Motion Graphics of Covid-19 Epidemic Prevention Socialization

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Abstract. There are many ticketing employees who do not know about prevention to break the chain of the covid-19 outbreak, and the current information delivery is effective in informing ticketing employees. The implementation of the covid-19 socialization video aims to provide information that is packaged in an attractive manner following technological developments so that it is easily accepted by recipients of information. As for the background of this research because the introductory media or promotional media used are in the form of videos by making videos in the form of information on how to prevent them from breaking the chain of the Covid-19 outbreak. This motion graphic video is aimed at ticketing employees who don't know about the information on preventing the Covid-19 outbreak. The motion graphic on the video to socialize the prevention of the covid-19 outbreak was made using the Villamil development methodology. In this study, the product was then analyzed by an EPIC model to determine the effect and effectiveness of the covid-19 epidemic prevention socialization video. The results of the analysis using the EPIC Model parameters are: (1) Empathy dimension 3.92, (2) Persuasion 4.02, (3) Impact 4.07, (4) Communication 4.11, so the motion graphics on the promotional video CGV E-Card members are declared effective as a promotional medium. The communication dimension is a more dominant factor among other factors. The motion graphics that have been made produce MP4 format videos with a duration of ± 3. With a short duration and dense material, so it can be easily understood.

Keywords: motion graphic, covid-19 outbreak prevention socialization, Sars.

1 Introduction

Corona virus (CoV) is a large family of viruses that cause disease ranging from mild to severe symptoms. There are at least two types of coronavirus that are known to cause diseases that can cause severe symptoms, such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). Corona virus Disease (COVID-19) is a new type of virus that has never been previously identified in humans [6].

According to data from the Ministry of Health of the Republic of Indonesia on 12/04/2020, the number of Covid-19 cases was 4,241 people and continues to increase, with the number of cured 359 people with 373 deaths.

Sekupang domestic ferry crossing port is one of the ferry crossing ports managed by the Batam-BP Batam Concession Agency (formerly the Batam Authority). The facilities and service facilities available at this ferry terminal include parking for two-wheeled and four-wheeled motorized vehicles, a ticket booth, a waiting room with 200 seats and capable of accommodating 300 passengers, toilets, canteens and prayer rooms. The reason the researchers chose the port as a place to conduct research was because ticketing officers often made direct contact with foreigners at the Batam access point and outside Batam.

Prevention is being carried out because until now, there is no vaccine to prevent the corona virus or COVID-19. Therefore, the best preventive way is to avoid the factors that can cause ticketing officers to be infected with this virus, apply physical distancing, which is to keep a minimum distance of 1 meter from other people, and don't go outside the house unless there is an urgent need, use a mask. When doing activities in public places or crowds, routinely wash your hands with soap and water or hand sanitizers that contain at least 60% alcohol after doing activities outside the home or in public places.

Therefore, efforts to convey information to ticketing officers are used, because the communication media is chosen as one of the effective and interesting media, because it does not contain too much text, but a mixture of images, colors, sounds, and motion. At this stage, what distinguishes the videos we make from existing graphic videos is the image quality, the concept of image arrangement, speech style, language, and these values are one of the lifestyle targets for the COVID-19 prevention environment.

Communication media using motion graphics for Ticketing officers can minimize the spread of Covid 19, because there are no gatherings, crowds, shaking hands or direct contact [6]. Based on the description above, the theme of the report was raised with the title "Socialization of Covid-19 Virus Prevention". With the hope of being able to socialize or inform Ticketing officers will learn how to break the chain of the covid-19 virus using motion graphics, which can be useful in presenting information to ticketing officers.

2 Theoretical Basis

A. Literature review

Motion graphics a promotional media has been [3] entitled "Interactive Design of Wayang Beber as a Means of Introduction to Culture" using the development of multimedia technology, namely 5 W + 1H with Indonesian explanations, succeeded in making motion graphics a promotional medium. Meanwhile [4] in a study entitled "making communication media using motion graphics to socialize job families in Indonesian banks" producing

motion graphics is considered suitable as a socialization media. The same is the case with [5] in a study entitled "implementation of motion graphics in promotional videos for Cgv E-Card members" the method used is the EPIC model. The successful implementation of motion graphics as a promotional media for Cgv E-Card.

