



## Design of Illustrated Books Supporting Women's Programs to Strengthen the Identity and Thoughts of Dewi Sartika

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### Abstract

Dewi Sartika is an Indonesian educational figure who made a major contribution to advancing women's education in the early 20th century. The educational values she taught, such as life skills, are now beginning to be forgotten in the modern education system, including at Dewi Sartika Elementary and Junior High Schools in Bandung. Based on an analysis of school conditions, it was identified that the lack of implementation of Dewi Sartika's values has impacted the weak identity of the school. This study aims to design an illustrated book as a companion to the craft-based mini-course program to preserve Dewi Sartika's educational values and increase the program's appeal. This *Illustration Book Supporting the "Keputrian" Program* is designed with a focus on craft materials, such as hot press techniques to transform plastic into new products, adopting visual narratives that are relevant to the learning styles of the younger generation. The design thinking approach is used to ensure that the designed solutions meet the needs of users, namely students, teachers, and tourists. By combining elements of aesthetics, ergonomics, and Sundanese culture, this book is expected to serve as effective, interesting, and inspiring educational media for readers. This design not only supports the preservation of traditional aspects and skills but also contributes to achieving sustainable development goals (SDGs), especially in quality education and gender equality.

**Keywords:** Books; Crafts; Dewi Sartika; Hot Press; Illustrations.

### INTRODUCTION

Dewi Sartika is one of the Indonesian educational figures who played an important role in advancing women's education in the early 20th century. Through *Sakola Kaoetamaan Istri*, she introduced formal education for women with the aim of improving their skills and knowledge so they could live independently and contribute to society (Ikmal Abdallah Syakur et al., 2023; Morgan, 2019; Mustopa & Kadarisman, 2019; Sulistiani & Lutfatulatifah, 2020). Dewi Sartika emphasized that the end result of education is to create useful human beings according to the proverb *cageur, bageur, cepat, benar*. Thus, it is not enough for students to be given basic lessons in writing, reading, and arithmetic; other lessons are needed for the virtues of human life, namely: personal hygiene, order, language, discipline, obedience, happiness, kindness, thrift, and thinking (Irawan, 2020; Maulid, 2022; PS et al., 2022; Septian, 2022). Additionally, three types of education were included: first, women's crafts such as embroidery, *menyongket*, crochet, *ngabere*, dismantling and sewing clothes, making paper flowers, drawing, and many more; second, household chores such as tidying up, organizing and folding dry laundry, ironing clothes, washing and dusting furniture, gardening, and preparing meals;

and third, cooking, which involves learning to make various recipes, including those commonly eaten (Abhariyah et al., 2022; Jayudha et al., 2021; Maulid, 2022).

Previous research by Maulid (2022) examined Dewi Sartika's contributions in comparison with other educational reformers, concluding that liberal feminist values were embedded in her model but lacked adequate follow-up in modern education systems. Similarly, a study by Wahyuni et al. (2021) on character education in visual media design emphasized the lack of contextualized local figures like Dewi Sartika in contemporary educational tools. However, both studies focused more on the theoretical legacy or general visual strategies rather than producing applicable educational tools that integrate Dewi Sartika's values in practice.

Along with the development of the times, the thoughts of Dewi Sartika are being forgotten or ignored in the modern education system, especially in the education system used in *SD-SMP Dewi Sartika Bandung*. Based on interview data, the 2024 education system at *SD-SMP Dewi Sartika Bandung* is less than optimal in implementing craft education for women. This is because the school has changed its function to an inclusive school due to financial constraints and limited human resources needed to re-implement the previously abandoned teachings. The existence of inclusive schools refers to Article 31 Paragraph 1 of the 1945 Constitution and Law Number 20 of 2003 concerning the National Education System.

Based on data collection using the 360-data method and analysis with the 5 Whys Method approach, it was identified that *SD-SMP Dewi Sartika* faced several main problems: inadequate facilities and building conditions for teaching and learning activities; minimal funds for maintenance, renovation, and learning media; lack of students; limited adequate teaching staff; and less than optimal marketing and school promotion. The root cause of these conditions is the weakness of the school's identity and self-identity due to the lack of implementation of Dewi Sartika's values, which should be the school's core foundation.

To address these issues, a new program—a mini-course program—was designed alongside a mini-living museum to introduce and preserve Dewi Sartika's values to both local and international tourists. This program is tailored to the needs of modern education and focuses on strengthening Dewi Sartika's identity and thinking. One implementation is the design of a women's program using crafts, which aims to improve skills while reviving Dewi Sartika's educational values in a modern context.

