



DESIGN OF A PICTURE BOOK COVER ON WASTE SORTING BASED ON CHILDREN'S PREFERENCES FOR COLOR AND ILLUSTRATION STYLE

Alba, Michelia; Masnuna; Aileena Solicitor Costa Rica El Chidtian

Visual Communication Design Study Program, Faculty of Architecture And Design, University of Pembangunan Nasional "Veteran" Jawa Timur

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Abstract

Illustrated book covers play a crucial role in influencing a child's interest in a book. Attractive and communicative visuals will increase a child's interest in purchasing and reading a book. This study aims to design a book cover themed around waste sorting based on the color preferences and illustration styles preferred by children aged 9–12 years. This study employs a quantitative descriptive approach, with data collection conducted through questionnaires, direct observation, interviews, and a literature review from various sources. The questionnaire results indicate that the majority of children prefer book covers with bright, vibrant colors and a cartoon illustration style. Based on the research findings and segmentation analysis conducted, a design concept for an illustrated book cover was formulated, emphasizing the use of color, cartoon illustrations, and communicative visuals. The resulting book cover design features visuals that are attractive, relevant, and aligned with the target audience.

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✉ Correspondent's Address: Faculty of Architecture And Design,
University of Pembangunan Nasional "Veteran" Jawa Timur
Email : masnuna.dkv@upnjatim.ac.id

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INTRODUCTION

Waste sorting is the activity of separating waste according to its material type (Holimah et al., 2024). Education regarding types of waste can be provided from an early age, as environmental education taught in early childhood helps children understand the importance of preserving the environment and environmental sustainability (Maulida et al., 2024). Based on an interview with Ms. Okta, a 4th-grade teacher at SDN Tenggulunan in Candi Subdistrict, Sidoarjo Regency, she explained that waste-related materials particularly regarding types of waste are not included in this year's curriculum due to curriculum changes that merged science (IPA) and social studies (IPS) subjects, resulting in less comprehensive content compared to previous years. Understanding waste sorting for children can begin by providing education through learning materials, particularly books about types of waste.

Reading is a daily activity. Teachers, as the children's guides at school, must select the appropriate approach and learning materials to enhance the children's enthusiasm and interest in reading. A study conducted by Fatmawati and Afryaningsih on elementary school students in West Kalimantan Province regarding children's literacy skills revealed that less than 45% of students in each school demonstrated an inability to comprehend the content of their reading materials. In fact, 20% of students were found to have difficulty reading fluently. One of the factors contributing to this is the students' lack of interest in reading materials, as they feel bored by texts that are filled with words without accompanying images to illustrate the story (Fatmawati & Afryaningsih, 2023).

Picture books are a series of stories in text form accompanied by illustrations that form a cohesive whole. Picture books are designed to help students learn to read, and the inclusion of engaging visual elements makes it easier for students to understand the story's content (Manjakani et al., 2021). Picture books are a medium that children love because, in addition to

their attractive appearance, they help readers obtain information and understand the story's content more easily through the combination of text and visuals within them (Nuralifah & Masyithoh, 2024). The combination of text and visuals in a book creates a different reading experience; children become more interested and enjoy reading (Aulia et al., 2025).

The book cover is one of the most important parts of a book. Over time, book covers have evolved from merely protecting the book's contents to serving as a marketing communication tool (Imtiyaz et al., 2023). A person's first impression when purchasing a book can be influenced by the book cover. An attractive and memorable book cover is the most important aspect and must be prioritized in book cover design (Galingging, 2020).

One way to easily capture the public's attention through a book cover is with an attractive illustration design (Aisyah & Rinjani, 2023). An illustration is an image, painting, or printed artwork used to convey information visually. An attractive illustration makes it easier for someone to grasp the message even without reading the text (Imtiyaz et al., 2023). Readers tend to remember images more easily than text (Galingging, 2020). When designing a storybook, it is essential to consider the illustration style that will be applied throughout the entire book. Appropriate illustrations are crucial for presenting an engaging story to the audience (Widianingsih, 2020).

