

Stop Motion Animation Short Film: the Spread of COVID-19 virus Prevention

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ABSTRACT

The research on stop motion animation short film : the spread of covid-19 virus prevention, the objectives of the study were 1) how to prevent the spread of COVID-19 2) to realize the prevention of COVID-19 people have more self-protective behaviors; Especially wearing a hygienic mask every time when going to the community, regularly washing your hands with soap or alcohol gel and keeping a distance of at least two meters. Avoid bringing your hands to touch your eyes, nose and mouth. Moreover, the prohibit share personal items with others (such as handkerchiefs, glasses, towels) due to pathogens in the gastrointestinal tract and breathing can enter the body through contact with the secretions of an infected person. Should be eating hot cooked food. The awareness of the impact of the COVID-19 pandemic is of great importance, in order to study the knowledge of protection and prevent possibly spreading COVID-19. The media that can enhance learning and remembering in the form of digital online media will help to understand. It is part of stopping the spread of the virus and explaining the prevention of the spread of the epidemic.

A samples of 50 people aged 16 to 21 years, using simple random sampling method. The mean and the standard deviation data were used for data analysis and the evaluation from 3 experts. A quality assessment and performance evaluation of our media were a good level. The findings indicated that, learned how to make a stop motion animation film with the interesting process. The equipment preparation various settings in production which will have many limitations, learning from the beginning process until the completed of the process. It will be the experience and can be accumulated for animated films jobs.

Keywords: prevention of COVID-19, Stop-motion, Short Film

INTRODUCTION

The cause of the virus was the spread of the virus from an intermediate animal to the first known human patient. Symptoms began on December 1, 2019 and have linked to the suspected market in Wuhan city. Many cases in China may have been since mid-November or before. Environmental samples were taken in the market for testing where the virus was found and it is mostly common in wildlife and farm animal trade areas. It is the origin of the virus or may play a role in the spread of the epidemic in the early stages. The world is aware of the mysterious contagious disease. After the

Article history:

Received 27 April 2022; Received in revised from 24 May 2022;

Accepted 7 June 2022; Available online 25 June 2022

Chinese authorities confirmed on December 31, 2019 that a new strain of virus outbreak occurred in Wuhan city. It has a population of more than 11 million, after collecting virus samples from patients for analysis in laboratories, China and the World Health Organization later labeled the virus as "coronavirus". Six previously known strains of the coronavirus have been identified. There has been an outbreak in humans for the new coronavirus, the seventh strain. Thai people have known this family of viruses from severe acute respiratory syndrome: SARS, which is also caused by the coronavirus. The first outbreak was founded in late 2002, starting from the Guangdong province of China. Before spreading to many countries so far, more than 8,000 people had been infected and killed nearly 800 people around the world. The Covid-19 is primarily spread from person to person through droplets from a sick person or by touching a hand to a sprayed surface. Those droplets and then caught on the face. The time from infection and onset of symptoms ranged from 1-14 days and averaged 5-6 days. The number of over 97% of patients had onset of symptoms within 14 days. The digestive system is not confirmed. The range of transmission is likely to occur at the beginning of symptoms and decrease thereafter. The precautions and understanding of the spread of COVID-19 virus, prevention methods by using media as a tool for transmission and publicity. A children comics development with the preventing COVID-19 (Munjiatun, 2021) purposed feasibility of making, produce and test the effective these products. That results show that suitable for children understand the danger of COVID-19 virus and prevention. The research design virtual reality simulation system for epidemic (Covid-19) education to public (Liang, Z, 2021) design education system, interactive technology, virtual simulation technology showed that 7 major emergency treatment processes. These result showed that the system can introduce an immersive user experience (UX) in medical learning.

Therefore, our research came up with the idea of preventing the spread of COVID-19 with stop motions animation that will help attract the attention of the general public to know and understand to prevent the spread of COVID-19, be able to recognize. The general public always washing your hands and wearing a mask every time you go out every time more.

