



Media Presentation Design of Railroad Crossing Discipline for Teenagers 15-18 Years Old by Indonesian Edan Sepur Community in Bandung

Meti Agni Rizkiani^{1*}, Acep Suparman², Sophia Purbasari³, Oky Mauludya⁴, Citra Kemala Putri⁵,

^{1,2,3,4} *Communication Studies Design, Faculty of Communication and Design, Indonesian University of Informatics and Business, Bandung, Indonesia*

**Corresponding author email: metiagni@unibi.ac.id*

Abstract

A railroad crossing is an intersection where a railway line crosses a road that can become an accident-prone point. The high number of accidents on a railroad crossing is due to the low level of society's discipline in traffic. One of the communities who cares about this phenomenon is Edan Sepur Indonesia Community. There were 16.111 violations on 5 railroad crossings in Bandung for the last 6 months of the Crossing Discipline Event 2022. The purpose of this design is to make an interesting media presentation related to railroad crossing discipline that will be socialized to the teenagers aged 15-18 years old in Bandung. The method used on this design is a qualitative method by doing observation, interview and questionnaire. This media presentation design is aimed to provide knowledge and early education concerning the awareness of railroad crossing discipline to prevent accidents.

Keywords: Railroad Crossing Discipline, Railway, Media Presentation

1. Introduction

A level crossing is an intersection between a road and a railway track on the same place. Level crossings are partially equipped with crossbars. The large number of level crossings, especially in urban areas, increasing the vehicles community crossing the railroad. Consequently the level crossings become an accidents prone points (Leborg, 2006). The high number of accidents at railroad crossings is due to the low level of public discipline in traffic. Stated from dephub.go.id, in consequence of an accident at a level crossing KAI suffered disadvantage in the form locomotive damage. In detail, in 2020 there were 208 damage to locomotives due to the accident by motorbikes, cars and trucks. In 2021 the number increase from 2.4 percent to 213 damages. In 2022 until early March there were 36 damages that caused train departure delayed. Delays occur because they have to sterilize the lane, inspection the facilities and replace it. The increase of accidents at level crossings indicates that these phenomenon are quite detrimental. Therefore, public discipline in driving which is still low must be improved, so the transportation accidents especially on railroads can be reduced (Brueckner, 2018).

The phenomenon that occurs nowadays people often ignore their safety which resulting an accidents. According to kompas.com, a Toyota Swift car with 4 passangers was hit by a train in Leuwidahu, Tasikmalaya City on Sunday, November 13rd, 2022. This incident was caused because there was no crossbar at the level crossing so when the car and train was passing at the same time, the Serayu train from Bandung to Purwokerto unavoidable hit the car and 3 people were declared dead. The latest news regarding a crossing accident caused by breaking through the barrier occurred at the 169 Ibrahim Adjie Kiaracandong level crossing. Detik.com stated that a motorist was killed by a train after breaking through the barrier on Thursday, 24th November 2022. Therefore the public needs to be educated about the importance of the discipline of railroad crossings. One of the communities that cares about this phenomenon is the Edan Sepur Indonesia Community (Diaz, 2003).

The Indonesian Edan Sepur Community or the Indonesian Railfans Community, abbreviated as IESC/IRC, is a forum for train lovers in Indonesia whether they come from individuals or other groups, organizations or communities. The Indonesian Edan Sepur Community was founded on July 5th, 2009 in Jatinegara. The activities of Edan Sepur Indonesia Community were originally engaged only in the railroad environment. Nevertheless, since 2014 this community has routinely educational activities entitled Road Discipline. The Edan Sepur Team for Bandung area

noted that there were 16,111 violations at 5 level crossings in Bandung during the last 6 months doing Crossing Discipline activities in 2022.

The Socialization of Road Discipline done by the Indonesian Edan Sepur Community is quite effective to make the public more disciplined and not violated the rule. This requires the media to convey the traffic discipline education for socialization activities of the Indonesian Edan Sepur Community.

