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Feasibility Analysis of Bustier and Peplum with Puzzle Shape Patchwork Technique

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Abstract

The development of fashion trends influenced by technology and social media has increased fashion consumption among the public, especially teenagers. The rise of fast fashion accelerates the trend cycle while contributing to the increasing volume of patchwork waste. This condition encourages design innovation that supports sustainable fashion. This study aims to explain the process of making and analyzing the feasibility of bustier and peplum using a puzzle-shaped patchwork technique by utilizing batik patchwork fabric waste from a production house in the Sekaran area, Gunungpati. The research method uses a quantitative descriptive approach with data collection techniques using observation sheets. The research instrument was tested for validity using the Aiken's Coefficient V with the validity results of 30 assessment items having a V value of ≥ 0.75 and stating that all items are valid. The reliability test used intraclass correlation coefficient (ICC) with a single measure value of 0.926, and an average measure of 0.978, showing very good reliability. The data analysis in this study uses percentage descriptive analysis to produce quantitative data. The results of the study show that; 1) The making of bustiers and peplums begins with a moodboard and design that is used as a reference, then the manufacturing process is carried out gradually and systematically, starting from the determination of tools and materials, pattern making, sewing process, and final finishing; 2) The results of the feasibility analysis based on the assessment of 5 expert panelists and 20 trained panelists on six indicators show that the category is very feasible with The overall percentage is 94%, with the assessment results of each indicator, namely design of 16.07%, speciality of 16.02%, aesthetics of 15.73%, fashion performance of 15.60%, size of 15.52%, and sewing technique of 15.37%, which as a whole show good assessment results.

Keywords: Patchwork, Puzzle, Bustier, and Peplum

INTRODUCTION

Rapid technological advances have a great influence on the changes in fashion trends that are increasingly dynamic. The term fashion has become an important part of human life, where with the development of the times, human attention to fashion and appearance is growing¹. The younger generation now expresses themselves through social media as a forum to show character, inspiration and visual identity. In line with previous research statements, fashion functions as a medium of self-expression that reflects an individual's social status, ideas, attributes, and aesthetics².

The development of digital technology also accelerates the flow of information about fashion styles, materials, and fashion consumption. This condition makes fashion trends very dynamic and

¹ A. J. Siloto, "Fashion Sebagai Identitas Diri (Studi Deskriptif Tentang Fashion Sebagai Identitas Dalam Mengkomunikasikan Diri Dikalangan Mahasiswa Universitas Budi Darma Medan)," *Doctoral Dissertation, Fakultas Ilmu Sosial & Ilmu Politik, Universitas Islam Sumatera Utara*, 2023, 1–9.

² A. R. Pohan, "Dampak Fashion Terhadap Kepercayaan Kepercayaan Diri Remaja Di Desa Perkebunan Patiluban Kecamatan Natal Kabupaten Mandailing Natal," (*Doctoral Dissertation, UIN Syekh Ali Hasan Ahmad Addary Padangsidimpuan*), 2024, 1–131.

quickly change³. In line with statements in other research, the development of the internet and digital technology has had a significant influence on people's consumption patterns, especially the younger generation⁴. This situation forms trends through personal style uploads, following influencers, or involvement in the fashion community. These changes have also encouraged the emergence of the fast fashion concept that offers fast products at affordable prices⁵. However, on the other hand, these developments contribute to the increase in patchwork waste and environmental problems.

Data from the National Waste Management Information System (SIPSN) in 2024 shows that patchwork in Indonesia reaches 2.55%, occupying the 6th position as the most type of waste⁶. Production houses in the Sekaran Gunungpati area generally use patchwork waste as stuffing for dolls, chairs or household linen and are even used for floor wipes. The waste ultimately ends up in landfills⁷.

Sustainable fashion is present as a solution to reduce environmental impact through waste processing into more functional and durable products. According to previous research, the application of sustainable fashion principles not only produces qualified products, but also provides social value by empowering tailors and craftsmen through waste treatment using environmentally friendly patchwork techniques⁸.

The patchwork technique is a technique in combining pieces of fabric into a work or clothing according to desire⁹. Several previous studies have applied patchwork techniques to make clothing, in the form of dresses produced from patchwork waste with patchwork techniques¹⁰. Another study also applied patchwork techniques to patchwork waste to produce crop top jackets with the source of the idea of covid-19¹¹. However, the application of puzzle-shaped patchwork techniques in fashion such as bustiers and peplums is still rarely researched. The shape of the puzzle was chosen as the source of the idea because of its shape that is identical to the piece of the picture, but in this study it was applied as a dynamic abstract motif due to the difference in color and motif of the batik patchwork fabric used.