The main text should be written using Times New Roman, 10pt, fully justified. Italics can be used for emphasis and bold typeset should be avoided.

B. Covid-19

World Health Organization (2020) Corona virusis a collection of viruses that can infect the respiratory system. In most cases, this virus causes only minor respiratory infections, such as the flu. However, this virus can also cause severe respiratory infections, such as lung infections, Middle-East Respiratory Syndrome (MERS), and Severe Acute Respiratory Syndrome (SARS), and was first discovered in the city of Wuhan, China, at the end of December 2019. This virus spread quickly and has spread to other regions in China and to several countries, including Indonesia.

C. Sekupang domestic port

Sekupang domestic ferry crossing port is one of the ferry crossing ports managed by the Batam-BP Batam Concession Agency (formerly the Batam Authority). This port connects the island of Batam with several other islands in the Riau Islands including to several areas on the island of Sumatra. The facilities and service facilities available at this ferry terminal include parking for two-wheeled and four-wheeled motorized vehicles, a ticket booth, a waiting room with 200 seats and capable of accommodating 300 passengers, toilets, canteens and prayer rooms.

3 Research Methods
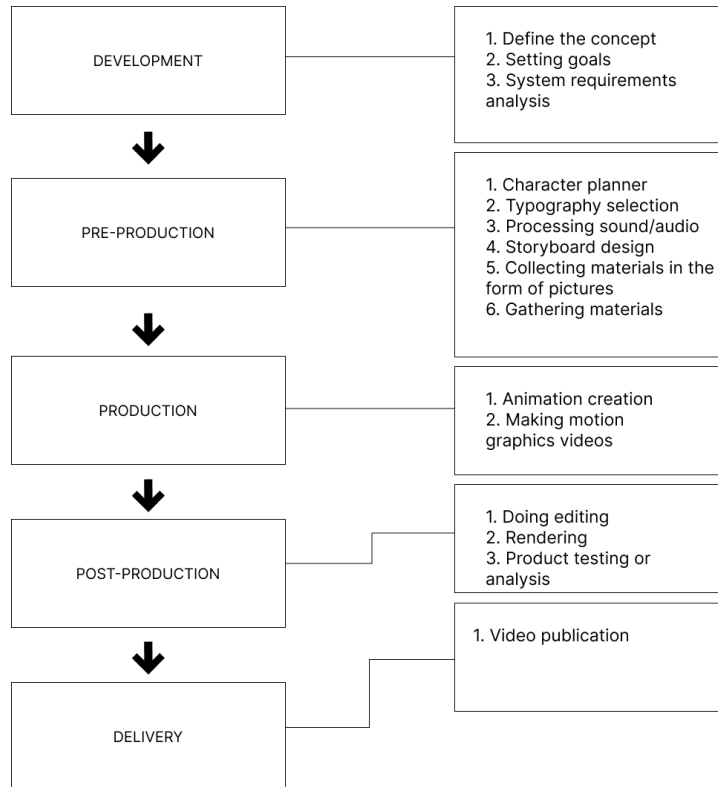
Fig. 1. Development of the Villamil method

The stages in the villamil method according to Villamil-Molina (1997):

- Development

At this stage the concept of multimedia applications that will be developed begins to be formed based on existing ideas, determining objectives and targets as well as certainty of financing guarantees.

- Pre-production

After the above stages have been passed, the next step is to employ specialists involved in the multimedia application process, crew both audio and video production, buy or rent the equipment needed, create scripts and storyboards and make a schedule for recording images (shooting). This of course also takes into account aspects of the legality of production such as copyright permits, places, work contracts, and so on.

- Production

  After the preproduction stage, at this stage, content research is carried out, application outline development, interface design, 2D or 3D graphic development, sound recording process, determining background music, digital video production, then made in one unit to form a complete product. ready to be tested.

- Post-production

  At this stage, the testing stage is carried out by taking into account the aspects of application design, text and narration, graphics, goals and objectives, sound, navigation, program code, delivery, time and financing as well as legal considerations. After going through this process, the product can be packed on CD / DVD (packaging) or publication to the internet as a website.

- Delivery

  This stage is the final stage in this method. At the delivery stage, you can use several methods, namely kiosk-based, group percentage, individual percentage, and via the internet.

