaires to the target audience was carried out, the last check was done for errors or problems.

5) *Evaluation*

This project's last phase is evaluation. This instructional designer must review each step to ensure that the objectives are met, as well as do a summative evaluation. It will be easier to acquire data with questionnaire research employing sample methods and delivering online surveys. Questionnaires will focus on how the audience understands the goal of the developer's message. When the evaluation was completed, the research team assessed the project before presenting it.

V. PRODUCT DEVELOPMENT

Research methodology refers to the techniques or tactics used to locate, select, analyze, and analyze material. Based on the lack of an appropriate multimedia PSA educating parents about cleft lip and palate, this study aims to illustrate the best strategies for accomplishing this goal. This chapter covers the project approach that will be used in this project, which is based on the ADDIE model. ADDIE is an abbreviation that stands for research, development, implementation, and evaluation.

1) *Design*

In this phase will discuss design development. The process of creating a product that people utilize is called design. Before beginning any project, the developer must consider how they want the finished product to look. The process implementation includes storyboard design, character design, object design, background design, color, and editing.

2) *Storyboard*

A storyboard is a linear sequence of drawings arranged to depict a tale. The developer begins to draw some designs or interfaces for the video. Sketching assists the developer in determining and comprehending the type of project they wish to produce. A storyboard can also assist developers in understanding the project's flow step by step. This storyboard is divided into three sections: introduction to cleft, cleft factors, and how to care for a cleft baby.

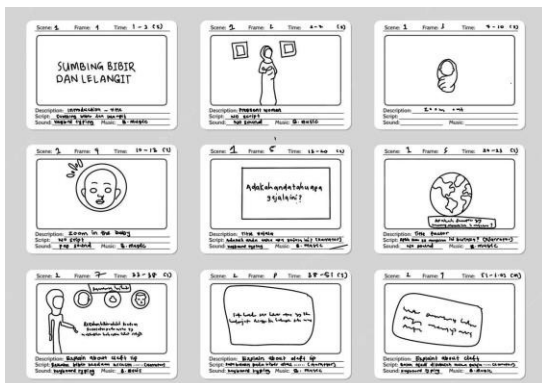


Figure 4: Storyboard

3) *Theme and Concept*



Figure 5: Theme and Concept

From figure 5, the developer chooses pink and blue because this color will bring a good outcome to blend in well with the video. This project is basically to raise awareness about the cleft lip and palate. Nowadays all parents do not know how to handle this case.

4) *Development*

This section will go over all the criteria for completing this project. This section will concentrate on making a digital image, a digital animation, and collating photos. To produce a digital image, the developer employs Procreate. The developer uses Adobe Animate to produce digital animation and gather photos, and Premier Pro for editing.

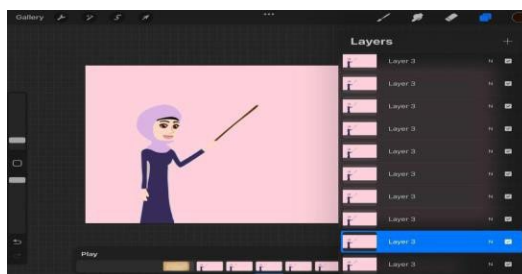
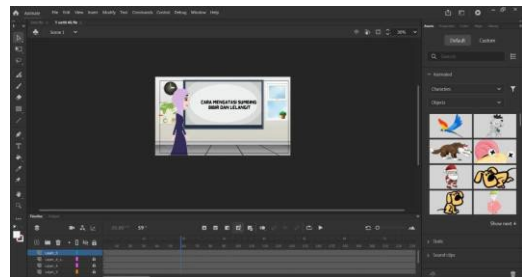


Figure 6: Progress Development

5) *Typography*

Typography is an essential part of user interface design and involves much more than just selecting lovely fonts. Strong visual hierarchy, graphic balance, and the overall tone of the product can be achieved with good typography.



Figure 7: Typography

6) *Colors*

Color can direct to specific spots on the scene, where the director wants to focus on. Color can also make scenes really stand out and seem more enhanced.



Figure 8: Colors Pallate

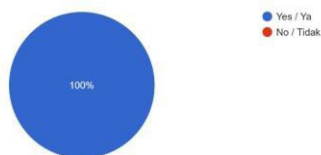
7) *Testing*

This prototype will be shown to the community, which is the researcher's target user. The researcher will provide the YouTube URL to test the project's functionality.

VI. FINDING AND RESULT

This section discusses the conclusions after presenting the data analysis results in three categories. The first component contains demographic information from respondents. In the second segment, the user interface and user experience for the PSA 2D animation are presented, and in the third area, the content information for cleft lip and palate awareness is offered. Once the data is available for evaluation, the developer applies several research and data analysis approaches.

1. Is it simple to interpret the text and colors used in this video? / Adakah warna dan tulisan yang digunakan dalam video ini senang dibaca?
36 responses



1. Do you understand about cleft lip and palate? / Adakah anda faham tentang sumbing bibir dan lelangit?
36 responses

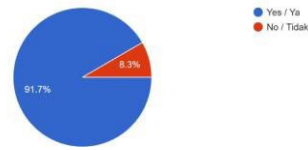


Figure 9: Section B

Based on figure 9, 100% respondents choose yes for question about the text and colors used in this video. Respondents choose yes because they understand what the researcher uses the color and text.

VII. CONCLUSION AND RECOMMENDATION

As a result, this project was successful in achieving the objectives outlined in the first chapter, such as identifying the symptoms and how to prevent spreading awareness about cleft lip and palate, creating a 2D PSA video to so, and evaluating the PSA's efficiency in informing parents about cleft lip and data analysis approaches.

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