INFORMATION MEDIA DESIGN OF "DINAS LINGKUNGAN HIDUP DAN KEBERSIHAN (DLHK)” BANDUNG CITY

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ABSTRACT

Dinas Lingkungan Hidup dan Kebersihan (DLHK) of Bandung City has the main task of carrying out government affairs in the field of cleanliness and waste management in the city of Bandung. Every information submitted by DLHK is very useful for the community, especially in implementing the discipline of maintaining the environment and cleanliness in its surroundings. For this reason, information media such as posters and infographics are needed as a means of conveying information about the environment and cleanliness to the people of Bandung City through social media and websites.

This paper examines the process of design consisting of posters, infographics, and websites content to be displayed on social media Instagram and websites of the DLHK Bandung City. Information about the environment on social media is displayed on Instagram. The poster content has the theme "Commemoration of Indonesian Tree Planting Day" and "World Tree Day Commemoration". While the infographic has the theme “Rain Water Harvesting” and “Waste Sorting”. In addition to Instagram, the design was also carried out for the DLHK Bandung City recommendation database system website to find out the licensing process for various activity and development programs organized by the DLHK Bandung City.

The method used in this paper uses qualitative analysis to produce descriptive data to determine segmentation, target market, and position to map the right information flow from the DLHK Bandung City to the public. The process of designing information media at DLHK Bandung City includes: briefing, workmanship, assistance, revision, and finishing.

The results of information media: posters, infographics, and this website are used for the needs of the DLHK of Bandung City, designed based on the schedule of events or programs about the environment in the city of Bandung. Of course, this design is very useful for the community and us, so that we are able to find out various insights and information about the environment and cleanliness, as well as add experience in the process of designing information media.

Keywords: information media, environment, cleanliness.

I. INTRODUCTION

Preserving the cleanliness of the environment is very good for all of us because it can create a comfortable, clean, cool and healthy life. The definition of environmental cleanliness is the state of being free from dirt, including dust, garbage, and odors. In Indonesia, the problem of environmental hygiene has always been a growing problem. Various cases involving environmental hygiene problems every day and every year continue to increase. Therefore, the government formed an institution, namely the Dinas Lingkungan Hidup dan Kebersihan (DLHK) to assist
various problems related to environmental hygiene in every region in Indonesia. DLHK is a government agency that takes care of environmental management and cleanliness that can interact directly with the community.

DLHK has many environmental hygiene programs that need to be conveyed to the public, so that various ways are carried out to provide information through media campaigns and counseling to various regions in Indonesia. To make this happen, DLHK needs a graphic design team that can design various information and campaigns for social media and websites. Graphic design itself is currently one of the fields needed by the community, especially in Indonesia, because it can be an effective way of communicating visually. Graphic design was originally like static media, such as books, magazines, sign systems, layout designs, packaging designs, corporate identities, and so on. But along with the times, graphic design is also applied to electronic media which the term is referred to as "interactive design" or "multimedia design".

This paper examines the process of designing graphic designs in the form of posters, infographics, and website content to be displayed on social media and website of DLHK Bandung City. Information about the environment on social media is displayed through Instagram. The content of the poster designed is about "Indonesian Tree Planting Day" and "World Tree Day". While the infographic designed is about the procedures for "Rain Water Harvesting" and "Waste Sorting". In addition to social media, the design is also carried out for the website of the DLHK Bandung City recommendation database system, to find out the process of licensing various activities and development programs organized by DLHK Bandung City.

II. LITERATURE REVIEW

DLHK Bandung City is located at Jl. Sadang Tengah No.4-6, Sekeloa, Coblong District, Bandung City, West Java 40133. Initially, the environmental management of the city of Bandung was managed by the Badan Pengendalian Dampak Lingkungan Daerah (Bapedalda) of Bandung City. With the issuance of Law Number 22 of 1999 concerning Regional Autonomy in 2001, Bapedalda was changed to the Badan Pengendalian Lingkungan hidup (BPLH). In 2002-2008 BPLH was amended based on Bandung City Regulation No. 9 of 2002 concerning the Establishment of the Bandung City Regional Service Organization to become the Environmental Service which has the authority to manage the environment, forestry and mining and energy. With the existence of Law Number 32 of 2004 concerning Regional Government, Government Regulation Number 38 of 2007 concerning the Division of Government Affairs and Government Regulation Number 41 of 2007 concerning Regional Apparatus Organizations in 2008 the Bandung City Environmental Control Agency was formed which is based on the City Regional Regulation. Bandung Number 21 of 2007 concerning the Establishment of Regional Technical Institution Organizations (Bello & John, 2020; Ozturk, 2020; Malla & Brewin, 2020).

