Conference Paper

Pictogram Design of Objects in The University of National Development "Veteran" of East Java Environment

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Abstract

Universitas Pembangunan Nasional "Veteran" Jawa Timur (University of National Development "Veteran" of East Java, subsequently referred to as UPN "Veteran" of East Java in this paper) has several signature objects within the perimeter of the university's environment, such as physical objects (tools, things, places) and non-physical objects (action, activity, information). Those signature objects can be visualized into symbol or pictogram that signify the ideas and simplify the physical shape of the real object. Pictograms can serves as a visual language to communicate a message or information that will be easily understood by the audience. One optimization form for the use of pictogram is as the signage in the implementation of visual communication media in the UPN "Veteran" environment of East Java. The method used in this design is a qualitative method by finding relevant literature, collecting primary and secondary data, analyzing the data using the TOWS Matrix table to determine the Unique Selling Proposition, and analyzing the insight of the target audience to develop creative solutions. From the results of the TOWS Matrix analysis, a Unique Selling Proposition was obtained in the form of grouping pictograms into several groups of objects, namely Vision and Mission of UPN "Veterans" of East Java, UPN "Veterans" of East Java's Objectives and Strategies, State Defense Values, Faculties and Study Programs in the UPN "Veteran" of East Java, Student Activity Unit in the UPN" Veteran "East Java environment, and Facilities in the UPN "Veteran" of East Java's environment. While from the results of the target audience's insights analysis, the creative solutions was found through the usage of graphic elements in pictogram designs, namely elements of color and color taken from the distinctive characteristics of UPN "Veteran" East Java.

Keywords: pictogram, sign system, symbol, UPN "Veteran" of East Java

INTRODUCTION

University of National Development "Veteran" East Java (UPN "Veteran" Jatim) has several signature objects in the form of physical objects (tools, things, places) and non-physical objects (action, activities, information) that are within the perimeter of UPN "Veteran" Jatim environment.

These signature objects can be visualized into a symbol or visual language to convey a message or information. This visual symbol or language is known as a pictogram or pictograph. Pictograms are images that represent ideas and are conveyed through the visualization of the original object's physical form or shape. Some traffic signs use the pictogram as the "language".

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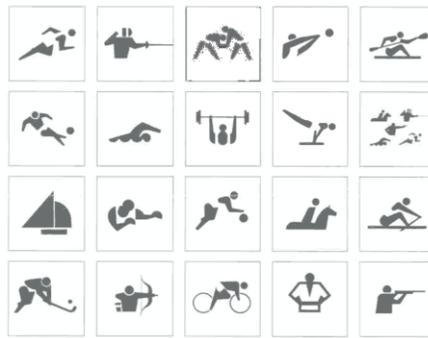
Figure 1. Pictogram 1964 Tokyo Olympic

Pictograms were first officially used at the 1948 England Olympics and began to be routinely used since the 1964 Japan Olympics. Back then the pictograms were used as a communication tool to describe each of the sports contest being held. Pictograms are easy to understand, because their forms aims to not just symbolizes, but also to simplify. Pictograms are designed in such a way that the audience will be able to understand them correctly.

Figure 2. Pictogram for heavy-lifting sports is the simplification of the real object's imagery

Pictograms are made using a stylization technique that is changing an object imagery from the original form into a new form or shape with the identity of the object still recognizable. Stylization techniques can also be referred to as form-simplification techniques.
The stages in making stylized pictograms are as follows:
Search for and find a specific part or form on an object.
Simplify the form without leaving the distinctive shape of the object.