In the designed course, the target audience is Gen Z as a priority segment. To support the implementation of the program, several aspects are prepared, including supporting interior design that aligns with modern educational concepts, relevant books or teaching modules, a website as a promotional tool, and structured activity planning to ensure an interesting and meaningful learning experience. The selection of illustrated books as one of the solutions in Dewi Sartika's values-based mini-course program is based on their ability to convey concepts visually and attractively, making them relevant for Gen Z, who are accustomed to visual-based information. Illustrated books not only facilitate the delivery of complex material but also create a more immersive and enjoyable

learning experience. By using illustrations to visualize values and life skills, these books reach audiences with various learning styles. This supports effective learning for all groups, especially mini-course participants, with the priority of supporting the global sustainable development goals (SDGs). Regarding quality education (SDG 4), by teaching craft skills, this program not only preserves traditional skills but also creates equal access to skills education that supports independence and relates to gender equality (SDG 5). The aim of this research is to design an illustration-based teaching tool that embodies Dewi Sartika's legacy while supporting the goals of sustainable development, particularly SDG 4 (Quality Education) and SDG 5 (Gender Equality). The book is expected to be both an educational and cultural preservation medium that empowers young learners, promotes inclusivity, and revitalizes traditional values through modern media.

## RESEARCH METHODS

This research used a design approach applying design thinking, which focuses on strategic innovation by deeply understanding users through empathy. This method helps analyze user needs and emphasizes form, relationships, behavior, interactions, and human emotions to produce optimal solutions (Mootee, 2013). The design thinking process consists of five stages: empathy, definition, ideation, prototyping, and testing. Following these stages enables designers to solve complex problems faced by users (Dam & Siang, 2020 in Soedewi, Mustikawan, and Swasty, 2022).

At Dewi Sartika Elementary and Middle School, the design thinking process began with understanding user needs and expectations (empathize), defining the weak application of Dewi Sartika's values that weakened the school's identity (define), ideating the implementation of a mini-course supported by a teaching material book focused on craft skills (ideate), developing prototypes of illustration-based teaching books (prototype), and finally testing and evaluating the prototype to ensure its suitability for the mini-course objectives (test).

The research was conducted at Dewi Sartika Elementary and Junior High School, located at Jl. Kautamaan Istri No. 12, Balonggede, Regol District, Bandung City, West Java.

Data collection methods included direct observation to identify existing problems, as well as multiple interviews with key informants such as the school principal, foundation representatives, and Bandung Good Guide, who is managing the mini-museum project, to confirm issues and present design sketches. A literature study was performed to support analysis, drawing from previous research, journals, and relevant books. Finally, a questionnaire was used during the testing phase to assess the effectiveness of the illustrations and the clarity of images and layouts in the designed book.

Data obtained through observation and interviews were analyzed using internal analysis tools, including the 5 Whys Method, SWOT, and PEST analyses. During the ideation stage, brainstorming was conducted using mind maps, followed by sketching and pitching to clients and users to determine the main solution.

RESULTS AND DISCUSSION

Empathize

Dewi Sartika School, located at Jl. Kautamaan Istri No. 12, Balonggede, Bandung, is an elementary and junior high school that integrates local cultural values and Dewi Sartika's history of struggle into its learning. Observations were conducted twice, on October 1 and 15, 2024, to understand the school's conditions, interview key figures, and collect data using the 360-data approach.

1. 360 Data

a) School facilities

The school's facilities include 16 classrooms, two of which are cultural heritage buildings. Some rooms need repairs due to poor lighting and air circulation. Tangible aspects include the ABK consultation room, princess laboratory, library, prayer room, field, canteen, and the Dewi Sartika monument. The front area has the main gate, security guards, parking lot, and waiting area. The school also provides facilities such as mading, anti-bullying posters, Ecobin, and accessibility for students. All of these elements support a comfortable, inclusive, and inspiring learning environment.

Intangible aspects include:

| Table 1. Facilities                 |                                                                                                                                                                                                                                                                                                   |                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                  |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                     | Academic Lessons                                                                                                                                                                                                                                                                                  | Extracurricular                        | School Routine Activities                                                                                                                                                                                                                                                                                                                                                                                                                      | The Importance of the Princess of Sartika                                                                                                                        |
| Elementary School (Accreditation B) | • IPAS (Natural and Social Sciences)<br>• English<br>• Religious Education and Ethics<br>• Pancasila Education<br>• Indonesian Language<br>• Mathematics<br>• Physical Education Sports and Health<br>• Arts and Culture (Music Arts, Fine Arts, Theatre Arts, and/or Dance Arts)<br>• Local Load | Futsal                                 | • Celebration of the birth of Dewi Sartika every December 4 (Sundanese dress parade, nyekar to the grave)<br>• Food practice activities (gethuk & ice cream)<br>• Literacy activities (books, poems, rhymes, etc.)<br>• Hydroponic activities & sale of produce<br>• Waste sorting activities (River Clean Up)<br>• Market day activities (pocket money cooperative)<br>• Sing the Song of Solomon<br>• Princesses competition (used to exist) | • A Culture of Culture (Language, Culture)<br>• Practice cooking and making gethuk<br>• Calculation of money and capital in market days<br>• Literacy activities |
|                                     |                                                                                                                                                                                                                                                                                                   | Angklung (Competition and Competition) |                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                  |
|                                     |                                                                                                                                                                                                                                                                                                   | Choir (formerly existed)               |                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                  |