While previous studies on children's book design have emphasized the role of visual elements in enhancing reading interest, many of them primarily focus on general aesthetic considerations or narrative illustration without grounding the design process in empirical user preference data. This study offers a distinct contribution by integrating quantitative analysis of children's visual preferences into the design process of a picture book cover. By positioning children not only as passive recipients but as active informants whose preferences shape design decisions, this research extends existing approaches toward a more user-centered and

data-driven framework in children's visual communication design.

Color is the most crucial element in creating an illustration. Color can evoke psychological effects and is closely linked to human emotions. As a key component, color can capture attention, enhance mood, and evoke emotions and atmosphere (Widianingsih, 2020). Additionally, color serves as a visual element that children quickly notice, as it captures their attention and influences their emotions and overall mood. Contrasting colors help highlight key elements in illustrations, thereby guiding readers to focus on the emphasized parts of the story. The use of bright, diverse colors harmonized with the book's theme and characters enhances visual appeal, creating an enjoyable experience for readers (Sutawijaya, 2024).

When applied to book covers, color can communicate a message; the core idea within that message can heighten readers' enthusiasm to purchase the book. It is also crucial to carefully select colors, as they can influence the psychological impact and the atmosphere of the story being developed (Imtiyaz et al., 2023). Children's visual preferences such as color and illustration style must be considered when creating children's reading materials. By understanding children's visual preferences, a designer can create book covers that are more effective, communicative, and aligned with the characteristics of the target audience.

Based on the above description, this study aims to design a picture book cover introducing types of waste based on children's preferences for color and illustration style. This study focuses on book cover design by examining how the visual preferences of elementary school children can be translated into a design concept for an attractive and relevant picture book cover.

METHODS

This study employs a quantitative descriptive approach. This approach was chosen because the design aims to systematically collect data on

children's visual preferences and then implement that data into the design concept for the picture book cover.

The subjects of this study were students at SDN Tenggulunan, Candi Subdistrict, Sidoarjo Regency, aged 9–12 years. They included both boys and girls. This age group was selected because children at this age are already capable of consciously expressing their visual preferences. At this age, children are in the concrete operational stage, where they begin to think, learn, and memorize fluently (Novitasari & Anggapuspa, 2021). The design object is an illustrated book cover with the theme of waste sorting.

Data collection techniques included questionnaires, interviews, observations, and literature reviews. Questionnaires were distributed to children aged 9–12 years. The questionnaire contained questions about their preferences regarding colors and illustration styles in relation to the book covers they liked. Interviews were conducted with a children's book illustrator, Kak Milfa (@beruang_bahagia), to identify criteria for book covers that appeal to children. Direct observations were also made at bookstores to identify similar media and topics that could serve as references for the design. Additionally, a literature review was conducted to strengthen theories regarding waste, picture books, children's visual psychology, color, and illustration styles.

Data analysis was performed by categorizing respondents' answers, then analyzing and identifying dominant trends in their preferences. The results of this analysis were synthesized to form the foundation for the design concept of the picture book cover. This approach also ensures that the resulting design is not merely aesthetically pleasing but is data-driven and aligned with the preferences of the target audience.

RESULTS AND DISCUSSION

Book Cover

The book cover is the first visual element a reader sees before finally reading the entire book. A book cover serves not only as a protective cover for

the book but also as a visual communication medium that represents the book's entire content and can capture the reader's attention. The clarity of information within the book can be conveyed through the book cover design by providing a brief overview of the book's core content. An attractive visual design of the book cover can enhance the book's visual appeal to readers, encouraging them to purchase it (Imtiyaz et al., 2023). The design of a picture book cover must consider visual aspects that align with the characteristics and preferences of the target audience to increase interest in reading

The results and discussion should be presented in the same part, clearly and briefly. The following is how to display image data.

Color



Figure 1. Color Wheel.