Figure 3. Stylization technique that produce var various pictogram design style

Stylization technique of a pictogram can also make use of the foreground—background or positive—negative image principle.
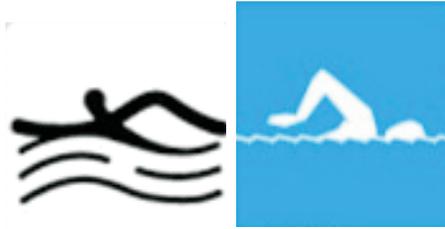
Figure 4. Pictograms making use of the foreground – background or positive – negative image principle

The usage optimization of a pictogram is as a communication tool that can be implemented on various visual communication media, one of which is signage. Pictograms on signage can help to convey information more clearly because it is accompanied by simple images and represent information.

Figure 5. Pictogram implemented on the signage of beach volleyball sports location

Figure 6. Pictogram implemented on signages

METHODS

The design method used in this study is the qualitative method. Qualitative methods are used to design pictograms of objects in the UPN "Veteran" of East Java's environment.

Qualitative methods are more flexible and can be change according to the field conditions. Data obtained in qualitative methods are not data in the form of numbers, but in the form of text, documents, images, photographs,

artifacts, or other objects found in the field during the research (Sarwono, 2007: 95).

The steps used to compile the design are as follows:
1. Search for literature or references.
2. Gathering primary and secondary data.
3. Analyzing data using TOWS tables (Threat, Opportunities, Weakness, Strength) matrix to determine the Unique Selling Proposition.
4. Analyze the target audience's insights by using the why test method to develop creative solutions.

Data Collecting Method

The data collection method used in this design is qualitative data collection, in the form of primary and secondary data. Primary data is obtained through observation and interviews, while secondary data is obtained through literature and documented resources.

1. Primary Data

Observation

Observation is used to directly observe the objects to be studied. Observations were made at the location of UPN "Veteran" of East Java to obtain data on physical and non-physical conditions of objects that exist in the UPN "Veteran" of East Java's surroundings.

Interview

Interviews are used to obtain information directly from the interviewee, that is the parties related to the study's data searching process.

The first interview was carried out to the UPN "Veteran" of East Java's Public Relations Division (Humas) which became the interviewee in determining the needs of pictogram in the UPN "Veteran" of East Java environment. The second interview was conducted to representatives of each faculty in the UPN "Veteran" of East Java's environment to determine the unique characteristics of each faculty.

2. Secondary Data

Literature

The reference is used to search literature data related to pictogram design theories, important aspects of the pictogram, and graphic elements used by pictograms.

Documentation

Documentation is being used to documenting the data related to the objects' pictogram design in the environment of UPN "Veteran" of East Java.

Data Analysis Method

Data analysis is a process of arranging, structuring, and interpreting irregular data (Daymon, 2002:367). Data analysis used in this study is the qualitative data analysis. Analysis of qualitative data is a systematic process that continues to take place simultaneously with data collection process.

1. TOWS Matrix Analysis

The data observed at the location of UPN "Veteran" of East Java and the interview results with interviewees were analyzed using the TOWS table (Threat, Opportunities, Weakness, Strength) matrix. TOWS matrix analysis is used to determine the Unique Selling Proposition by finding the most prominent similarities between strengths and opportunities.

2. Analysis of Consumer Insight

The consumer insight analysis conducted to the data obtained from interviews with representatives using the why test method. The results of these interviews have various insights. The use of unique insights is a creative solution that offer fresh ideas.

RESULT AND DISCUSSION

Pictogram

From the results of the TOWS matrix analysis it can be concluded that the Unique Selling Proposition possessed by UPN "Veteran" East Java is the implementation of the characteristics of the State Defense in campus academic and non-academic activities. This is the basis for grouping pictogram objects that are needed by UPN "Veteran" East Java and in accordance with the characteristic superiority of the State Defense of the UPN "Veteran" East Java, including the following:

1. Vision and Mission of UPN "Veteran" East Java.
2. Target and Strategy of UPN "Veteran" East Java.
3. State Defense Values.
4. Faculties and Study Programs in the UPN "Veteran" East Java Environment.
5. Student Activity Unit in the UPN "Veteran" Environment in East Java.
6. Facilities in the UPN "Veteran" East Java Environment

Pictograms Visualization

From the results of consumer insight analysis with the why test method, it was concluded that the audience wanted a pictogram design that was taken from the distinctive characteristics of UPN "Veteran" East Java. This raises the use of graphic elements pictogram in the form of elements of color and elements that are in accordance with the typical characteristics of UPN "Veteran" East Java.