|                                             |                                   |                              |                                                         |                               |
|---------------------------------------------|-----------------------------------|------------------------------|---------------------------------------------------------|-------------------------------|
| <b>Junior High School (Accreditation A)</b> | • ONLY                            | Scout                        | • Sewing skills                                         | • Sewing activities           |
|                                             | • PJOK (Sports)                   |                              | • Celebration of the birth of Dewi Sartika (December 4) | • Student leadership training |
|                                             | • Indonesian Language             |                              | • Cooking activities                                    |                               |
|                                             | • IPA                             | Paskibra                     | • Student leadership activities (LDKS)                  |                               |
|                                             | • Bahasa Sunda                    |                              | • Involvement of ABK students                           |                               |
|                                             | • English                         |                              |                                                         |                               |
|                                             | • Informatics                     |                              |                                                         |                               |
|                                             | • PPKN                            |                              |                                                         |                               |
|                                             | • Mathematics                     |                              |                                                         |                               |
|                                             | • IPS                             |                              |                                                         |                               |
|                                             | • Cultural Arts and Crafts        |                              |                                                         |                               |
|                                             | • BTQ (Read and Write the Qur'an) | Sports (Basketball & Futsal) |                                                         |                               |
|                                             | • Princesses Lessons              |                              |                                                         |                               |

Source : Personal Documentation

#### b) Policy

Dewi Sartika School has a vision of "Cageur, Bageur, Bener, Pinter, Tur Singer" which is based on faith and piety. Its mission includes character development, student competence, and fun learning to produce citizens with noble, creative, and responsible character, including regular students and ABK. The school's policy emphasizes the 9K (Safety, Order, Beauty, Cleanliness, etc.) and requires parents to provide an accompanying teacher for children in regular classes.

Supportive government policies include regulations on Sundanese culture in schools, cultural heritage management (Bandung Regional Regulation No. 7 of 2018), national education (Law No. 20 of 2003), and inclusive education (Permendiknas No. 70 of 2009).

#### c) Technology:

SD-SMP Dewi Sartika provides Wi-Fi for online activities, Smart Class services for IT lessons, and junior high school teacher attendance using fingerprints (Bramantoro et al., 2020; Jin et al., 2019). Technological device facilities such as computers and printers are only available in the administration room, while learning media is still dominated by conventional books.

#### d) Human Resources (HR):

The school has 15 elementary school teachers and 16 junior high school teachers, including administrative staff, one female teacher, one janitor and one security guard. The main challenges are the high turnover of teachers and the lack of formal education background for elementary school teachers. Regular internal training is carried out, including weekly digital training, especially for teachers who are less tech-savvy.

#### e) Future Plans and Strategies (Renstra):

The school focuses on developing the values of Dewi Sartika and Sundanese women through the concept of a living museum and skills-based mini courses. Social media promotion continues to be optimized to expand information and reach the public.

#### f) End User:

Local and international communities, especially Generation Z with an age range of 13–40 years. Competitors: The school competes with SMK Balai Perguruan Putri Van Deventer (Kindergarten, Junior High School, Vocational School) and Taman Siswa Bandung.

g) Intermediary:

Promotion is carried out through word of mouth (WOM), tourism activities (Bandung Good Guide), parades to celebrate Dewi Sartika's birthday, and social media such as websites and Instagram.

h) Financiers:

The source of funding comes from BOS funds, foundations, school committees, student tuition, alumni, as well as support from Bandung Good Guide and Bandung Heritage.

i) Suppliers and Work Process:

There are 16 junior high school teachers, including one female teacher. The learning schedule for elementary school students is at 07.00–13.00 WIB (extracurricular until 14.00 WIB), while junior high school until 14.00 WIB (with IT training until 15.00 WIB). The work process faces the challenge of high teacher turnover, with the salary of honorary teachers only 10% of the Bandung UMR.

j) History:

The school was founded by Dewi Sartika in 1904 at the Bandung Regency Hall to empower women through the education of skills such as reading, writing, and foreign languages. After being closed due to Bandung Lautan Api, this school developed into Dewi Sartika Elementary and Junior High School with buildings that are now cultural heritage and managed by the Dewi Sartika Foundation.

k) 4P (product, promotion, place, price)