A. Development

  In general, this motion graphic uses a 2D concept with the theme of socializing the prevention of the Covid-19 outbreak. This is planned to be made with a duration of ± 3 minutes according to the case or problem, namely the lack of information about the prevention of the Covid-19 outbreak for ticketing officers. The choice of concept in this case considers several aspects in general, such as choosing a color design that is identical to character design, communication media, target audience and publication strategy, how this message can convey to the audience. This is made with a design like in general, not only displaying good visuals but a message regarding the prevention of the Covid-19 outbreak forticketing officers.

  The target for this is specifically for ticketing officers. Target media aged 45 to 70 years, with the sexes of men and women, especially in the field of civil service. The communication strategy used is everyday language that is commonly used. In addition, it focuses on the communication elements commonly used by medical personnel in explaining the importance of health, because generally the main target audience is ticketing officers who need information about the importance of maintaining health

B. Pre-production

  At this stage, the socialization of the prevention of the Covid-19 outbreak will be designed using multimedia elements such as characters, typography, narrative voice, and storyboards. The display on this will be made as attractive as possible so that the audience can easily understand the contents of this.

- Character design

  The character design will be adjusted to the theme of this, namely using the port officer character, which is shown in table 1.

Table 1. Character

Petugas BP Batam	1. 43 years old 2. short haired boy 3. Dress neatly and clean 4. Slightly white skin 5. Wearing blue short-sleeved uniform and black pants 6. Wearing black shoes
Petugas Tiket Pelabuhan	1. 47 years old 2. short haired boy 3. Dress neatly and clean 4. Slightly white skin 5. Wearing white short-sleeved uniform and black pants 6. Wearing black shoes
Petugas Tiket Pelabuhan	1. 47 years old 2. short haired boy 3. Dress neatly and clean 4. Slightly white skin 5. Wearing whit long-sleeved uniform and black pants 6. Wearing black shoes

- Color

The use of colors in motion graphics are soft colors, infographic colors that have a high readability level so that information is easily visible. Using the theory of using colors proposed by Liz Blazer, limiting the color palette so that there are not too many colors in a video as in table 2

Table 2. Color table

No	Color	RGB Decimal Code	Information
1.	Navy blue	#000080	Calmness, trust.
2.	Blue	#00A2E9	Calm and calm.
3.	Yellow	#FFF000	Happiness and creativity, cheerful, optimistic.
4.	Red	#E62129	Passion, be brave.
5.	Green	#009B4C	Very much associated with peace, natural.
6.	Pink	#E40082	Calm and full of energy.

- Typography

Typographyor typography, which is the typeface used as the main means of building a message in graphic design. This socialization motion graphic uses three types of fonts, namely Impact, Arial and Calibri with the smallest size used, which is 20pt as shown in table 3.

The data analysis used in this research is the epic model analysis method. The effectiveness of a motion graphic for the prevention of the Covid-19 outbreak can be measured using the EPIC Model analysis developed by AC. Nielsen, which includes four critical dimensions, namely: empathy, persuasion, impact, and communication (Empathy, Persuasion, Impact, and Communication) in [1].

This research will be carried out at Sekupang Domestic Port which is located at Jl. RE. Sekupang Batam Domestic Port.

This study uses a non-probability sampling technique with purposive sampling technique. The criteria are used as research samples, namely:

1. Company employees at the ticketing section of Sekupang port.

2. Employees with a minimum age of 45 to 70 years.

Stages of data collection, a questionnaire is needed to determine the effect and effectiveness of the video socialization to prevent the covid-19 outbreak, the questionnaire will be created using Google Form media, listed in table VII below.

Table 3. Color table

Impact	**COVID-19 PREVENTION SOCIALIZATION**	It looks cleaner, clearer, modern and easy to read
Arial	SOCIALIZATION PREVENTION OF THE COVID-19 PLAGUE	It looks cleaner, clearer, modern and easy to read
Calibri	SOCIALIZATION PREVENTION OF THE COVID-19 PLAGUE	This font depicts something global, acceptable to all groups