Source :

https://id.wikipedia.org/wiki/Teori_Brewster

Color is a visual element used to enhance the aesthetics of an object, both objectively and subjectively (Meilani, 2013). According to Brewster's theory in 1831, he divided colors into four categories: primary colors, secondary colors, tertiary colors, and neutral colors. Here is an explanation:

a. Primary Colors

These are called fundamental colors, and combining any two of them can produce derivative colors. These colors include red, blue, and yellow.

b. Secondary Colors

These colors are the result of mixing two primary colors in equal proportions. Examples include green, which is the result of mixing blue and yellow; orange, the result of mixing yellow and red; and purple, the result of mixing red

and blue.

c. Tertiary Colors

Colors produced by mixing one primary color with one secondary color. Examples of these colors include magenta, which is a mixture of red and purple.

d. Neutral Colors

Colors produced by mixing all three primary colors in a 1:1:1 ratio. Examples of these colors are black, white, and gray.

In the world of design, color has significant emotional and psychological effects and can also be used to convey messages, enhance appeal, and create specific moods (Gunawan & Masnuna, 2023). The following are the psychological meanings of colors:

a. Red

Symbolizes courage, passion, love, and enthusiasm.

b. Blue

Symbolizes professionalism, trust, loyalty, and calmness.

c. Green

Symbolizes nature, safety, relaxation, and comfort.

d. Yellow

Symbolizes warmth, energy, and brightness.

e. Brown

Symbolizes the earth, warmth, nature, and stability.

Illustration Style

The presence of images or illustrations plays a crucial role in a book as they help readers visualize and better understand the book's content. Over time, illustrations have evolved beyond merely serving as a narrative aid; they are also used to enhance empty spaces, such as in magazines, newspapers, tabloids, and so on (Soedarso, 2014). According to Soedarso (2014:566), based on their appearance, illustrations can be categorized into several types, namely:

a. Naturalistic Illustrations

A type of image that shares the same form and color as the original in nature, without

- anything being removed or added.
- b. Decorative Illustrations
A type of illustration used to beautify something, where the form can be simplified or exaggerated.
- c. Cartoon Illustrations
A type of illustration with simpler and humorous forms, commonly used in children's magazines, comics, and picture books.
- d. Caricature
A type of illustration that contains criticism or satire, characterized by distorted body proportions.
- e. Picture stories
A type of illustration similar to a comic or an image with added text; its artistic technique is based on a story told from various interesting perspectives.
- f. Textbook illustrations
Used to illustrate text or describe events, whether scientific or depicting parts of objects. They can take the form of photographs, naturalistic drawings, or diagrams.
- g. Fantasy illustrations
A type of image produced through imaginative (fantasy) creative processing. Often found in story illustrations, novels, romances, and comics.

Color Preference Analysis

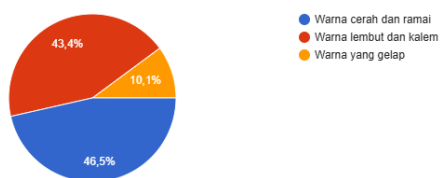


Figure 2. Results of the color questionnaire.
Source : Personal Document

According to the questionnaire results, 46.5% of children chose bright and vibrant colors as the color reference for the books they like. Examples of bright colors include yellow, blue, and red (Rini, 2025). This indicates that bright colors serve as an effective visual stimulus to attract children's

attention to the covers of picture books.

Analysis of Illustration Style Preferences

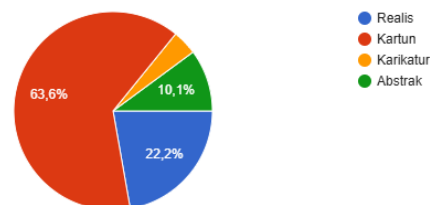


Figure 3. Results of the illustration style questionnaire.

Source : Personal Document

According to the questionnaire results, 63.6% of children chose the cartoon style as their preferred illustration style. From these results, it can be concluded that children prefer visuals that are simpler, more expressive, and easier to understand. Book covers featuring child characters or story situations relevant to daily life tend to be more appealing to children than covers featuring abstract and irrelevant elements.

Basic Design Concept

The book cover for a picture book themed around waste sorting, using media strategies, is as follows:

- a. Target Audience
Children or students.
- b. Geography
Candi Subdistrict, Sidoarjo Regency, East Java.
- c. Demographics
Boys and girls aged 9–12 years.
- d. Psychological
Have an interest in books and are interested in protecting the environment and managing waste.