**Table 2. 4P**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product</b> <ul style="list-style-type: none"> <li>• Teacher/educator services</li> <li>• Implementation of the Independent Curriculum for the academic knowledge of regular students &amp; ABK</li> <li>• Extracurricular activities</li> <li>• Routine school activities (waste sorting, hydroponics, pakumis)</li> <li>• School facilities (buildings, learning media, parking)</li> <li>• The values of education and womanism for Sundanese women by Dewi Sartika</li> </ul> | <b>Promotion</b> <ul style="list-style-type: none"> <li>• Social media (Instagram &amp; personal WA of the principal)</li> <li>• Website of the Dewi Sartika Foundation</li> <li>• Word of Mouth (WOM) promotion from teachers, alumni, and the surrounding community</li> <li>• Bandung Good Guide &amp; Bandung Heritage</li> <li>• Annual event: Dewi Sartika's Birthday (December 4th)</li> </ul> |
| <b>Price</b><br><b>Affordable Price</b><br><b>SD:</b> <ul style="list-style-type: none"> <li>• Entrance fee IDR 6,100,000 (including tuition until July and uniform: batik &amp; sports)</li> <li>• Regular student tuition: IDR 200,000/month, ABK students: IDR 450,000/month</li> </ul>                                                                                                                                                                                           | <b>Place</b> <ul style="list-style-type: none"> <li>• Easy access, the school is in the city center (around the Square)</li> <li>• School buildings are cultural heritage and educational tourist destinations</li> <li>• Building area, open, green and comfortable area</li> </ul>                                                                                                                  |

|                                                                                                                                                                                                             |                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| <b>SMP:</b><br><ul style="list-style-type: none"> <li>• Entrance fee IDR 900,000 (including sportswear &amp; batik)</li> <li>• SPP IDR 120,000/month, join the new IT program: IDR 30,000/person</li> </ul> | <ul style="list-style-type: none"> <li>• Strategic location near superior accredited schools</li> </ul> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|

[Source : Personal Documentation]

## 2. Interview Data

Interviews with important figures in Dewi Sartika Elementary and Junior High Schools reveal the long history of this school as a Wife Primary School founded by Raden Dewi Sartika. The school initially focused on the education of girls' skills, such as cooking, sewing, and household skills, but changed since the merger of the SKKP in 1979 and the adjustment of the national curriculum. Now, schools face challenges in maintaining the identity of princesses and Sundanese culture, even though they still carry out cultural activities such as angklung and scouting. Limited facilities, declining student numbers, and competition with other schools are the main obstacles. The Bandung Good Guide community collaborated with Bandung Heritage to help the school through the management of cultural heritage buildings and the development of the Mini Living Museum of Sakola Kautamaan Istri (SKI). The museum aims to introduce the history of the school, the values of Sundanese women, and create a collaborative ecosystem for research on Sundanese women. With this approach, it is hoped that the school can be better known and continue to develop in a better direction.

## Define

### 1. Internal Analysis

Internal analysis identifies the Strengths and Weaknesses factors specifically against the 360data which can be seen in the figure below:

**Table 3. 360data Internal Analytics**

| 360 Data            | Strength                                                                                                                                                                                                                       | Weakness                                                                                                                                                                                                                                                                 |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>History</b>      | Dewi Sartika Elementary and Junior High School, which used to be a Wife Primary School, is a symbol of Dewi Sartika's struggle in women's education. Currently, it is a national cultural heritage that needs to be preserved. | <ul style="list-style-type: none"> <li>• The existence of Dewi Sartika Elementary and Junior High School is currently rarely known to people</li> <li>• Lack of application of Dewi Sartika's thinking in Teaching and Learning Activity as a school identity</li> </ul> |
| <b>HR</b>           | Elementary and junior high school students, teachers, employees, and foundations are school stakeholders. Students consist of regular students and ABK students.                                                               | <ul style="list-style-type: none"> <li>• Educators and teachers do not have educational background and teaching skills</li> <li>• The majority of elementary school students are ABK, but human resources are not adequate</li> </ul>                                    |
| <b>Work Process</b> | The Teaching and Learning Activity process lasts 5 days (Monday–Friday) from 07.00–                                                                                                                                            | <ul style="list-style-type: none"> <li>• New teachers do not have an ABK education background</li> </ul>                                                                                                                                                                 |

|                   |                                                                                                                                                                                |                                                                                                                                         |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
|                   | 14.00. Teachers understand ABK through YouTube, seminars, and monthly training with psychologists.                                                                             | • The teaching media of children with disabilities is differentiated, not equivalent to regular students and the independent curriculum |
| <b>Financiers</b> | Funding comes from the BOS Fund, foundations, school committees, and student contributions (SPP). There are also hydroponic activities whose results are returned to students. | Inadequate funding for maintenance, renovation, and learning innovations that reflect the identity of Dewi Sartika School               |

Source: Personal Documentation

## 2. PEST Analysis

Based on observation data, the data that has been collected is categorized into four categories, namely political, economic, sociological and technological categories, in these aspects an analysis of factors opportunities and threats.