LITERATURE REVIEW

The COVID-19

The COVID-19 is a contagious disease caused by the most recently discovered coronavirus. The virus and the emerging disease were unknown before the outbreak in Wuhan city, China in December 2019 currently, COVID-19. There is a widespread outbreak affecting many countries around the world Ilder-Smith, (Ilder-Smith et al., 2020). Common symptoms of COVID-19, mostly common are fever, cough and fatigue. The less common sometimes that may affect some patients include aches, stuffy nose, runny nose, sore throat, diarrhea, loss of taste in the tongue

and inability to nose, odor or skin rash. These symptoms are usually mild and begin gradually. Some people are infected but have mild symptoms. Most patients, 80 percent recover without hospitalization. Study found about 1 in 5 of those infected with Covid-19: heaviness and difficulty breathing elderly people with chronic diseases such as high blood pressure, heart disease, diabetes, or cancer are more likely to have more serious illnesses. However, anyone can get COVID-19 (Petrosillo et al., 2020) and may be severely ill people of all ages with symptoms of fever or coughing with shortness of breath, chest pain, loss of voice, or loss of movement should be consulting a doctor immediately. If possible, it is advisable to call ahead of time for the hospital to give advice.

The assessment must consider including the infection, the human body, the supporting factors that facilitate the spread and causing more violence than usual not just looking at the breed. Only like men are at higher risk of infection and severity than women who are still having hormone-related menstruation. People with brain disorders are dementia or dementia and are more prone to infection and more severe symptoms, and when cured, dementia will get worse. People with cardiac abnormalities and found to have more soluble ACE2 will randomly sound higher. Coronaviruses have evolved over a long period of time with variations in each segment of the genetic code which has a specific function of attaching to cells to suppress the body's fight to allow the virus to survive in the cell and multiply. Coronavirus or Covid-19 virus, it is a virus strain that has only been contagious to humans since December 2019. The virus can cause severe illness and some human pneumonia. Transmitted from infected person to others through the air by coughing and sneezing. Close contact such as touching or shaking hands and touching objects or surfaces that have the virus then use your hands to hold your mouth, nose or eyes.

The prevention COVID-19

However, COVID-19 is not determined from the classification that is a species. It can be prevented, wearing a mask to protect your face, washing your hands, eating cooked food, maintaining a distance, cleaning public surfaces, be careful when traveling by public transport.

1) Avoid close contact with patients who have cough, sneeze, runny nose, breathlessness, sore throat.

2) Avoid traveling to risk areas.

3) Wear a face mask whenever in public.

4) Be careful of touching unclean surfaces. And there may be germs on the island, including things that people catch often. Be careful of the handles on the BTS, MRT, Airport Link that open and close the doors in the car. Various door locks, faucets, handrails, handrails, when you touch them, do not touch your face and personal belongings such as mobile phones and bags

5) Wash your hands regularly with soap or alcohol gel for at least 20 minutes, with an alcohol concentration of not less than 70%.

6) Avoid touching your eyes, nose, mouth while not washing your hands.

7) Avoid getting close touch with different animals without protection.

8) Eat cooked and clean food, do not eat food made from rare animals.

9) For medical personnel or those who directly care for patients infected with the Coronavirus or COVID-19, should wear a mask or safety glasses. To prevent infection in droplets from phlegm or eye secretions.

Stop motion Techniques

The advancement in technology is moving very fast, flowing out uninterrupted for entertainment purposes or for advertising. In particular, the various types of animated films (Abdrashitov et al., 2019), whether it be 2D or 3D are common in TV and movie theaters. However, there is one type of animation that is equally popular. It is a stop-motion animation movie, which seems like a simple job of animation does not require complex computer programs. The characters and scenes are realistic, tangible with not very large characters. Which is popular to create a size of about 15-50 centimeters. However, the filming process challenged the creators' abilities as it required real cameras, real lighting and all the necessary props. It is not just something created on paper or a computer screen. Although stop-motion animation films have many limitations whether the movement. The lack of smoothness in the movement of the characters, because it looks like the picture may be jittery. But that's the charm of this kind of animation which other technical animations may inspire to be possible according to the imagination of the filmmakers. The complexity in the simplicity of a stop-motion movie animations that are not boring to watch to be able to touch. It does not look like an illusion or too close to reality such as a rather detailed creative process was required. It's a craft that takes time determination, dedication whether it is a technique for creating a character scene making techniques photography techniques and cutting techniques. The whole process is close to filming with a film camera. It only takes up a smaller working area.

Stop-motion is a form of animation where all parts of an image are created in a way other than drawing on a sheet of paper or a cell (Akkharaphon, 2018). They also had to strain their hands to move their shape. The gestures of these components were filmed frame by frame by the camera. In the late 1800s, stop motion was created by injecting movement into immovable objects. In the old days, most of the stop motion was done with non-moving objects, taking pictures and moving the subject little by little and taking the photo over and over again. When a certain number of images are obtained, they will be put together to make a movie. The first short stop motion feature based on this technique was *The Humpty Dumpty Circus*, created by Albert Smith and Stuart Blackton in 1899 (Brostow & Essa 2001). There are various techniques for taking stop-motion shots, such as:

1) Clay animation: (abbreviated as Claymation) is an animation that uses a puppet made of clay, wax or a similar material by inserting a wire frame inside to allow bending.