Media Concept

Based on the results of the segmentation analysis above, the design of the illustrated book cover with a waste sorting theme is as follows.

- a. Book Title
The title of the book on waste sorting is "Petualangan Tio Memilah Saampah".

b. Book Description and Format

The dimensions of the book “Petualangan Tio Memilah Saampah” are 20 cm x 20 cm. The front and back covers use a hardcover binding with 260 gsm ivory paper.

Cover Design Process

Based on the basic design concept above, the process of creating the cover design for “Petualangan Tio Memilah Saampah” was carried out as follows.

Sketch

The book cover sketch was created using digital techniques, specifically the Clip Studio Paint illustration software. The following is an alternative sketch of the book cover design.

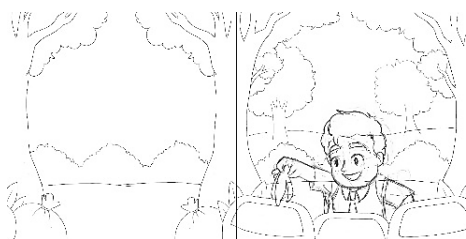


Figure 4. Cover Design Sketch 1



Figure 5. Cover Design Sketch 2



Figure 6. Cover Design Sketch 3

Source : Personal Document

Cover Design Coloring

After the sketching process, the alternative book cover designs were colored and rendered using the Clip Studio Paint software. Below are the color versions of each alternative cover design.



Figure 7. Cover Design Coloring 1

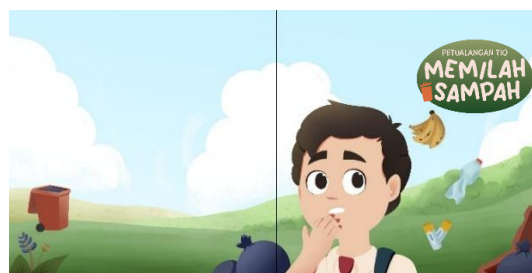


Figure 8. Cover Design Coloring 2



Figure 9. Cover Design Coloring 3

Source : Personal Document

Selected Cover Design

After going through the sketching and coloring process, the book cover design was selected by the validator. The selected book cover design is Design No. 1. This design was chosen because the depiction of the character and the surrounding environment was deemed appropriate for the book’s theme and content namely, an appeal to sort waste. The following is the selected book cover design.



Figure 10. Selected Cover Design

Source : Personal Document

This cover design has its own appeal for readers. The book cover design was created after the story's content design was completed. The depiction of a character and the environment on the book cover is closely related to the story's content. The visuals were drawn from several scenes in the story, which were then combined to form the final cover design. This was done to ensure the book cover accurately reflects the theme, illustrations, and characters within the story.

The findings of this study suggest that children's preference for bright colors and cartoon-style illustrations is not merely a matter of aesthetic taste, but is closely related to their cognitive and emotional development. In the context of visual psychology, children in the concrete operational stage tend to respond more positively to clear, vivid, and easily recognizable visual stimuli. Bright colors function as attention-grabbing elements that enhance engagement, while simplified cartoon illustrations support faster visual processing and comprehension. This indicates that effective book cover design for children should not only consider visual attractiveness but also align with cognitive accessibility and emotional resonance. Therefore, integrating user preference data with principles of visual psychology can result in more effective and communicative design outcomes for educational media.

CONCLUSION

Based on the results of the study, it can be concluded that color preferences and illustration styles significantly influence children's interest in picture book covers. According to the questionnaire

results, children tend to be drawn to book covers featuring bright, vibrant colors and cartoon-style illustrations. Bright colors can serve as a visual draw to attract children and create a pleasant impression upon their first glance at the book's visuals. Additionally, the questionnaire results indicate that cartoon-style illustrations are more preferred by children. An illustration style that appears simple, expressive, and visually uncomplicated helps children understand the information intended to be conveyed in the book.