The results of observations carried out on 5 production houses in the Sekaran area, Gunungpati, show that the amount of patchwork produced by each production house averages between 5 kg to 10 kg per month, depending on the number of orders received. The waste patchwork produced has a variety of sizes, ranging from small pieces measuring 5-15 cm to large pieces measuring 45 cm. However, small pieces of patchwork are generally only thrown into the trash or used as fillers for dolls and chairs, so this condition shows that small pieces of patchwork have not been utilized optimally and have the potential to increase the volume of textile waste. One of the efforts made to overcome this problem is through the application of puzzle shapes, because this shape allows small pieces of patchwork to be arranged flexibly and easily applied to various types of clothing such as ready to wear¹², as well as clothes with difficult construction. Based on the results of the description above, this study encourages the selection of puzzle shapes as a source of inspiration, because it allows the use of

³ S. Lestari, "Analisis Konstruksi Fashion Involvement Remaja Pada Masa Pandemi Covid-19," *Analisis Konstruksi Fashion Involvement Remaja Pada Masa Pandemi Covid-19* 11(2) (2020): 128-145.

⁴ J. Purwanto, D., Fauzan, R., Afifah, N., & Juniwati, "Pengaruh Sosial Media Dan Cross Cultural Marketing Terhadap Impulsif Buying Gen Z Pada Fast Fashion Dengan Mediasi," *Jurnal Bisnis Dan Kewirausahaan* 14(1) (2025): 60–74.

⁵ J. Leman, F. M., Soelityowati, J. P., & Purnomo, "Dampak Fast Fashion Terhadap Lingkungan," *Prosiding Seminar Nasional ENVISI*, 2020.

⁶ Elawati Sutarjo, Fitria, L. J. N., Wijayanti, A. and P. Fitriana, P., & Napipah, "Pendampingan Pengrajin Batik Berbasis Ekonomi Sirkular Melalui Olahan Limbah Tekstil Batik Sebagai Wujud Implementasi Kebijakan Industri Hijau," *Jurnal Pengabdian UNDIKMA* 6, no. 4 (2025): 949–60.

⁷ J. S. N. Zahrotulmuna, A., Rizki, F. N., Damayanti, S., & Hum, "Inovasi Pengolahan Kain Perca Guna Menciptakan Produk Bernilai Jual Tinggi," *Jurnal Pendidikan Tambusai* 8, no. 1 (2024): 14609–14.

⁸ H. H. Karimah, N. A., & Adinugraha, "Analisis Penerapan Sustainable Fashion Dan Trend Forecasting 2023-2024 Pada Butik Wilsenwillim," *IEB JOURNAL Islamic Economics and Business Journal* 6, no. 1 (2024): 15–35.

⁹ H. Sakinah, F. N., Abu, A., & Suryani, "Perbedaan Hasil Jadi Patchworj Pada Pembuatan Rompi Meggunakan Bahan Satin Dan Katun," (Doctoral dissertation, Universitas Negeri Makassar), 2020.

¹⁰ N. Purba, "Estetika Motif Patchwork Pada Dress," *Universitas Negeri Jakarta*, 2025.

¹¹ P. Anggraini, & Mayang, "Pemanfaatan Limbah Perca Pada Pengembangan Busana Ready To Waer Menggunakan Teknik Patchwork," *Jurnal Bosaparis : Pendidikan Kesejahteraan Keluarga* 14 (2023): 19–29.

¹² F. Khadijah, S., Imelda, D., & Rahmat, "Puzzle In Modest Waer," (*Jurnal Penelitian Busana & Desain*) 05, no. 01 (2025): 9–20.

small pieces of patchwork fabric that are easy to apply to various shapes and types of clothing, including bustiers and peplums.

Bustier and peplum were chosen because they are both fashions that can evolve following trends. Along with the development of fashion trends, bustiers are not only combined as a complement to kebaya or dresses, but are now used as outerwear or outerwear¹³. Peplums are fashion models that are always trending, with a variety of shapes ranging from blouses to waist models or resembling small skirts with circular, wrinkled or folded shape¹⁴. Based on these findings, bustiers and peplums in this study were chosen as clothes that can be applied with the puzzle-shaped patchwork technique optimally, so that small pieces of batik patchwork fabric can be reused while producing aesthetic designs, selling value, and supporting the concept of sustainable fashion.