Based on Law Number 23 of 2014 concerning Regional Government, Government Regulation Number 18 of 2016 concerning Regional Apparatus and Bandung City Regional Regulation Number 12 of 2016 concerning Formation and Composition of Regional Apparatus, in 2017 the BPLH nomenclature changed and was merged with the field of Cleanliness to become the Dinas Lingkungan Hidup dan Kebersihan (DLHK).

DLHK has a vision and mission to preserve the environment in the city of Bandung. The vision is: "The Realization of a Superior, Comfortable, Prosperous, and Religious City of Bandung". Meanwhile, the missions of DLHK Bandung City are:

1. Improving the Control of Pollution and Environmental Damage.
2. Prioritizing Sustainable Development in the utilization of Natural Resources.
3. Increasing institutional capacity in environmental management.
4. Improving Infrastructure Facilities in the Field of Information and Communication between the people of Bandung.

DLHK Bandung City has the main task of carrying out government affairs in the field of environment and cleanliness. To help with this, several digital media are presented, including Electronic Data Processing such as the https://dlhk.bandung.go.id/ website. The website describes the profile of the DLHK Bandung City, information on the agenda of activities, news, activity galleries, as well as the work program of KANG PISMAN and SIMDOKLING. For example, KANG PISMAN is a movement or collaboration between the government, citizens, the private sector and others in building a new civilization of more advanced waste management through the efforts of KANG (Kurangi/Reduce) PIS (Pisahkan/Separate) MAN (Manfaatkan/Use) Waste. This movement is a form of #NyaahKaBandung which is getting cleaner and we are leveling up with the #kangpisman movement.
Besides KANG PISMAN, DLHK has an application called the Sistem Informasi Dokumen Lingkungan Hidup (SIMDOKLING). With this system, people can register online and make permits to build buildings. Admin at the SIMDOKLING can check the completeness of the submitting parties for follow-up. If it is complete the admin will provide a schedule for the applicant to come to the office to bring the original documents needed to make the environmental permit, if it is not complete the admin will refuse and send an email to the applicant for later repair.

![Figure 1 The Display of dlhk.bandung.go.id Website](https://dlhk.bandung.go.id/)

Source: https://dlhk.bandung.go.id/

DLHK also has an Instagram social media called @dlhk_kotabandung to post various information on government activity programs in the environmental and hygiene sector. The information is conveyed through the Instagram feed and story @dlhk_kotabandung.

![Figure 2 Simdokling Application Display](https://dlhk.bandung.go.id/simdokling/)

Source: https://dlhk.bandung.go.id/simdokling/

![Figure 3 @dlhk_kotabandung Instagram Display](https://www.instagram.com/dlhk_kotabandung/?hl=id)

Source: https://www.instagram.com/dlhk_kotabandung/?hl=id
Most of the posts on Instagram social media @dlhk_kotabandung present a variety of information in the form of posters and infographics to inform and make people aware of the importance of maintaining the environment and cleanliness around it. As well as information on how to classify waste according to its type, information on Rain Water Harvesting as a solution to deal with the dry season. In addition, there is also various information about environmental commemoration days such as World Tree Day on November 21 and Indonesian Tree Planting Day on November 28. All of this information is presented to realize the vision and mission of DLHK to create environmental sustainability, so that people in the city of Bandung will appreciate the environment and cleanliness in their surroundings.

Methods
The purpose of this article is to examine the process of designing information media such as posters, infographics, and website content to be displayed on social media Instagram and the DLHK Bandung City website. The explanation in this paper uses qualitative methods to produce descriptive data, while the analysis used to determine the design solution uses STP (Segmentation, Targeting, and Positioning) analysis, which means a way of grouping data to obtain good results in the solution completion process. planning. The STP analysis is explained as follows:

Segmentation
The segmentation to be achieved by DLHK Bandung City is that all people of Bandung City in general are interested in information and communicative matters, because this is because DLHK's clients are at this level. The following is the result of data processing segmentation of social media users and the DLHK website (Source: DLHK Bandung City).