- Audio

Audio / narrative voice that will be used is adjusted to the information and material to be conveyed. For narration voice using recorded voice. Meanwhile, backsound in motion graphics for the prevention of the Covid-19 outbreak refers more to instrumental music as a back sound. The audio format / narrative voice used is mp3 taken from the non-copyright youtube.com site. Can be seen in table 4.
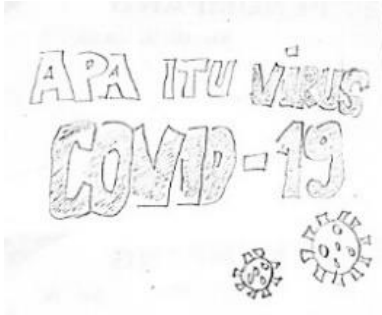
Table 4. Audio table

No	Information	Audio backsound
1	Name	Inspirational corporate background
2	Format	Mp3
3	Link	https://www.youtube.com/watch?v=KK2smasHg6w

- Storyboard

The following is a storyboard that will be used in making the socialization of the prevention of the Covid-19 outbreak. from table 3 to table 4.

Table 5. Storyboard table

Scene Name: WHAT IS THE COVID-19 VIRUS	Scene: 1	Duration: 7 seconds
		Audio: Sound Effects and narration
		Text: WHAT IS THE COVID-19 VIRUS

- Material gathering

The materials collected in this stage are pictures, audio in the form of sound fx, back sound and others as in table VI.

Table 6. Materials

	This image is used in the explanation section about the causes of the spread of the Covid-19 virus

- Analysis design

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Table 7. Materials

Concept	Variables	Indicator	Item
The effectiveness of motion graphics in socializing the prevention of the covid-19 outbreak.	*Empathy* (E)	(E1) Respondent's assessment of the video.	1. Video for prevention of the covid-19 outbreak is very good. 2. The video on socialization of the prevention of the covid-19 outbreak is interesting to watch.
		(E2) Response respondents to video display	1. Liked the video socialization prevention of the covid-19 outbreak. 2. Impressive video of the covid-19 outbreak prevention socialization.

	Persuasion (P)	(P1) Interest with positioned information.	1. Interested in the socialization of the Covid-19 outbreak. 2. Understand videos of covid-19 outbreak prevention socialization.
		(P2) The desire to do the positives in the video.	1. Desire to perform health protocols correctly. 2. The desire not to break protocol after watching the video.
	Impact (I)	(I1) Level of knowledge responsive to the information in the video.	1. Level of respondent's knowledge of the video socialization prevention of the covid-19 outbreak. 2. Tell others about health protocols.

		(I2) The level of advertising creativity.	1. Creativity of a covid-19 epidemic prevention socialization video compared to other covid-19 socialization videos. 2. The video concept for the prevention of the covid-19 outbreak is interesting.
	Communication (C)	(C1) Understanding the clarity of the socialization video.	1. The information in the covid-19 epidemic prevention socialization video is clearer than the other covid-19 outbreak prevention socialization videos. 2. The level of knowledge of respondents on the prevention of the covid-19 outbreak is high.

| | | (C2) Deep video socialization capabilities deliver excellence. | 1. Be able to convey the advantages of socialization videos for the prevention of the covid-19 outbreak |
| | | | 2. There are many benefits from the advantages of the covid-19 epidemic prevention socialization video. |

In the data simplification stage, the equation formula 1 is used for each of these dimensions, the data is analyzed using a weighted average score, that is, each respondent's answer is given a weight.

$$x = \frac{\sum fi.wi}{fi} \tag{1}$$

Information:
X = Average weight, fi = Frequency, wi = Weight.

Lanthe next step is to use the scale range. Assessment to determine the position of the respondent's response using the score for each variable using the equation formula 2.

$$Rs = \frac{R}{M} \tag{2}$$

Information:
R = Largest weight - smallest weight, the number of weight categories.

ReThe scale (Rs) is then used into the decision scale range as a decision making material from the results of the EPIC Model analysis. This can be seen in Tabel 7.