In accordance with the above study, this study aims to explain the process of making bustier and peplum by applying the puzzle-shaped patchwork technique and to describe the results of the feasibility analysis carried out on bustier and peplum by applying the puzzle-shaped patchwork technique. The feasibility of bustier and peplum in this study used indicators of design, size, sewing technique, aesthetics, fashion performance, and fashion specialties. The selection of these indicators is in accordance with the theory that explains that design is judged through elements of color, lines, shapes or silhouettes, the selection of materials, proportions and the center of attention that produce aesthetics in fashion¹⁵. Good design is produced based on design principles and elements in the form of shapes, lines, colors, and textures¹⁶.

Size is a technical indicator that is directly related to body comfort and proportion, including the accuracy of circumference and length, size balance, pattern accuracy, and fabric fall¹⁷. This is in line with the statement that the size set can adjust the shape of the body, in order to produce suitable clothing¹⁸. Fashion construction is assessed through sewing technique indicators that reflect the quality of workmanship, including seam neatness, joint strength, finish, shaving technique and zipper installation, to ensure that the clothing not only has aesthetic value, but also has strong construction and good durability¹⁹. In line with the statement that sewing techniques are seen from the technical aspect, namely, the process of connecting clothing components, durability, neatness of seams and clothing structure²⁰. Aesthetics describes the level of success of the design in creating harmony and attractiveness, in line with the statement that aesthetics are judged from the aspect of the unity of design elements, visual balance, suitability of texture and decoration, combination of details and ornaments to see the beauty and visual of fashion²¹.

Performance shows how the function and impression of the fashion is when worn. This assessment includes the stability of shape, proportion, ease of use, suitability of character with the concept, and an elegant and professional impression that reflects the function and comfort of the

¹³ L. Eka Hari Purnami, "Pengembangan Buster Berbasis Sustainable Fasion Dengan Memanfaatkan Limbah Perca Endek Menggunakan Teknik Anyaman," (*Doctoral Dissertation, Universitas Pendidikan Ganesha*)., 2025.

¹⁴ B. A. Adiarti, "Alat Evaluasi Pembuatan Pola Peplum Pada Busana Pesta Wanita," *Doctoral Dissertation, Universitas Pendidikan Indonesia*)., 2019.

¹⁵ P. A. Anggraini, R., Widiartini, N. K., & Mayuni, "Pengembangan Hiasan Busana Pesta Anak Dengan Recyle Kain Perca," *Jurnal Bosaparis: Pendidikan Kesejahteraan Keluarga* 13, no. 3 (2022): 139–49.

¹⁶ S. Hidayanti, N., Sukerta, M. P., Supriyanto, E., & Pamardi, "Analisis Konsep Desain Pada Pembelajaran Desain Busana," *Jurnal Desain* 11, no. 1 (2023): 159–70.

¹⁷ Mahbubah, R. L., & Wening, "Pentingnya Kelayakan Produk Untuk Mendukung Minat Beli Ulang Busana Muslimah Ready to Wear Oleh Konsumen Barokah Putra Collection Tegal," *Prosiding Pendidikan Teknik Boga Busana* 17, no. 1 (2022).

¹⁸ Khadijah, S., Imelda, D., & Rahmat, "Puzzle In Modest Waer." (*Jurnal Penelitian Busana & Desain*) 05, no. 01 (2025): 9–20.

¹⁹ M. D. Vera, G. Suartini, Sudirtha, I. G. & Angendari, "Penerapan Hiasan Payet Pada Busana Pesta Berbahan Batik Bali Motif Merak Abyorhokokai," *BOSAPARIS: Pendidikan Kesejahteraan Keluarga* 12, no. 3 (2021): 88–96.

²⁰ M. A. Juli, P. I. P., Gede I Sudirtha, & Diah, "Pengembangan Busana Pesta Dengan Sumber Ide Tradisi Aci Tabuh Rah Pengangon," *Jurnal Bosaparis : Pendidikan Kesejahteraan Keluarga* 14, no. 1 (2023): 29–30,

²¹ M. Putri, d. n., Nofitasari, D., Yuwono, T., & Asbari, "Pengaruh Kelayakan Produk Dan Kelayakan Pelayanan Terhadap Kepuasan Pelanggan," *Jurnal of Comunication Education* 15, no. 1 (2021).

outfit²². This statement is in line with the view that the quality of tailoring and construction play an important role in fashion performance so that it meets functional and comfort aspects²³. The uniqueness and added value of fashion is seen from the indicators of speciality through creativity of ideas, shape innovation, exploration of materials, harmony, and fashion identity²⁴. Other research said that the perception of design and visuals includes not only aesthetic aspects, but also meanings, symbols, and identities that make up the uniqueness of a work²⁵.