- Segmentation based on geographical aspects includes area, urban area, population density, and climate.

<table>
<thead>
<tr>
<th>Geographical Aspect</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region</td>
<td>Indonesia</td>
</tr>
<tr>
<td>Area</td>
<td>Bandung City</td>
</tr>
<tr>
<td>Density</td>
<td>All Density</td>
</tr>
<tr>
<td>Climate</td>
<td>Tropical</td>
</tr>
</tbody>
</table>

- Segmentation based on demographic aspects including age, size, family, gender, income, occupation, religion, race, generation, nationality.

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>17-60 Years Old</td>
</tr>
<tr>
<td>Family Size</td>
<td>Big And Small</td>
</tr>
<tr>
<td>Gender</td>
<td>Man And Woman</td>
</tr>
<tr>
<td>Income</td>
<td>All People</td>
</tr>
<tr>
<td>Religion</td>
<td>All Religions</td>
</tr>
<tr>
<td>Citizenship</td>
<td>Indonesia</td>
</tr>
<tr>
<td>Social Class</td>
<td>Various Social Classes</td>
</tr>
</tbody>
</table>

Table 1 Segmentation Based on Geographical Aspects

Table 2 Segmentation Based on Demographic Aspects
• Segmentation based on psychographic aspects including lifestyle and personality.

Table 3 Segmentation Based on Psychographic Aspects

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>lifestyle</td>
<td>simple - luxury</td>
</tr>
<tr>
<td>personality</td>
<td>various personalities</td>
</tr>
</tbody>
</table>

• Segmentation based on behavioral aspects including user level, loyalty status, and attitude towards quality.

Table 4 Segmentation Based on Behavioral Aspects

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>User level</td>
<td>Uncertain</td>
</tr>
<tr>
<td>Loyalty status</td>
<td>Loyal</td>
</tr>
<tr>
<td>Attitude to quality</td>
<td>Bandung city people are satisfied</td>
</tr>
</tbody>
</table>

**Targeting**

DLHK as an office engaged in the environment and cleanliness must convey the latest information that is happening in the city of Bandung, has a target that is to all the people of Bandung to everyone who is interested in digital information about the environment and cleanliness.

**Positioning**

DLHK is the only institution that has information about the environment in the city of Bandung and provides accurate services, the latest news, and helps increase profits according to the tastes or desires of the people of Bandung.

The work process of the DLHK Bandung City begins when the boss gives us the task of graphic designers according to events / projects regarding environmental information around the city of Bandung. Then discuss the intentions and desires and then discuss the design to be made, after that colleagues at DLHK provide input and suggestions, then proceed to the design execution stage and are well received by DLHK, then evaluated before being published on social media and websites. The following is the flow of the information media design process for the environmental and cleanliness department of the city of Bandung:

1. Briefing: The supervisor explains what tasks must be done and provides the data needed to assist the work process.
2. Workmanship: The process is to create designs from existing data or process them from various sources and then apply them to digital media.
3. Assistance: Assistance to the supervisor after the design is made.
4. Revision: Revision is done, if there is something that needs to be revised from what we have done before.
5. Finishing: At the final stage, the last briefing is carried out and then approved by the supervisor and then assistance by the superior (Head of Division).

**Results and Discussions**

One of the results of our work is to produce design content for Instagram social media and the DLHK Bandung City website. The following is an explanation of the design results:

1. Instagram Feed Design @dlhk_kotabandung
• Garbage Selection Infographics

![Garbage Selection Infographics](https://www.instagram.com/p/B2DeYhKBpas/?utm_medium=share_sheet)

Figure 4. Infographics About Waste Sorting

Source: https://www.instagram.com/p/B2DeYhKBpas/?utm_medium=share_sheet

This infographic was designed based on the problem of the public's lack of understanding about the types of household waste. The concept of this infographic layout is made separately and in groups, there are organic waste, inorganic waste, and residual waste. The coloring of the columns is contrasted into three pieces so that viewers can understand and recognize the types of household waste, so they can easily sort when they are going to throw out the garbage. According to PERDA No. 9 of 2019, sorting waste is everyone's obligation. This infographic was shown on Instagram @dlhk_kotabandung on 6 September 2019.