2) Cutout animation: In the past, this kind of animation was done by using 2D materials (such as paper, cloth) cut into different shapes and thought them to move to capture them one frame at a time. However, how to draw or scan images use into the computer at all.

3) Graphic animation: It is another interesting technique. caused by bringing the camera to take various still images that we have chosen (It is can be pictures from magazines, newspapers, etc.) one by one, frame by frame and then stitched together like a collage, possibly using other animation techniques.

4) Model animation: It is to make the character model up and move then overlay the images with real people and realistic backgrounds.

5) Object animation: However, it is toys, puppets, dolls, Lego bricks, etc., anything that is not a material that can be modified to look like clay.

6) Pixilation: It is a stop-motion that uses real people to move little by little and capture frame by frame. This technique is perfect if you are doing animations with puppets that play with people and you want both puppets move in the same way or have a twitching mood.

METHODOLOGY

The method of this study is preproduction design process, production process and postproduction process shown in figure 1. This research and development stop motion short film consist of storytelling, storyboard, characters design, location scene, edit and sequence image, sound effect, special effect, test and fixed scene, etc. The technique and each process are to know that the short film animation process, the prevent and spread of COVID-19 pandemonic, the process to reducing details for create short film animation story and focus on simple communication.

1) Concept gathering process: Start with brainstorming and then choose a topic to work on. The spread of COVID-19 virus prevention is the topic selected used the stop motion presented.

2) The process of finding information: After selecting a topic is completed. Therefore, our team have been researching for information on that matter.

3) The process of writing a prologue chapter: By researching, collecting information, arranging the story in order to write a storyboard (shown in figure 2). The idea is a story about the beginning virus monster from the boy character and the girl character fight the virus monster by alcohol spray. The girl introduces the process to protected the spread of virus: wear the mask and wash your hands prevention COVID-19. Finally, the hero receives the mask and gel alcohol.

4) Production process: create character modeling form the 3D characters design, used in the scene (light and camera setting) and then creating the animation movement (about thousand images). Next process editing the sequence of scenes used Stop-Motion Studio software and adding sound effects.

5) Testing and error detection procedure: After finding an error within the media, the error is corrected.

6) Preparing a research report: collect data for analysis from the assessment form and summarize results (statistics data: average and standard deviation, followed equation (1) and equation (2)) and finally created a research report.

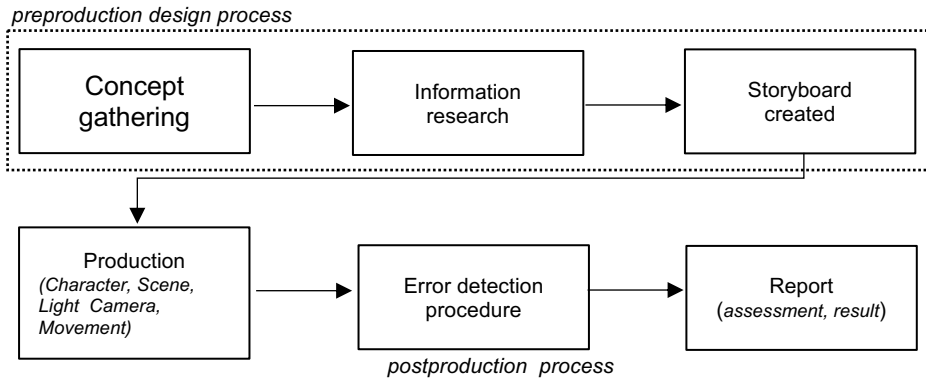


Figure 1. Research methods the stop motion animation short film: the spread of COVID-19 virus prevention.



Figure 2. Storyboard stop motion animation short film: the spread of COVID-19 virus prevention.

$$\text{Average } , \bar{x} = \frac{\Sigma x}{n} \quad (1)$$

by \bar{x} is average, Σx is sum of sample value, n is the numbers of sample

$$\text{Standard deviation, S. D.} = \sqrt{\frac{n\Sigma x^2 - (\Sigma x)^2}{n(n-1)}} \quad (2)$$

by S.D. is standard deviation, Σx^2 is sum of sample square value, n is the numbers of sample.