METHOD

This study uses a quantitative descriptive approach that aims to explain the manufacturing process and analyze the feasibility level of bustier and peplum with a puzzle-shaped patchwork technique. This approach was chosen because the research focuses on collecting and analyzing numerical data to objectively describe the feasibility level of the product. Quantitative descriptive research is used to obtain data and information through the presentation of numbers which includes the process of collecting data, analyzing, and presenting research results systematically²⁶, resulting in structured and easy-to-interpret numerical data ²⁷.

This research involves 5 expert panelists who have competence and experience in the field of fashion and fashion design, consisting of lecturers and fashion practitioners. This research also involved 20 trained panelists, namely students who have passed the Women's Fashion Production and Adi Busana Production Courses, so that they are considered to have adequate understanding and skills in assessing the feasibility of the clothes produced. The determination of the research subject was carried out by considering the competence and relevance of the panelists' background to the research objective, namely assessing the feasibility of bustier and peplum with a puzzle-shaped patchwork technique.

The fashion feasibility research instrument was prepared based on six indicators, namely design, size, sewing technique, aesthetics, fashion performance, and specialties. Each indicator has 5 questions, so the entire instrument consists of 30 assessment items. Each item is assessed using six assessment rubrics that represent various aspects of fashion eligibility, so that one item is not assessed individually, but through several interrelated aspects. In detail, the description of the instruments used in this study is summarized in the grid table as follows:

²² I. W. Supraeni, N. L., & Suwendra, "Pengaruh Harga, Kelayakan Produk Dan Kepercayaan Terhadap Keputusan Pembelian Fashion Secara Online Pada Mahasiswa Pendidikan Ekonomi, Universitas Pendidikan Ganesha," . . *Ekuitas: Jurnal Pendidikan Ekonomi* 11, no. 2 (2024): 279–87.

²³ D. E. Altay, P., Çelikkanat, T. O., Evren, A. & Koçak, "Influence of Different Sewing Parameters on the Seam Quality of Cotton Sateen Fabric," *Journal of Textile Engineering & Fashion Technology* 10, no. 1 (2024): 11–16,

²⁴ M. Putri, d. n., Nofitasari, D., Yuwono, T., & Asbari, "Pengaruh Kelayakan Produk Dan Kelayakan Pelayanan Terhadap Kepuasan Pelanggan," *Jurnal of Comunication Education* 15, no. 1 (2021).

²⁵ I. D. Elvera, S. P., Ratri, A. P., Nurkholifah., & Pratiwi, "Fashion Design Perception: AComparative Study of Manual and Digital Methods," *Jurnal Wawasan Dan Aksara* 5, no. 1 (2025).

²⁶ E. L. Rahmadiani, Y., Wesnina, W., & Zahra, "Preferensi Konsumen Pada Citra Fashion," *Practice of Fashion and Textile Education Journal* 3, no. 1 (2023): 17–22.

²⁷ A. Awalinah Nadiyah, N., ', syuhada, & Munir Hamid, "Pengaruh Fast Fashion Dan Pergaulan Terhadap Gaya Hidup Modern Mahasiswa Universitas Islam Darul Ulum Lamongan," *Jurnal Murid* 1, no. 1 (2024): 12–25.

Kelayakan Busana Pesta	Indikator	Sub Indikator	No Butir
Desain, tekstur, teknik jahit, keseimbangan bentuk, hasil jadi busana (Anggraini et al., 2022)	Desain (Anggraini et al., 2022; Juli et al., 2023; Marbubah & Wening, 2022; Supraeni & Suwendra, 2024; Vera et al., 2021)	1) Color; 2) Lines; 3) Shape / Silhouette; 4) Proportions; 5) center of attention	1 - 5
Desain, bahan busana, standar ukuran busana, standar jahitan, label (Marbubah & Wening, 2022)	Ukuran (Marbubah & Wening, 2022)	1)Circumferential size accuracy; 2)Length measurement accuracy; 3)Balance of size; 4)Pattern accuracy; 5)Fabric fall/collapse	6 - 10
Desain, Tekstur dan warna, bentuk, tampilan pendukung, teknik jahit, hasil akhir (Juli et al., 2023)	Teknik Jahit (Anggraini et al., 2022; Juli et al., 2023; Marbubah & Wening, 2022; Vera et al., 2021)	1)Neatness of the seams; 2)Finishing; 3)Connection strength; 4)Decorative techniques; 4)Zipper installation	11 - 15
Desain, Hasil jadi, tekstur dan warna, teknik jahit, tampilan pendukung(Vera et al., 2021)	Estetika (Putri et al., 2021)	1)Unity of design elements; 2)Visual balance; 3)Texture suitability and ecoration; 4)Combination of details and ornaments; 5)Visual appeal	16 - 20
fitur produk, kualitas kesesuaian, ketahanan dan desain (Supraeni & Suwendra, 2024)	Performa	(Putri et al., 2021) 1)Fit and proportions; 2)Shape stability Ease of use; 3)Character and theme suitability; 4)Elegant; 5)professional effect	21 - 25
Performa, keistimewaan tambahan, kehandalan, konformitas, daya tahan, kemampuan pelayanan, estetika, kualitas yang dipersepsikan (Putri et al., 2021)	Keistimewaan tambahan (Putri et al., 2021)	1)Creativity of ideas; 2)Shape innovation; 3)Exploration of materials; 4)Harmony of the results of exploration; 5)Design identity	25-30