The Edan Sepur Community also held a socialization designs several times to educate students at schools and government agencies. Even though level crossing violators do not occur in schools, but schools education staff is still have the responsibility to create a traffic disciplined community, especially at railroad crossings. Giving early education discipline and instilling awareness to apply discipline culture continuously, this preventive action is the first step to reducing undisciplined habits at the crossing.

Concerning this problems, the educational media presentation are needed to attract the attention of teenagers aged 15-18 years old to have the awareness of railroad traffic discipline, especially at crossings. The design of this educational media is a trigger for Bandung city youth to raise awareness in terms of discipline. Recalling and campaigning for design activities Road Discipline owned by the Edan Sepur Indonesia Community to be well known by the public and moves to create a sense of awareness of discipline culture, especially at railroad crossings. The design of this educational media is relevant to the Indonesian Edan Sepur Community which is quite active in the socialization of crossing discipline.

2. Literature Review

2.1 Media Presentation

Faraday (1997) stated that media presentation is a message or material to be conveyed that is setted in a computer design and presented through a presentation device (projector). The messages or materials can be in the form of text, images, animations and videos combined in one set.

2.2 Illustration

The definition of illustration according to Gastil (1994), illustration is related to fine art which is a depiction through visual elements to further clarify, explain, or beautify a text. To make the readers experienced directly through their own eyes, the nature of motion and also the impression of the story presented. According to Fariz (2009: 14), Illustration is an expectation of the impossibility as same as the wishful thinking which is virtual. The illustration work comes in various diversity.

2.3 Mascot

According to Simpson (1986), the mascot is the personification of the brand in the form of certain characters with the characteristics that represent the brand. The mascot can be a communication tool and differentiation which can be an effective media promotion in the context of "awareness" for the short term, and "loyalty" for the long term. An effective mascot is a mascot that is able to describe a philosophy, convey an image of vision and mission, and is able to become part of the public itself.

2.3 Railway Crossings

According to the Regulation of the Minister of Transportation of the Republic of Indonesia Number PM 94 of 2018 concerning Improving the Safety of Level Crossings Between Railroads and Roads in article 1 it is stated that level crossings are intersections between roads and railway. The important thing at level crossings is the high number of traffic accidents between vehicles and trains, especially at crossings without a crossbar (Borsos, 2016).

3. Methods

3.1 Research methods

The method used in this design is a qualitative research method. According to Moleong (2005: 6), qualitative research is research that intends to understand the phenomenon of what is experienced by research subjects such as behavior, perceptions, motivations, actions, etc. in a holistic manner, and by describing words and language, in a special natural context and by using various natural methods. Qualitative research methods use analysis techniques by

examining each problems in the case. The purpose of qualitative methods is not generalization but a deep understanding of a problem. The purpose of qualitative research is to explain the phenomena in a serious way that occur in society by collecting and compliting data. In this study, the completeness of the data studied is very important.

3.2 Data collection technique

The primary data collection technique is done by conducting interviews, observing, and distributing questionnaires. While the secondary data collection technique is done by collecting data from various available sources such as literature studies (literature books and official documents), media (print and electronic), documentation (photos, drawings, films, and recordings) and various sources, officially on the internet.

4 Results and Discussion

Presentation slide material is the main media in this design. This design is aimed to convey material regarding railroad crossing discipline to teenagers aged 15-18 years old properly and effectively during socialization. In this design, educational media presentation slides will used at socialization events to schools. This event is held once a year in commemoration of Indonesian Railways Day. This design communication strategy uses AISAS theory, according to Sugiyama and Andree (2011: 79) AISAS is a formula designed to approach effectively the target audience by looking at the behavior changes that occur, especially related to the background of advances internet technology.

The message strategy in this design is used as approaching trick to youth aged 15-18 years old in Bandung as the target audience. The message strategy approach used as the attitude forming in the design of this educational media to conveying messages by means of cognitive, affective and conative approaches. This presentation slide material is used as the main media in this design. The graphic style created will be different from the presentation material previously which is considered less attractive to teenagers. The graphic style is adapted to the interests of teenagers aged 15-18 years old starting from the use of minimalist colors, consistent layout, modern visual flat design, language style which is quite light and attractive for teenagers.