RESULTS

Our development research about the prevention of COVID-19 which aims to study and understand about how to prevent the spread of COVID-19 through stop-motion media which the sample group is 50 students of Chandrakasem Rajabhat University evaluated the effectiveness of stop motion. Our research in order to be able to continue to develop:

- 1) Media images, stop-motion media design techniques.
- 2) The results of the analysis of data from the storyboard quality assessment questionnaire by experts.
- 3) The results of the analysis of data from the media quality assessment form by experts.
- 4) The results of data analysis from media user satisfaction questionnaire. The Media images, stop-motion media design techniques show the shooting scene as shown in Figure 3.



Figure 3. Filming scene, the lighting scene.

The opening scene of the media and the title as shown in figure 3. Next scene Nai Lan sits and zooms in to the nearby, Nai Lan eats a bat and faints at the table the COVID launch scene and zoom in closer and cut it into a black scene, Mee Mee's opening scene and encounters the virus. The fight scene between Mehmee and the undead covid a scene of me spraying alcohol spray on the virus. The death of the covid virus to help and warn Nai Lan not to eat strange food. Mee Mee giving a mask to Nai Lan and Nai Lan wearing a mask. Mee Mae and Nai Lan distribute masks to the people where he talks about the prevention of COVID-19. The ending scene and end credit was rolled.

The results of the validity analysis of the storyboard questionnaire evaluation by 3 experts are as follows table 1. The results of the analysis of data from the media quality assessment and the reliability analysis of the media questionnaire evaluation by 3 experts are as follows table 2.

Summary of storyboard quality assessment of stop-motion media development techniques about the prevention of COVID-19 by 3 experts, the data was analyzed for mean and standard deviation. The quality of the development of stop-motion media development techniques. The assessment of media quality is divided into 7 areas as follows: 1) The storyboard content has a mean of 3.61 and a standard deviation of 0.55. 2) The story progression is continual and appropriate for the age of the learners has the mean is 4.00 and the standard deviation is 0.00. 3) The duration of the media is appropriate for the content has the mean is 4.00 and the standard deviation is 1.00. 4) The design and execution of the story and the attractiveness and suitability of the characters and the accuracy of the content and content are consistent with the objectives in full has the mean 3.67 and the standard deviation is 0.58. 5) The content can be applied to daily life and knowledge expected from stop-motion media development on COVID-19 prevention with an average of 3.33 and the standard deviation is 0.58. 6) The suitability for image editing and sound use with a mean of 3.00 and a standard deviation of 0.58. 7) They can be used as a learning has a mean of 3.00 and a standard deviation of 1.00. These results shown in table 1.



Opening scene and title



Mr. Lan sat and zoomed



Mr. Lan eats and faints



Launch of the covid virus monster



Mee Mee debuted and encountered mons.



Fighting Sconce



Mee Mee spraying alcohol



She went to help and admonish

Figure 4. The scene of stop motion animation short film: the spread of COVID-19 virus prevention.



Handing over and wear a mask



Handing out masks



Epidemic prevention COVID-19



End credit showed

Figure 4. (continued) The scene of stop motion animation short film: the spread of COVID-19 virus prevention.

The results of the evaluation of the effectiveness of stop-motion media development techniques about the prevention of COVID-19 by 3 experts, the data was analyzed for mean and standard deviation. The standard in summary is the quality of stop-motion media development techniques. About the prevention of COVID-19 The satisfaction assessment form is divided into 5 areas as follows: 1) The content, with a mean of 4.67 and a standard deviation of 0.38. 2) The picture and sound with a mean of 4.00 and a standard deviation of 0.91. 3) Applications had a mean of 4.67 and a standard deviation of 0.38. overall, with a mean of 4.22 and a standard deviation of 0.77 4) Quality of video media has a mean of 4.33 and a standard deviation of 0.58. Summary of media performance assessment overview the mean was 4.38 and the standard deviation was 0.61. These detailed results shown in table 2.

The results a summary of the performance evaluation levels in terms of content, visual and audio, usage, overall and quality of video media of stop-motion media show that content and usage was highest level very good because our most sample were interested our media. It was a classic attractive media and the story was a simple to understand. The sample who watched the media raise awareness of the dangers caused by the spread of covid-19. Including preventing the spread by using a mask and washing hands, alcohol gel when going outside.

Table 1: shows the storyboard quality assessment level in terms of usage. Stop motion media development techniques about the prevention of COVID-19.