The form element used in the pictogram design is a simplification of the shape of a bamboo object that is implemented as a supergraphic pictogram.
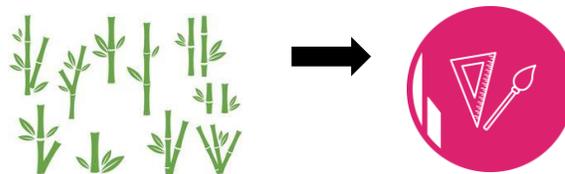

Figure 7. Simplification of the bamboo object's shape that is implemented as a pictogram's supergraphic

The color element is taken from the distinctive characteristics of each objects' group or pictogram objects.
1. Vision and Mission of UPN "Veteran" East Java
The design of the pictogram of the vision and mission of UPN "Veteran" East Java is as follows:

Figure 8. A pictogram design that symbolizes the vision and mission of UPN "Veteran" of East Java

The shape element is taken from the shape simplification of the symbol representing the points of vision and mission of UPN "Veteran" of East Java. The red and white elements are taken from the signature color of "Bela Negara", which are the colors of the Indonesian flag.

2.The goals and strategies of UPN "Veteran" East Java

UPN "Veteran" of East Java have set the goals and strategies in various fields, namely the teaching and education field, research and community service field, organizational filed, the financial field sector, human resources field, facilities and infrastructure field, and the cooperation field.

Pictogram design of the UPN "Veteran" of East Java targets and strategies are as follows:

Figure 9. The pictogram design that symbolizes the goals and strategies of UPN "Veteran" of East Java

The shape element is taken from the shape simplification of the symbol representing the points of UPN "Veteran" of East Java's target and strategies. The black color element is taken from the signature colors of State Defense, which signify the ideas of upholding the value of unity.

3.   State Defense Values

Pictogram design of the State Defense values of the UPN "Veteran" of East Java are as follow

Figure 10. The pictogram design that symbolizes the values of the State Defense

The shape element is taken from the shape simplification of the symbol that represents the points of UPN "Veteran" of East Java's State Defense values. The red and white color elements are taken from the signature colors of State Defense, namely the colors of the Indonesian flag.

4.   Faculties and Study Programs in the UPN "Veteran" of East Java's Environment

The pictogram design for the Faculties and Study Programs in the UPN "Veteran" of East Java environment are as follows:

Figure 11. The pictogram design that symbolizes the Faculties in the UPN "Veteran" Environment in Ea

Figure 12. The pictogram design that symbolizes the Study Programs in the UPN "Veteran" Environment in East Java

The shape element is taken from the simplification of the form of the symbol representing the points of the Faculties and Study Programs in the UPN "Veteran" of East Java Environment. The color elements are taken from each Faculties and Study Program's signature color in the UPN "Veteran" of East Java Environment.

5.   Student Activity Unit in the UPN "Veteran" Environment in East Java

The Student Activity Unit (UKM) in the UPN "Veteran" of East Java environment includes Martial Arts, Photography, Karawitan, Religion, Cooperative Economic, Mountaineering, Marching Band, Student Military Training, Music, Sports, Choir, Student Press, Scout, Dance, and Theater.

The pictogram design of the Student Activity Unit in the UPN "Veteran" East Java environment is as follows:

Figure 13. The design of the pictogram that symbolizes the Student Activity Unit in the UPN "Veteran" of East Java

The form element is taken from the simplification of the form of the symbol representing the points of the Student Activity Unit in the UPN "Veteran" of East Java's environment. The black color element is taken from the signature colors of State Defense, which signify the ideas of upholding the value of unity.