**Table 4. PEST Analysis**

| Aspect               | Opportunities                                                                                                                                                                                                                                                                                           | Threats                                                                                                                                                                                             |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Political</b>     | Government Regulations: <ul style="list-style-type: none"> <li>• Cultural Heritage Schools</li> <li>• Inclusive Schools</li> <li>• Private Schools</li> </ul> Dewi Sartika Foundation Regulations                                                                                                       | Political instability and government policies will disrupt the stability of the education process. Inclusive school policies can threaten the school's identity.                                    |
| <b>Economical</b>    | <ul style="list-style-type: none"> <li>• Assistance from the government, namely the BOS Fund</li> <li>• Funding from the Dewi Sartika Foundation</li> </ul>                                                                                                                                             | The economic crisis and inflation will disrupt independent funding from the Dewi Sartika Foundation and also from parents of students.                                                              |
| <b>Sociological</b>  | <ul style="list-style-type: none"> <li>• Increasing public awareness of the existence of the Dewi Sartika school that teaches Sundanese philosophy and women's intelligence.</li> <li>• Preserving the nation's cultural heritage and Dewi Sartika's thinking as the identity of the school.</li> </ul> | <ul style="list-style-type: none"> <li>• Changes in people's lifestyles that affect students' interest in history.</li> <li>• Competition between schools in Bandung is getting tighter.</li> </ul> |
| <b>Technological</b> | <ul style="list-style-type: none"> <li>• Internet access makes it easier for teachers and students.</li> <li>• Learning technology improves the quality and hard skills of students.</li> </ul>                                                                                                         | The high cost of implementing technology can be a financial burden for schools.                                                                                                                     |

[Source: Personal Documentation]



### 3. SWOT Analysis

Based on the analysis of Strengths and Weaknesses on 360 data analyzed internally, the data is combined with the data opportunities and threats that have been obtained in the PEST analysis, which is then combined into SWOT data.

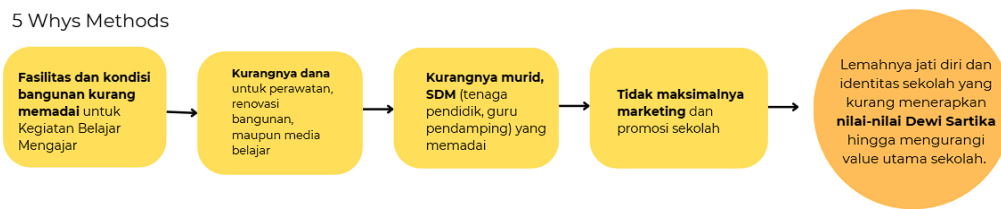
**Table 5. SWOT Analysis – SMP Dewi Sartika**

| <b>STRENGTHS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>WEAKNESSES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>✓ Dewi Sartika Junior High School has A accreditation</li> <li>✓ School building becomes a cultural site by Bandung Heritage &amp; Bandung Good Guide</li> <li>✓ The original site of the Wife Virtue School is nationally and internationally renowned</li> <li>✓ Easy access because it is in the middle of the city (around the Square)</li> <li>✓ Affordable education fees compared to other private schools in the city of Bandung</li> <li>✓ Independent School Foundation: Dewi Sartika School Foundation</li> <li>✓ 3 months in-house training for new educators</li> </ul> | <ul style="list-style-type: none"> <li>✓ Lack of facilities for inclusivity of ABK students</li> <li>✓ Limited buildings and facilities (accessibility and limited space)</li> <li>✓ Decrease in the number of students and high teacher turnover due to low salaries</li> <li>✓ Lack of full implementation of Sundanese Princess values</li> <li>✓ School promotion is weak, promotional media is ineffective</li> <li>✓ Limited access to technology (no computer access for learning)</li> </ul> |
| <b>OPPORTUNITIES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>THREATS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>✓ The establishment of the Living Museum of the Kaoetamaan Istri School as a tourism potential and support for social institutions</li> <li>✓ Relations between School alumni for fundraising</li> <li>✓ Girls' education is currently lacking so that if it is managed properly, it can attract the interest of students' parents</li> <li>✓ Students' abilities in their fields can help improve the school's reputation</li> </ul>                                                                                                                                                | <ul style="list-style-type: none"> <li>✓ Funding is only from BOS funds, not yet financially independent</li> <li>✓ The school becomes identical to ABK and is not inclusive for regular students</li> <li>✓ The disappearance of the identity of the Kaoetamaan Istri School due to changes in the curriculum of educators</li> <li>✓ A lot of rivals in the same region</li> <li>✓ Lack of human resource capabilities results in graduates who are less able to compete</li> </ul>                |

Source: Personal Documentation

### 4. 5 Why's Method

The 5 Why's Method is used to identify the main problem that has been formulated, and then identify the root of the problem that needs to be solved. In the analysis that has been carried out, the root of the problem is the weak identity and identity of the school that does not apply the values of Dewi Sartika to reduce the main values of the school. The lack of school value causes a decrease in students from year to year, this causes a lack of funds for maintenance assessed from school income calculated by students, causes a lack of maintenance of facilities and teachers and school administrators, because the main value of the school is less prominent, resulting in marketing and promotion of the school that is not optimal.