The implementation of color and illustration style on the cover is closely tied to the book's target audience and story content. This approach ensures the cover serves as a visual draw for children, reflects the story's content, and establishes a brand identity that remains consistent with the storybook's narrative.

Thus, designing the cover of a picture book based on children's preferences for color and illustration style has proven effective in creating designs that are attractive, relevant, and aligned with the target audience's interests. This design approach is also expected to increase children's interest in reading educational books, particularly those covering waste sorting.

REFERENCES

- Aisyah, I. H., & Rinjani, D. (2023). *Pengaruh Seni Ilustrasi dalam Meningkatkan Minat Baca (Studi Desain Novel Karya Tere Liye)*. 8(1), 1–13.
- Aulia, R. N., Habibah, U., Sabrina, P. S., & Hendarwati, E. (2025). *STRATEGI LITERASI VISUAL DALAM MENINGKATKAN KEMAMPUAN MEMBACA ANAK USIA DINI MELALUI BUKU BERGAMBAR*. 11, 87–99.
- Fatmawati, R. A., & Afryaningsih, Y. (2023). *Edukatif: Jurnal Ilmu Pendidikan Buku Cerita Bergambar Berbasis Kearifan Lokal Kalimantan Barat sebagai Media Literasi Siswa Sekolah Dasar*. 5(5), 2258–2269.
- Galingging, R. (2020). *Analisis Desain Cover Buku Anak Ayo Sekolah " Lukisan Aini "*. 4(01), 583–593.
- Gunawan, O. A., & Masnuna. (2023). *Perancangan Company Profile Sebagai Media Promosi PT Bhineka Advertising*. 1(6), 62–69.
- Holimah, S., Pd, S., Wahyuni, S. A., Pd, S., Suhariyono, A.,

- & Pd, S. (2024). *Pengelolaan Sampah Ramah Lingkungan*.
- Imtiyaz, R., Inriana, S., & Regina, T. (2023). *Analisis Visual Pada Sampul Buku Cerita Anak Tentang Permainan Tradisional*. 05(03), 331–338.
- Manjakani, A., Khoirunnisa, F., & Rahmah, M. (2021). *PENGUNAAN MEDIA BUKU CERITA BERGAMBAR UNTUK MENINGKATKAN MOTIVASI MINAT BACA DI KELAS RENDAH*. 4.
- Maulida, F. I., Sulthoni, R. N. K., Syahtoni, M. G., & Hidajat, S. (2024). *Upaya Membangun Kesadaran Lingkungan Melalui Kegiatan " Eco-Kids " di TK Desa Bicak*. 2(4), 8–15.
- Meilani. (2013). *TEORI WARNA : Penerapan Lingkaran Warna dalam Berbusana*. 4(9), 326–338.
- Novitasari, V. D., & Anggapuspa, M. L. (2021). *PERANCANGAN BUKU ILUSTRASI MAKANAN TRADISIONAL KHAS KOTA SURABAYA UNTUK ANAK USIA 9-12 TAHUN*. *Jurnal Barik*, 3(1), 111–121.
- Nuralifah, F., & Masyithoh, S. (2024). *Pengaruh Penggunaan Media Buku Cerita Bergambar dalam Meningkatkan Minat Baca Anak Usia SD*. 2(2), 162–168.
- Rini. (2025). *Pengertian dan Karakteristik Warna Cerah*. Weva Textile. <https://wevatextile.com/blog/warna-cerah-penjelasan-rekomendasi/>
- Soedarso, N. (2014). *PERANCANGAN BUKU ILUSTRASI PERJALANAN MAHAPATIH GAJAH MADA*. *Humaniora*, 5(2)(9), 561–570.
- Sutawijaya, J. V. (2024). *KESESUAIAN VISUAL ILUSTRASI, WARNA , DAN TIPOGRAFI EDUKASI ANAK MENGENAI FOOD WASTE*. 7(1), 5–10.
- Widianingsih. (2020). *ANALISIS STRATEGI VISUAL CERITA EDUKATIF SEBAGAI PENDIDIKAN KARAKTER ANAK MELALUI BUKU CERGAM*. 198–205.