Table 8. Epic scale range models

Criteria	Scalable range
Very ineffective	1.00 - 1.80
Ineffective	1.81 - 2.60
Effective enough	2.61 - 3.40
Effective	3.41 - 4.20
Very effective	4.21 - 5.00

The final step is to determine the EPIC rate value with the following formula [1].

$$Epic\ rate = \frac{XEmpaty + XPersuasion + XImpact + XCommunication}{N} \tag{2}$$

The step in presenting this data is to make an epic model diagram to make comparisons between one dimension and another as a whole can be seen in Figure 2 below.
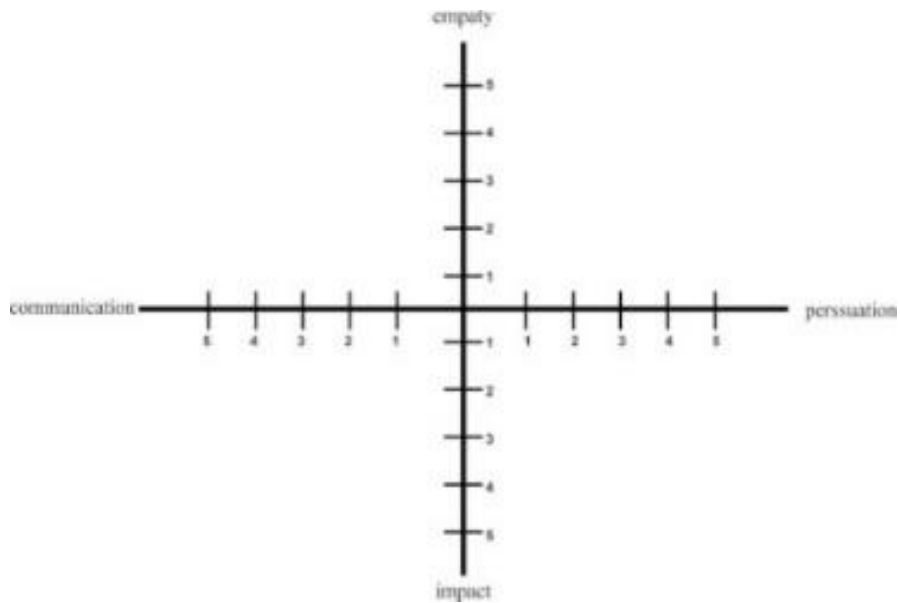
Fig. 2. Measuring the efectiveness of the viceo

C.   Production

The activities carried out at this stage are processing all the materials or materials that have been collected in the previous stages. The motion graphic processing process is depicted in Figure 3.
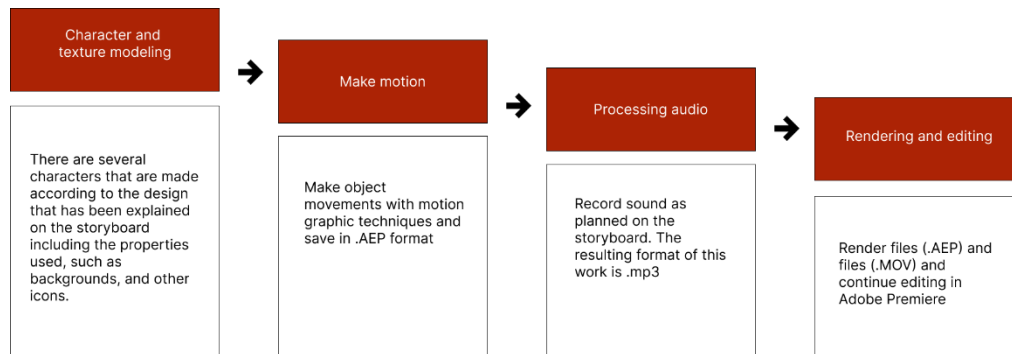
Fig. 3. Production stages

4 Research Methods

A.   *Production*

1.   Production result

The following is the production result of the motion graphic on the prevention of the Covid-19 outbreak as shown in Figure 4 and Figure 5.

Fig. 4. Dsiplay of production result

2.   Research Result

This research is the final testing phase carried out by researchers on products that have been made before publication. This stage has been carried out by the researcher by giving

several questionnaires to 10 respondents at the Sekupang port, which are then processed by calculations using the EPIC model method so that the respondent's responses about motion graphics can be seen as shown in table 9.

Table 9. Epic scale range models

No	Indicator	Code	SE	E	CE	TE	STE
1	*Empathy* (Empathy)	E1	6	24	0	0	0
		E2	10	20	0	0	0
2	*Persuasion* (persuasion)	P1	21	9	0	0	0
		P2	20	10	0	0	0
3	*Impact* (impact)	I1	22	8	0	0	0
		I2	25	5	0	0	0
		I3	18	12	0	0	0
4	Communication (communication)	C1	21	9	0	0	0
		C2	18	12	0	0	0
		C3	23	7	0	0	0

The following is a table of the results of the questionnaire that has been processed, which are described in table 10.