![Infographic About Waste Sorting on @dlhk_kotabandung Instagram Display](https://www.instagram.com/p/B2DeYhKBpas/?utm_medium=share_sheet)

Figure 5. Infographic About Waste Sorting on @dlhk_kotabandung Instagram Display

Source: https://www.instagram.com/p/B2DeYhKBpas/?utm_medium=share_sheet
Rain Water Harvesting Infographics

Source: https://www.instagram.com/p/B5jnmByhwQM/?utm_medium=copy_link

This infographic is designed to solve the drought problem in Bandung City. The basic concept of making this infographic aims to make people understand about Rain Water Harvesting, which is one solution for water management during the dry season. Where when this infographic was made, the city of Bandung was experiencing a drought, especially in the middle of the city. This infographic was shown on Instagram @dlhk_kotabandung on December 2, 2019.

- World Tree Day Poster

Source: https://www.instagram.com/p/B5G9CJjhoGo/?utm_medium=copy_link

This poster was designed based on the issue of the lack of public awareness of the dangers of global warming. The purpose of this poster is to commemorate World Tree Day which falls on November 21. The tree object is likened to an umbrella, which is a symbol that trees are the protectors of society from global warming, so they must be preserved. By displaying illustrations like this, it is hoped that people will be more aware of the impact of global warming which cannot be left unchecked, so that people will have more respect for the environment. This poster also has the message “by planting one tree, the community will participate in planting goodness for a common future”. This poster was displayed on Instagram @dlhk_kotabandung on November 21, 2019.
Indonesian Tree Planting Day Poster

![Indonesian Tree Planting Day Poster](https://www.instagram.com/p/B5ZTodBhP84/?utm_medium=copy_link)

Figure 8. Indonesian Tree Planting Day Poster

Source: https://www.instagram.com/p/B5ZTodBhP84/?utm_medium=copy_link

This poster was designed based on the problem of the lack of awareness of the people of Bandung who are not used to planting trees. Whereas in urban areas, trees are useful for absorbing polluting gases produced by vehicles such as nitrogen oxides, ozone, and carbon monoxide. In addition, the factor of building houses for residents is mostly done in the highlands of the city of Bandung, which is one of the causes of landslides when the rainy season arrives. This poster was created with the aim of commemorating the Indonesian tree planting day which falls on November 28, and also to remind the community to try to plant trees in their surrounding environment to minimize negative impacts that can occur such as landslides, floods, and global warming. DLHK Bandung hopes that with the publication of this poster, it can invite the public to at least participate in the program to plant one tree. This poster was displayed on Instagram @dlhk_kotabandung on November 28, 2019.

Website Design of https://dlhk.bandung.go.id

In addition to working on the design of the Instagram feed, we also design the website: https://dlhk.bandung.go.id/database/home.

![Website Design](https://dlhk.bandung.go.id/database/home)

Figure 9. dlhk.bandung.go.id Website Design

Source: https://dlhk.bandung.go.id/database/home
The DLHK Bandung City Recommendation Database System aims to store environmental documents, both the licensing process and environmental reports. The basic concept of creating a user interface on the DLHK Bandung City Recommendation Database System website is to make it easier for users to use the website. The user interface is created using Adobe Illustrator and Adobe Photoshop software. After the concept and drawings for the user interface are completed, the IT team immediately applies them to HTML which is then uploaded on the server. The design concept is made not too flashy so as not to tire the eyes quickly, because the work on inputting environmental data is not instant.

III. CONCLUSION

The conclusions that can be drawn from the design of the DLHK Bandung City information media are described as follows:

The process of designing the Instagram feed @dlhk_kotabandung and the website https://dlhk.bandung.go.id/database/ aims to convey information effectively about the importance of preserving the environment and cleanliness to the people of Bandung City.

- The design of the DLHK Bandung City Instagram feed and website was made in accordance with the STP (Segmentation, Targeting, and Positioning) analysis, and to map the delivery of appropriate information to the people of Bandung City. The information media design process includes the following stages: briefing, working, assistance, revision, and finishing.

- We as graphic designers have a lot of knowledge and learning from DLHK Bandung, especially in creating social media content for Instagram @dlhk_kotabandung and the website https://dlhk.bandung.go.id. environment and hygiene themed.

REFERENCES