Figure 1. Grid Table – Fashion Feasibility Chart

Before being used in data collection, the assessment instrument is first tested for validity to ensure that each statement item has represented an indicator of fashion eligibility. The validity used in this study is the validity of the content, namely the validity used to measure the level of agreement of validators with the instrument has²⁸.

The validity test was carried out by 7 expert validators who have competence in the field of fashion and fashion design. Validators are asked to provide an assessment of the level of relevance of each statement item using an assessment scale of 1-5. The data from the validator's assessment is then assessed using the Aiken's V index with the following formula:

$$V = \frac{\sum s}{n(c-1)}$$

Sources: Surmayanta (2021:20)

Description:

V = Aiken validity index

S = r – lo

r = Score obtained by validator

lo = Highest score on the rating scale

n = Number of valdators

The interpretation criteria for each item in this study stipulate that Aiken's V is declared valid if the coefficient $V \geq 0.75$ with a probability of 0.4129. The results of proving validity using the Aiken's V formula obtained a Vcal value from the 30 items of the statement ≥ 0.75 , so that it is stated that all items are declared valid.

The reliability of the instrument was analyzed using the Intraclass Correlation Coefficient (ICC). The reliability test was carried out to determine the level of consistency of the assessment between raters on all instrument items. The results of reliability calculations are presented in Table 2.

²⁸ Surmayanta, *Model Pengembangan Tes* (CV. Confident (Anggota IKAPI Jabar), 2021).

²⁹ W. Prasetyaningtyas, Widiastuti., and E. Istiyono, *Development of Learning Outcomes Assessment Instruments for Fashion Technology Courses* (Atlantis Press SARL, 2024).

Table 1. Intraclass Correlation Coefficient

	Intraclass Correlation ^b	95% Confidence Interval		F Test with True Value o			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measure	.926 ^a	.835	.948	45.365	29	174	.000
Average Measure	.978 ^c	.956	.972	45.365	29	174	.000

The stability of the instrument was calculated using the efficiency of the Intraclass Correlation Coefficient (ICC), with the results of the analysis summarized in Table 1. The ICC Average Measure value of 0.978 with a significance level of 0.000 is in the category of very high reliability, while the ICC Single Measure value of 0.926, indicates an excellent level of reliability. Interpretation based on the analysis of the instruments used to analyze the suitability of the fashion showed that the ICC value was in the range of 0.75 to 1.00, which reflects an excellent level of estimation³⁰. These results indicate that the assessment instrument has a strong internal consistency and is reliable for measuring the feasibility of bustier and peplum.

Data collection uses observation sheets filled out by expert panelists and trained panelists. Each panelist was asked to observe firsthand Bustier and Peplum with techniques patchwork Shape Puzzle which is the object of research, then gives an assessment on each item according to the available assessment scale. The assessment process is carried out in a structured manner so that all panelists assess the objects in the same conditions, so that the data obtained can represent the quality of fashion from the perspective of practitioners who have expertise in the field fashion and design, as well as students as trained panelists who already have relevant academic knowledge and experience.

Data analysis was carried out using excel to determine the average percentage of the eligibility level of the indicator. The percentage of eligibility is calculated by referring to the percentage calculation in the previous research book which compares the score obtained with the ideal score and then multiplied by 100%³¹. Then the value of the feasibility analysis results can be presented in the form of tables, graphs, calculations of average values, means, modes, and medians to facilitate data interpretation³². To determine the descriptive type of percentages generated by each indicator are described in the feasibility category as shown in Table 2.