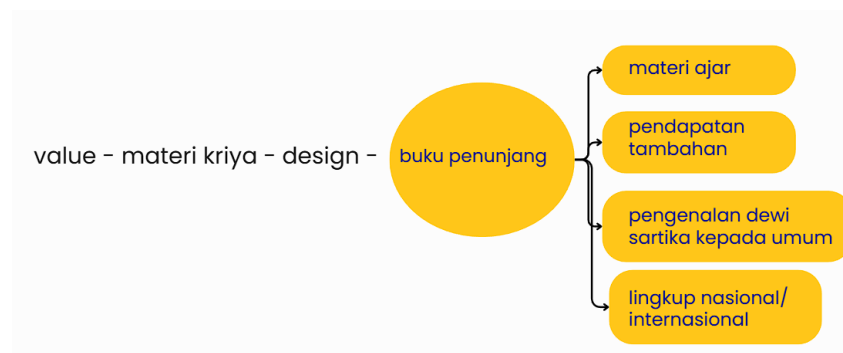
**Figure 1. 5why's Method Framework**

Source: Personal Documentation

## Ideate

The ideation techniques used include determining design concepts, sketches, and evaluations. Of the many ideas gathered, at the end of this stage it is necessary to evaluate each of them to find the best idea.

1. The Kriya-Based Princess Mini Course program aims to revive Dewi Sartika's thoughts through craft-based classes. This activity supports the introduction of schools with craft teaching modules, which combine cultural values, practical functions, and innovation to create high-value works of art. The goal is to teach design skills for women's financial independence, strengthen the identity of girls' schools in the modern era, as well as expand the introduction of schools.
2. The Experimental Design Mini Course teaches how to process plastic into new materials using the hot press technique with a class duration of about three hours. Participants can produce products from recycled plastic as well as get education about waste processing to make it more useful.
3. As a companion, the comic-style visual narrative-based illustration book is designed to simplify the learning process in the mini course. This book is also expected to be a medium for promoting Dewi Sartika's values with national and international coverage and supporting additional income for schools.

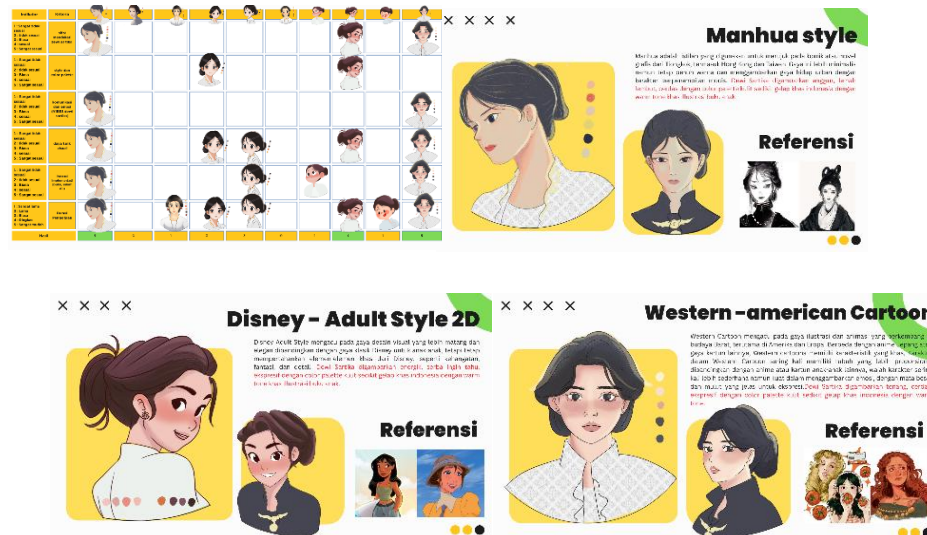


**Figure 2. Planning Concept**

Source: Personal Documentation

4. In making craft illustration books, the main character is needed as an all-knowing narrator who teaches the recycling method of Experimental Design material. A total of 10 sketches were created with different styles, color palettes, gestures, and expressions to find the most suitable style. Each sketch considers the characteristics of Sundanese

women, such as skin color. Of the 10 sketches, the 3 best sketches were selected using scoring based on character traits, style, color palette, visual appeal, communication, emotions, implementation potential, and duration of work. The selected sketches were submitted to the Foundation and Bandung Good Guide for a final decision.