The mascot concept in this design was made to make teenagers as an audience feel comfortable and feel like interacted with their peers. This mascot is made by representing male and female characters. The male mascot is named Dadan, while the female mascot is named Puri. Dadan and Puri are taken from the name "Edan Sepur" which is the name of the community that held socialization of this crossing discipline. The following are the mascots of Dadan and Puri in the Figure 1 and Figure 2:

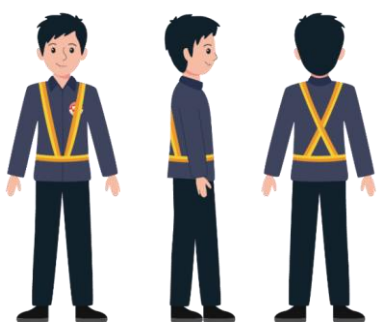


Figure 1: Mascot of Dadan



Figure 2: Mascot of Puri

This illustrative asset of the Indonesian Sepur Edan Community materi presentation regarding Road Discipline for youth aged 15-18 years old in Bandung is used as the visuals display to support the content of the material presented. The following is a detail of each illustrative asset contained in this design, there are the character of the offender, Stop Signs, Left Right Signs, Crossing Signs, Locomotives and Train Carriage (in Figure 3 until Figure 7):

**Figure 3:** Character of the Offender**Figure 4:** Stop Sign**Figure 5:** Left Right Signs**Figure 6:** Crossing Sign**Figure 7:** Locomotives and Train Carriage

This design consists of several stages as part of the process to produce an attractive and useful design. The following are the stages of designing presentation slide media of the Edan Sepur Indonesian Community regarding railroad crossing discipline for teenagers aged 15-18 years old in Bandung.

1. Pre Production

a. Content

In detail the content section can be seen in Table 1.

Table 1: Table of Content

Page	Discussion Materi
1	Cover
2	Introduction of the mascot
3	Introduction of Indonesia Edan Sepur Community
4-5	Contents
6-10	Phenomenon
11-12	Violation Data
13-14	Constitution of Law
15-18	Violation Reason
19-21	Violation Penalty
22-25	Violation Consequences
26-29	Railway Crossing Tips
30-31	Design Activity of Road Discipline
32-35	Mandate
36	Mascot Response

37	Question and Answer Session
38-41	<i>Call To Action</i> of Discipline
42	Closing

b. References

This design used the images reference as the reference in making works. This design also looking for references to works with a flat design graphic style to observe, imitate and modify according to the needs of the initial concept and the tastes of the target audience as the Figure 8.



Figure 8: Images Reference

c. Sketch

After getting an idea of how the work will be made, starting from the layout of the visual objects to the character gestures, the writer started making manual sketches using pencil and paper. This sketch is the beginning of making a graphic display in this design as the Figure 9.



Figure 9: Presentation Slide Sketch

2. Production

a. Tracing dan Layouting

After completing the manual sketch on paper, the sketch is scanned to be a digital format. Then, the sketch image in digital format is entered into the Adobe Illustrator design software for the tracing stage according to the layout that has been designed. Adobe Illustrator is also used for the creation of vector-based illustration assets as the Figure 10.

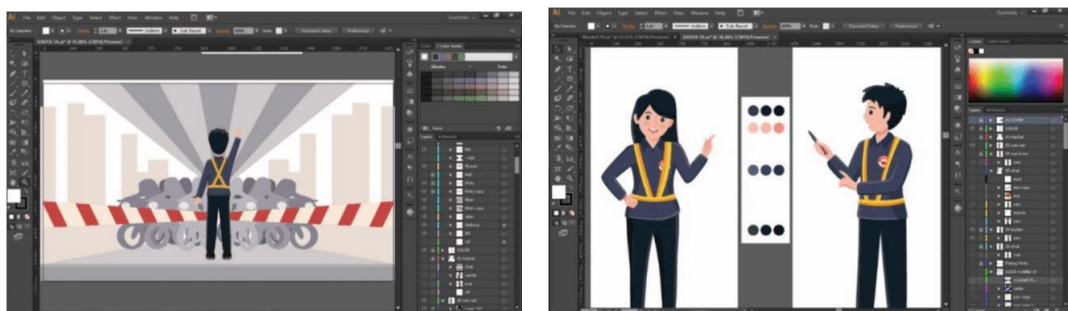


Figure 10: Tracing dan Layouting Process

3. Post Production

a. Animation PPT

This stage is to completing the process of illustration asset creation for presentation slides. Then move all the assets to be included in the power point software, after that adds a simple animation to move some objects to make the visuals presented look more attractive as the Figure 11.