Table 2. Eligibility Categories

No	Percentage	Categories
1.	85% – 100%	Highly Worth It
2.	69% – 84%	Worthy
3.	45% – 68%	Quite Decent
4.	37% – 52%	Less Worthy
5.	20% – 36%	Very Unworthy

RESULT AND DISCUSSION

Manufacturing Process

Bustier and Peplum Design with Puzzle Shape Patchwork Technique

Moodboard Creation

The initial process in making bustiers and peplums in this study began with the creation of a mood board that serves as a reference in determining the design concept, shape, color, aesthetics, and nuances that are determined³³. The moodboard developed in this study features elements of puzzle shapes, white base colors, batik patchwork fabrics, bustier and peplum models, as well as decorative

³⁰ S. Prasetyaningtyas, W., Wening, "Needs Analysis to Develop a Practice Assessment Instrument for Learning Process During Covid-19 Pandemic," *Atlantis Press* 640, no. Iccie (2022): 307–11.

³¹ Sugiyono, "Metodologi Penelitian Kuantitatif, Kualitatif Dan R & D" Alfabeta Bandung, (2020).

³² S. Ghaniy, R., & Leksono, "The Application of the Internet of Things for Home Lighting Control via Telegram Chat," *Tech: Scientific Journal of Information Technology and Science* 13, no. 1 (2023): 32–34.

³³ A. Kamandanu, "Proses Penciptaan Karya Seni Rupa Dan Desain," *Penerbit YLGI*, 2020.

elements that support the concept of sustainable fashion.

The puzzle shape in this study was chosen as a source of inspiration because of its unique shape and can be used to unite pieces of patchwork fabric into one fashion design that is untouchable and useful. This is in line with the concept of sustainable fashion which emphasizes the reuse of patchwork waste, the use of environmentally friendly materials, and production processes that do not damage the environment³⁴. The batik patchwork displayed on the moodboard represents a diversity of motifs and colors, which when put together are able to create a unique and aesthetic new look, so that the moodboard not only acts as a visual inspiration, but also as an overview of the sustainable concept that wants to be realized in the design of the bustier and peplum.

Moodboard is the foundation in determining the direction of bustier and peplum design, from silhouette selection to the application of patchwork techniques. The choice of white on the moodboard is used as the basic color, because white is a neutral color when combined with any color. The combination of colors, shapes, and textures of batik fabric contained in the moodboard affects the final appearance of the clothing, resulting in a visual, attractive appearance, and giving a sweet but harmonious impression³⁵. The decorative elements displayed also reinforce the eco-friendly design character, as they reuse the same fabric in the process of making bustiers and peplums, so that it fits the concept that has been established from the beginning.



Figure 2. Moodboard

Design Making

The process of making designs in this research is realized based on references to the previously designed moodboard. The selection of A-line silhouettes in the bustier and peplum designs aims to give a proportional and elegant impression to the fashion. A-line silhouettes are found in various types of clothing with a wider bottom compared to the shoulders, chest, or waist³⁶. The character of the silhouette allows for the creation of a visual balance between the top and bottom of the garment. A-line silhouettes are also considered safe for various body shapes because they are able to manipulate visual views so that they can cover up flaws in certain body parts³⁷. The bustier serves as the main focus of the top, while the asymmetrical peplum on the bottom adds aesthetic value and visual variety to the design. The asymmetrical shape was chosen to reinforce the modern impression and depict the non-uniform arrangement of the fabric pieces, in accordance with the concept of puzzle-shaped patchwork.

The use of a combination of batik patchwork, dioamond fabric, and organza fabric was chosen to create a balance between motifs, colors, and textures of materials. This is in line with the opinion that the design is designed based on several arrangement of colors, shapes, textures, sizes, and lines

³⁴ S. Panjaitan, R. O., Damanik, D. N. N. D., Sitepu, M. P., Maulana, I., Nawawi, M. R., & Maulana, "Pemanfaatan Limbah Tekstil: Kain Perca Sebagai Material Utama Untuk Produk Fashion Berkelanjutan," *Journal on Education* 7, no. 1 (2024): 7085–90.

³⁵ Z. Genova, K. Llieva, J. Ruseva, I. Doble, L. Bohm, G., & Zlatev, "Exploring the Attractiveness of Combinations of Natural Colors and Contemporary Shapes in Fashion Design," *Communications in Development and Assembling of Textile Products* 4, no. 2 (2023): 273–83.

³⁶ A. M. Sunarko, C. V., Rizali, N., & Falah, "Perancangan Wedding Gown Zero Waste Dengan Teknik Draping," *ATRAT: Jurnal Seni Rupa* 10. no. 1 (2022): 34–42.