**Figure 3.3 Sketch and Scoring Alternatives**

Source: Personal Documentation

a) Ciawitali Pattern

Ciawitali motifs are taken from Cimahi's typical batik which depicts the relationship between humans and nature, especially the flow of water flowing in the area. This motif contains the message of nature preservation and the importance of protecting natural resources, especially water, which is the source of life. It can be used as a symbol of the values of harmony with nature in the design of book attributes.

b) Mega Cloudy Batik

Mega Mendung Batik originated from Cirebon and contains a philosophy of calmness and fortitude. The clouds in this motif symbolize the calmness that must be maintained in difficult situations. The distance between the clouds also depicts the freedom that must be balanced with the norms and rules in life, making it a symbol of wisdom in book design.

c) c) Batik Rereng Barong

Batik Rereng Barong depicts the elegant and luxurious style of menak priangan clothing. The use of this motif reflects social stratification and beauty, with luxurious accessories that enhance the look. This design symbolizes elegance and social status in Sundanese culture, making it an aesthetic element in illustration books.

d) d) Bunga Picung

The Picung flower symbolizes fortitude, patience, and toughness of heart. This plant reflects Dewi Sartika's unwavering spirit in her struggle for women's education and

empowerment. The Picung flower is a symbol of steadfastness in facing the challenges included in book design.

e) e) Meatballs and Klepon

Meatballs are a symbol of unity and the spirit of never giving up, reflecting the food enjoyed by all groups. Klepon, as a symbol of simplicity, contains the values of goodness that can be learned. Both teach social values and a spirit of life that are relevant to the context of the book.

f) f)Hot-Press attribute

The fusing or hot press technique is used to process used plastic into new useful materials. This technique provides the value of creativity in turning waste into use-value products, illustrating efficient and innovative environmental management efforts, becoming an important part of the book design mini course.

g) g) Bottle Upcycle Creation

Bottle upcycling is a creative technique of turning plastic waste into products with more value. This upcycle supports the reduction of waste and negative impacts on the environment, as well as introducing sustainable solutions that can be applied in daily life. This technique reflects the ideology of sustainability that is integrated in the book.

h) h)Background 3D

The 3D backgrounds used in the book design are generated using the Sketchup and Room Planner applications. This background gives the impression of a deep and interactive space, creating an atmosphere that fits the theme of the book's design and gives it a modern feel that is relevant to the topic raised. The Figure Ground principle explains how the human eye separates the main object (figure) from its background. In book design, the use of proper contrast between text and background can improve readability and the reader's focus on important information. (Sumema, et al., 2023).

i) i)Font

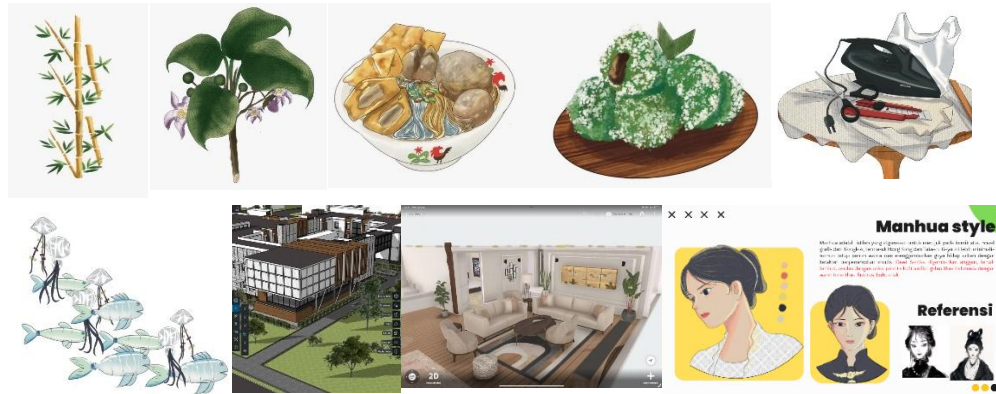
Typography is the art and technique of selecting, arranging, and arranging letters and text for effective visual communication purposes. In graphic design, typography plays an important role in improving readability, aesthetics, and conveying messages to audiences. According to Sihombing (2001), typography is a science in graphic design that studies the intricacies of letters. Typography is often used as a guide to designing writing that will be used in both advertising and packaging (Mirza, I. M. M. 2022).

j) j) Font selection in the book uses Anime-Ace for dialogue and Palatino for main text. Anime-Ace was chosen for its high readability for digital comics, while Palatino, with its old-serif style, gives an elegant and formal feel, ideal for textbooks with teaching purposes. Both of these fonts support an attractive and functional look in books.

## **5. Evaluation & Pitching**

a) a) Evaluation and Pitching were carried out twice, in the first pitching with Bandung Good Guide discussed the planning of the mini course and the selection of alternative characters as well as some inputs or suggestions. Pitching with Bandung Good Guide will be held on December 11, 2024.