Table 10. Number of Statements of respondents

No	Indicator	Code	Score	Average
1	*Empathy* (Empathy)	E1	4,2	4.26
		E2	4,3	
2	*Persuasion* (persuasion)	P1	4,7	4.68
		P2	4,7	
3	*Impact* (impact)	I1	4,7	4.72
		I2	4,8	
		I3	4,6	
4	Communication (communication)	C1	4,7	4.68
		C2	4,6	
		C3	4,8	

After getting the average value of each indicator then calculates the EPIC rate as follows

$$Epic\ rate = \frac{4,26 + 4,68 + 4,72 + 4,68}{4} = 4,59$$

The results of the calculation, the graph of the results of measuring the effectiveness of the motion graphic of the socialization of the prevention of the Covid-19 outbreak with the EPIC model approach (empathy, persuasion, impact, communication) as a whole can be seen in Figure 5.
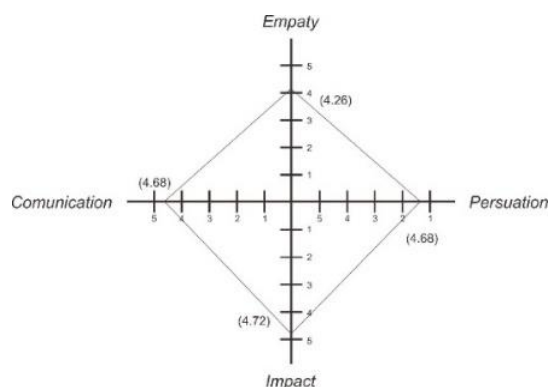
Fig. 5. Stages of measuring the effectiveness of the video from four dimensions

This study resulted that the motion graphic video of the socialization of the prevention of the Covid-19 outbreak was considered very effective with an average epic rate calculation of 4.59. As for in detail the effectiveness of the sausage, it can be concluded according to each dimension as follows:

1. The empathy dimension shows that the effectiveness of the socialization motion graphics video is considered very effective by getting an average score of 4.26, the empathy dimension can be said to involve feelings, while cognition involves thinking. Variations in affective responses can be in the form of positive, negative, pleasant, or unpleasant assessments of the socialization that has been made.

2. The persuasion dimension shows that the effectiveness of video motion graphics in socializing the prevention of the Covid-19 outbreak is considered very effective with an average score of 4.68. The effectiveness of the motion in the persuasion of media to socialize the prevention of the Covid-19 outbreak has increased the interest of respondents to see and understand information about the contents of the video.

3. The impact dimension shows that the effectiveness of the motion graphic video socialization of the prevention of the Covid-19 outbreak is considered very effective by getting an average score of 4.72. The socialization motion graphic video has been able to show a difference or a different appearance from the existing socialization and is able to involve respondents to understand the information shown in a socialization that has been made.

4. among other dimensions, the impact dimension is the most domain compared to the other dimensions.

5. The communication dimension shows that the effectiveness of the motion graphic video socialization of the prevention of the Covid-19 outbreak is considered very effective by getting an average score of 4.68. In the communication dimension, it is stated that where the delivery process is carried out with the media, and gets a response to the message conveyed that the motion graphic video socialization of the prevention of the Covid-19 outbreak is able to convey the contents of the message the meaning of the video being presented.

B. Distribution

The motion graphic of the socialization of the prevention of the covid-19 outbreak will be uploaded to social media and given to the Batam State Polytechnic as the author's final project.

5 Conclusion

The results of the research that have been done can be concluded as follows:

1. The making of motion graphics videos for the socialization of the prevention of the Covid-19 outbreak, a case study of the Sekupang port applying the Villamil Molina method with the results of a 3-minute video MP4 format with a duration of 3 minutes was successfully made, equipped with animation, text, sound effects and narration as information.

2. Analyze the effectiveness of the video motion graphic of the socialization of the prevention of the Covid-19 outbreak on the understanding of the Sekupang domestic port ticket employee, using the EPIC model method.

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