³⁷ E. Hidayah, M. N., & Budiastuti, "Pembuatan Busana Pesta Dengan Lengan Pointy," *Corak* 14, no. 1 (2025): 73–82.

that become an attractive and harmonious unit between one part and another³⁸. Batik patchwork plays a role as the main element that highlights the concept of sustainable fashion, while diamond fabric is chosen because it can balance the color of the patchwork fabric and give a strong structural appearance to the bustier. Organza fabric is used as an accent to add a light, modern impression that blends in with the bustier. The resulting design becomes a guideline in the process of making bustiers and peplums with a puzzle-shaped patchwork technique, so that each manufacturing process remains in harmony with the initial concept and design that has been set³⁹.



Figure 3. Final Design of the Bustier and Peplum

The Process of Making Bustier and Peplum with Puzzle Shape Patchwork Technique

The process of making bustiers and peplums with puzzle-shaped patchwork techniques is carried out through several systematic processes, starting from the preparation of tools and materials to the finishing stages. Each stage is carried out sequentially to ensure that the fashion results are in accordance with the design and concept that has been set.

Tools

The tools used in the process of making bustiers and peplums include meters, pattern papers, pattern rulers, fabric and thread scissors, hand sewing needles, machine needles, bounce needles, pendants, chicken eye pliers, snap buttons, mannequins, sewing machines, and irons. The constant use of tools aims to support precision and neatness in the fashion making process.

Ingredients

The selection of materials is an important aspect of the process of making bustiers and peplums because it impacts the aesthetic, functional value and suitability of the work with the set concept. The materials used in this study consist of batik patchwork fabric with various motifs and sizes as the main material, plain white diamond fabric as a combination material, and organza fabric. The selection of materials is adjusted to the concept of sustainable fashion and the design character of the bustier and peplum designed.

Batik patchwork was chosen as the main material with a total use of ± 1 kg consisting of various motifs and sizes. The use of batik patchwork as the main material is carried out as an effort to reuse patchwork waste in line with the principles of sustainable fashion. The use of batik patchwork as the main material is in accordance with the findings that the use of leftover fabric or pieces of fabric can reduce fabric waste and has functional and aesthetic value⁴⁰. Plain white diamond fabric is used as a combination material with a total use of 1 meter. The choice of neutral colored fabric aims to balance the color composition and motif of batik patches, so that the design appearance becomes more

³⁸ I. Mahmud, V., A., N., & Prihatina, Y., "Penerapan Teknik Bordir Kombinasi Quilting Motif Daun Ketela Pada Blus Batik Pecelan Khas Madiun," *BAJU: Journal of Fashion & Textile Design Unesa* 4, no. 1 (2023): 18–27.

³⁹ Khadijah, s., Imelda, D., & Rahmat, F., "Puzzle In Modest Waer," (*Jurnal Penelitian Busana & Desain*) 05, no. Maret (2025): 9–20.

⁴⁰ Anggraini., & Mayang, "Pemanfaatan Limbah Perca Pada Pengembangan Busana Ready To Waer Menggunakan Teknik Patchwork." *Jurnal Bosaparis :Pendidikan Kesejahteraan Keluarga*, 14 (2023) 19-29.

balanced and does not seem excessive. Combining plain fabrics with patterned fabrics is a common strategy applied in fashion design to create visual aesthetics and harmony. In line with previous research which said that visual balance in fashion emphasizes the harmony of colors, textures, balance of motifs, and rhythms so as to create harmonious clothing⁴¹.

Meanwhile, organza fabric was chosen as an accent with a total use of 1 meter. The organza fabric was chosen to add a light, modern and elegant feel to the bustier and peplum. The transparent texture of organza fabric provides an attractive look when combined with batik patchwork fabric and diamond fabric. In line with the statement in another study that said that the use of batik fabric materials combined with organza fabric gives a good look and does not look ordinary⁴². In accordance with the description, the combination of batik patchwork, diamond fabric, and organza fabric provides an attractive aesthetic appearance, harmonious visual harmony, and strengthens the design connection with the principles of sustainable fashion.

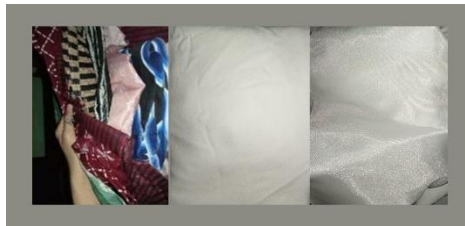


Figure 4. Fabric a) Katun b) Diamond c) Organza

Taking Measurements

Taking measurements is very important in the process of making bustiers and peplums because it has a direct effect on the accuracy of the pattern results, comfort, and the final result of the fashion. The size applied is used as a reference to make a pattern that matches the shape of the body to the clothes made⁴³. The size used in this study is the standard size of M to produce clothes with balanced proportions. Size accuracy is an important factor in determining the shape and comfort of clothing when worn⁴⁴. The type of size applied can be seen in Table 3.