- b) b) Evaluation and Pitching The second is with the Foundation discussing the planning of the mini course and the selection of alternative characters as well as some inputs or suggestions. This pitching will be carried out on December 12, 2024
- c) c) Selected Design



**Figure 4. Selected Designs and Their Attributes**

Source: Personal Documentation

### Prototype

The prototype is carried out after determining the final character. In the script created, two supporting characters are added in the creation of an illustration book that adopts the style, physical characteristics and color palette of the characters that have been selected, the prototype is made using the procreate application in making illustrations and using adobe illustrator in typing the content, then the outdoor background used is the 3D background of the 3D warehouse which is edited using the Sketchup application, In addition, other 3D backgrounds, namely indoor backgrounds, are made using Room Planner: AI Home Design.

#### 1. Main Character Design / Asih Ningsih (Nining)



**Figure 5. The Character Design of This Character**

Source: Personal Documentation

#### 2. Additional Character Design / Bandung Suryadiputera (Dudung)



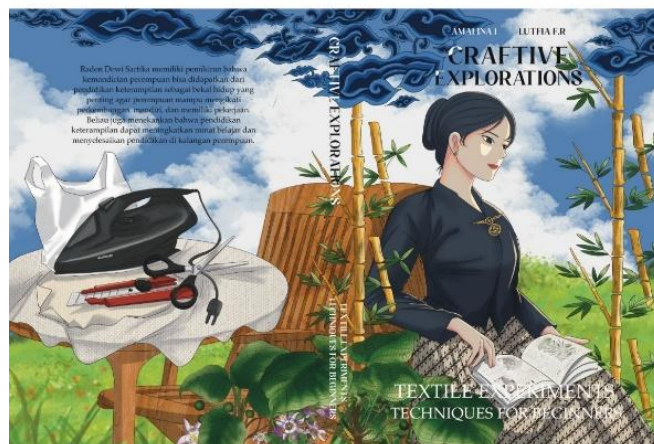
**Figure 6. Heal Character Design**  
Source: Personal Documentation

### 3. Additional Character Design / Ayu Suryani Putri (Ayu)



**Figure 7. Beautiful Character Design**  
Source: Personal Documentation

### 4. Cover Design



**Figure 8. Cover Design**  
Source: Personal Documentation



## 5. Cover-closing Layout Design

Elements arranged in a continuous line or pattern tend to be perceived as a whole. In book design, this can be applied by arranging visual elements such as text and images in a logical flow to guide the reader through the material naturally. (Yuwono & Anggraeni, 2023).





**Figure 9. Layouting 1 subchapter**  
Source: Personal Documentation

## 6. Mockup







**Figure 10. Mockup**  
Source: Personal Documentation

## Testing

User Testing was carried out using a questionnaire targeting generation z with an age range of 13-40 years. At the beginning of the questionnaire, each page of the book is shown to make it easier for respondents to know the content of the book and its layout, then after the book display, followed by a questionnaire with a total of 16 questions on a likert scale to measure ease of reading, flow suitability, visual interest and input to the book prototype. The questionnaire was filled out by 20 respondents, some of whom were respondents who took part in the practical testing of the mini course directly.

### 1. Summary of Testing Results

a) Based on the results of the questionnaire, the majority of respondents gave very positive responses to various aspects of this book prototype. Most respondents stated that the illustrations in the book are easy to understand, relevant to the material being described, and consistent across the page. A total of 19 respondents also agreed that illustrations can be understood without having to read the text in detail. The layout, use of color, and sequence of images were considered to support the explanation of the steps effectively, with the majority of respondents strongly agreeing with these elements.

b) In terms of content, this book is considered to provide a fairly detailed explanation of the steps without exaggeration, with clear written instructions and familiar terms. A total of 16 respondents found the overall appearance of the book attractive, and 15 respondents agreed that it provides sufficient information about the importance of upcycling. This book is also considered to be in accordance with the reader's level of understanding and easy to follow without additional help.

c) However, there are several suggestions for improvement, such as comics that are too short, text that is too dense, unclear reading order, and the need to improve bubble text. This input is used as evaluation material for further improvement to improve the quality of the book.

## CONCLUSION

The challenge of limited public understanding of Dewi Sartika's values—particularly regarding women's education and emancipation—can be addressed by offering a mini-course that reintroduces these values through craft-based activities supported by engaging, easy-to-understand educational media such as illustrated books. These books are designed with appealing visuals tailored to the younger generation, incorporating visual aesthetics, reading comfort, and Sundanese cultural elements to enhance relevance and reader engagement. Using a design thinking approach, the development process involves deeply understanding readers' experiences via observation, interviews, and prototype testing to create illustrations that effectively communicate Dewi Sartika's legacy. Beyond education, the book serves as a means to preserve cultural identity and inspire youth appreciation of Dewi Sartika's contributions. Future research could explore the long-term impact of such illustrated educational tools on students' understanding and internalization of cultural and gender equality values, as well as assess the effectiveness of different visual strategies in diverse learning contexts.

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