6.   Facilities in the UPN "Veteran" of East Java's Environment

Facilities that are in the UPN "Veteran" of East Java includes BEM Room, Lake, Swimming Pool, Alumni Monument Park, Climbing, Flying Fox, Bela Negara Monument Park, Giri Loka Building, ATM, Girls Dormitory, Appropriate Technology Building, Minimarket, Green House, Canteen, Mosque, Library, Car Parking, Motorcycle Parking Lot, Tennis Court, Final Waste Disposal Site.

Pictogram design of facilities in the UPN "Veteran" of East Java' is as follows:

Figure 14. The design of the pictogram that symbolizes the Facilities in the UPN "Veteran" of East Java

The shape element is taken from the simplification of the form of the symbol representing the points of the facilities in the UPN "Veteran" of East Java. The green and yellow color elements are taken from the colors that often signify the military aspect.

A. Implementation of Pictograms

Optimizing the use of pictogram design with its implementation on the signage as the choosen platform of visual communication media. The following are the simulation of pictogram implementation on some signage required in the UPN "Veteran" of East Java's environment.

1. Identification Sign

Figure 15. Simulation of pictogram design implementation for car parking facilities and motorbike parking's identification sign

Figure 16. Simulation of pictogram design implementation for the study programs identification sign

2. Direction Sign

Figure 17. Simulation of pictogram design implementation for the faculty direction sign

3. Orientation Sign

Figure 18. Simulation of pictogram design

CONCLUSION

UPN "Veteran" of East Java has several unique objects in the form of physical objects and non-physical objects such as facilities, Study Programs and Faculties, and Student Activity Units in the UPN "Veteran" of East Java's environment.

These signature objects can be visualized into a symbol or visual language which often being referred to as a pictogram. The optimization form for the use of this pictogram is a communication tool that can be implemented on various visual communication media such as signage.

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REFERENCES

Consuelo. (1993). *Metodologi Penelitian*. Jakarta: Universitas Indonesia.

Daymon, C., Holloway, I. (2002). *Qualitative Research Methods in Public Relations & Marketing Communications*. Translation: Cahya Wiratama. Bandung: Mizan Media Utama.

Hamidi. (2007). *Metode Penelitian dan Teori Komunikasi*. Malang: Universitas Muhammadiyah Malang.

Kasilo, D. (2002). *Komunikasi Cinta: Menembus G-Spot Konsumen Indonesia*. Jakarta: PT. Gramedia.

Lankow, J. (2014). *Infografis Kecerdasan Cara Bercerita Visual*. Jakarta: Kompas Gramedia.

Maulana, A.E. (2009). *Consumer Insight via Enthnography*. Jakarta: Erlangga.

Nawawi. (1998). *Metode Penelitian Bidang Sosial*. Yogyakarta: Universitas Gajah Mada.

Obed, Wicandra. (2006). *Peran Infografis Pada Media Masa Cetak*. Surabaya: Infografis Universitas Kristen Petra, Fakultas Seni dan Desain.

Rustan, S. (2009). *LAYOUT dasar & penerapannya*. Jakarta: Gramedia Pustaka Utama.

Sarantakos, S. (1998). *Social Research*. Australia: Macmillan Education Australia PTY LTD.

Sarwono, J., Lubis, H. (2007). *Metode Riset Untuk Desain Komunikasi Visual*. Yogyakarta: Andi.

Sihombing, D. (2001). *Tipografi Dalam Desain Grafis*. Jakarta: Gramedia Pustaka Utama.

Susanto, M. (2002). *Diksi Rupa: Kumpulan Istilah Seni Rupa*. Yogyakarta: Kanisius.

Tinarbuko, S. (2010). *Semiotika Komunikasi Visual*. Yogyakarta: Jalasutra.