No.	Storyboard Quality Assessment Form	Level of agreement		
		(\bar{x})	(S.D.)	Transform
1	Story design and execution	3.67	0.58	good
2	Appropriate for image processing and sound use	3.00	0.58	moderate
3	The attractiveness and suitability of the characters	3.67	0.58	good
4	Consistency with the age of the learners	4.00	0.00	good
5	content accuracy	3.67	0.58	good
6	The content is fully consistent with the objectives.	3.67	0.58	good
7	The story progression is continuous.	4.00	0.00	good
8	The duration of the media is appropriate for the content.	4.00	1.00	good
9	can be used as a learning medium	3.00	1.00	moderate
10	able to apply content to everyday life	3.33	0.58	moderate
11	Expected knowledge from stop-motion media developments on the prevention of COVID-19	3.33	0.58	moderate
	Total average	3.61	0.55	good

Table 2: presents a summary of the performance evaluation levels in terms of content, visual and audio, usage, overall and quality of video media of stop-motion media development techniques about the prevention of COVID-19

No	Statement	Level of agreement		
		(\bar{x})	(S.D.)	transform
1	Content	4.67	0.38	very good
2	Picture and sound	4.00	0.91	good
3	Usage	4.67	0.38	very good
4	Overview	4.22	0.77	good
5	Quality of video media	4.33	0.58	good
	Total average	4.38	0.61	good

Table 3: Shows the overall performance evaluation level of stop-motion media development techniques. about the prevention of COVID-19

No	Statement	Level of agreement		
		(\bar{x})	(S.D.)	transform
1	Content	4.65	0.58	very good
2	Usage	4.59	0.64	very good
3	Quality of video media	4.56	0.67	very good
	Total average	4.60	0.63	very good

DISCUSSION

Conclusion of satisfaction assessment on stop-motion media development techniques about the prevention of COVID-19 From the sample group of 50 first year students at Chandrakasem Rajabhat University, the data were analyzed. The mean and standard deviation were obtained and the conclusion was the quality of the stop-motion media development technique. The prevention of COVID-19 The satisfaction assessment form is divided into 3 aspects as follows: 1) The content, with a mean of 4.65 and a standard deviation of 0.58. 2) Applications It had a mean of 4.59 and a standard deviation of 0.64. 3) Quality of video media It had a mean of 4.56 and a standard deviation of 0.67. Summary of media satisfaction assessment overview the mean is 4.60 and the standard deviation is 0.63, which is very good. These results shown in table 3. Our research media online watch on https://youtu.be/j50YYoN_XbI

In the trial of stop-motion media development techniques about the prevention of COVID-19, the sample consisted of 50 people, aged 16-21 years in using media and the satisfaction questionnaire was answered after using the media. It was analyzed and concluded that the content aspect had an average of 4.65 and the standard deviation was 0.58, followed by usage. with an average of 4.59 and a standard deviation of 0.64 and the quality of video media the mean is 4.56 and the standard deviation is 0.67. From the development of this research can learn the process of creating stop motion media effectively since the start of the process providing equipment on a limited budget. This includes finding software that enables quality stop-motion operation and for a planned timeframe. The character poses blank setting frame-by-frame shifting. There were trial and error and checking with storyboards correcting various errors such as lighting, movement, including finding sound effects within the media, etc. The resulting in experience and quality work that is unique and as a public relations medium for disseminating knowledge on the prevention of COVID-19.

CONCLUSIONS

The researcher developed a technique for developing stop motion media about the prevention of COVID-19. Our research using a software to develop such stop-motion media with sound, text or image data from a digital camera, then the captured image can be edited. The Stop-Motion Studio is used to create individual images in a way that creates a stop-motion effect. The results from this research, it will let you know the process of making a short film animation from the beginning of the thought process until the process of the finished work. If other media or a different working style media preparation process, it may not be as experiential as the process of creating stop motion, as it focuses on specific expertise and a multi-person process.

The summary results of the analysis were divided into three the parts: Part 1 was the expert storyboard quality assessment, part 2 was the media performance expert assessment and the part 3 was the feedback assessment, media satisfaction by users. All part was the good levels, our media developed will be able to reach the target audience online a variety of devices. Content that is easily accessible, interesting, has a character design that is unique to the target audience young generation through creation under limited processes. The viewers will learn more

about the spread of the COVID-19 and can be used to share knowledge with various people in the family, especially families with elderly people. A disseminate and recommend ways to prevent the spread of the epidemic to various groups thoroughly.

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