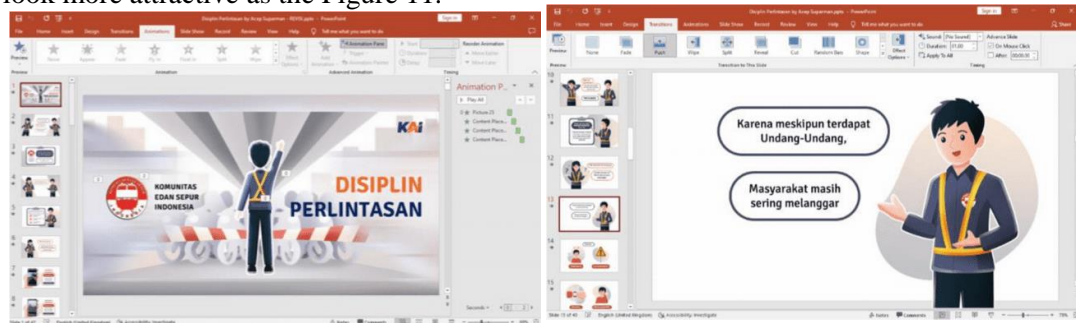


Figure 11: Animation PPT



Figure 12: Several presentation slides (Design Results)

5. Conclusion

The presentation media used by the Edan Sepur Indonesia Community to socialize the discipline of railroad crossings is still too formal and rigid for all ages. Starting from the visual, the layout, the text, the color selection and the material are un-effective with the tastes of teenagers. Therefore, this design makes media presentation slides more effective and attractive for teenagers. Both in terms of visuals, layout, color selection, language style and illustrations that refer to research data, reference searches, interviews, observations and questionnaires. In this design, the graphic style is adapted to the interests of teenagers aged 15-18 years old, starting from the use of a minimalistic flat design so that it is easy to read, a consistent layout to make teenagers comfortable seeing the visuals and a language style that is light enough for the young audience understand easily about what was informed. The result of this design is the PowerPoint presentation slides, where each message is delivered using a cognitive, affective and conative approach. This media presentation discusses the discipline of railroad crossings as an effort to prevent accidents at crossings by increasing the awareness of youth discipline. The chosen of teenagers aged of 15-18 years old emphasizing that awareness of discipline starts from a young age and making them as a stakeholder to be a pioneer of safety in railroad crossing discipline.

References

- Borsos, A., Gabor, M., & Koren, C. (2016). Safety ranking of railway crossings in Hungary. *Transportation research procedia*, 14, 2111-2120.
- Brueckner, M., Spencer, R., & Paull, M. (2018). Disciplining the undisciplined. *Perspectives from business, society and corporate social responsibility and sustainability*. Cham, Switzerland: Springer International Publishing.
- Diaz, H. P., Jaffe, J. M., & Stirling, R. M. (Eds.). (2003). *Farm communities at the crossroads: challenge and resistance* (Vol. 43). University of Regina Press.
- Faraday, P., & Sutcliffe, A. (1997, March). Designing effective multimedia presentations. In *Proceedings of the ACM SIGCHI Conference on Human factors in computing systems* (pp. 272-278).
- Gastil, J. (1994). A definition and illustration of democratic leadership. *Human relations*, 47(8), 953-975.
- Leborg, C. (2006). *Visual Grammar: A Design Handbook (Visual Design Book for Designers, Book on Visual Communication)*. Princeton Architectural Press.
- Simpson, H. (1986). The MASCOT method. *Software Engineering Journal*, 1(3), 103-120.