Table 3. Size Type Table

No	Size Type	Size Results
1.	Body Circumference	94 Cm
2.	Waist Circumference	72 Cm
3.	Face length	34 Cm
4.	Face Width	34 Cm
5.	Chest height	14 Cm
6.	Side length	18 Cm
7.	Back length	37 Cm
8.	Back width	36 Cm
9.	Pelvic circumference	96 Cm
10.	Pelvic height	Cm

Creating a Bustier and Peplum Pattern

The process of making bustier and peplum patterns in this study begins with the creation of an archetype as a foundation in creating patterns according to the design design. The baseline is based on a predetermined standard size of M, using a 1:1 scale. The application of the basic pattern with a scale of 1:1 aims to obtain the initial shape of the clothing that is proportional and in accordance with the

⁴¹ L. Hale, E., Roueche, J., & Shirley, "Principles of Design," *Elements & Principles OF Design* 23, no. 5 (2019): 231.

⁴² Mahmud, V., A., N., & Prihatina, Y., "Penerapan Teknik Bordir Kombinasi Quilting Motif Daun Ketela Pada Blus Batik Pecelan Khas Madiun."

⁴³ Khadijah, S., Imelda, D., & Rahmat, "Puzzle In Modest Waer". (*Jurnal Penelitian Busana & Desain*) 5, no. 1(2025) 9-20.

⁴⁴ S. Mahbubah, R. L., & Wening, "The Importance of Product Quality to Support the Interest in Repurchasing Muaslimmah Ready-to-Wear Clothing by Barokah Putra Collection Tegal Consumers," *Proceedings of the Educational Procedure of Fashion Engineering* 17, no. 1 (2022).

body size, thus facilitating the development of the design at the next stage⁴⁵.



Figure 5. Bustier and Peplum Archetype

Whether the resulting clothes are good or not is greatly influenced by the suitability and correctness of the pattern made ⁴⁶, therefore, the development of the pattern is carried out in accordance with the design of the bustier and peplum that has been designed. The process of breaking the bustier pattern was developed by applying the Paris system with precise pattern results, fits well on the body, and produces stable construction⁴⁷. The development of the bustier pattern was carried out on the chest and waist, with the kupnat and the bustier panel line made using a pistol ruler (French curve) to hail a neat and smooth kupnat line. The development of the pattern is carried out according to the formula in the paris system pattern, so as to produce a pattern that is in accordance with the design. Breaking the pattern on the front and back is done by applying a princess line that is drawn vertically from the center of the hollow to the bottom past the waistline, resulting in a pattern of middle of the face (TM), middle back (TB), and front and back sides. The application of the princess line aims to provide an elongated effect, form a body silhouette, and can be an ornamental line in clothing⁴⁸.

The top peplum pattern is broken down to create volume and a puffy impression according to the design. The length of the peplum pattern is determined by measuring the waistline down 21 cm, then broken into eight parts consisting of the middle of the front and middle of the back, with a distance between the pattern breaks of 8 cm. This pattern break aims to produce tassel that gives a dynamic impression, as well as a three-dimensional appearance on the peplum. In line with the statement that the peplum consists of various models ranging from the usual look, folds on one side and tassel that gives a three-dimensional look when combined with various clothes⁴⁹, so the application of the right peplum pattern break is an important factor to produce a look that is in accordance with the design and proportional.



Figure 6. Bustier and Peplum Pattern Top

Meanwhile, figure 7 shows the breakage of the lower peplum pattern with an asymmetrical shape according to the design. The asymmetrical peplum model was chosen because it is able to provide aesthetic value and create its own characteristics in the fashion⁵⁰. The asymmetrical pattern rupture is carried out by determining the different length of the peplum on the right and left sides, the paik in the middle of the face and middle of the back. The length of the right side of the peplum is measured

⁴⁵ Khadijah, S., Imelda, D., & Rahmat, "Puzzle In Modest Waer." (*Jurnal Penelitian Busana & Desain*) 5, no. 1(2025) 9-20.

⁴⁶ Salsabila, S., & Marniati "Pecah Pola Busana Pengantin Jombang Putri Arimbi Berkerudung (Busana Pengantin Jombang Muslim)," *Jurnal Penelitian Busana & Desain* 2, no. 1 (2022): 79–90.

⁴⁷ E. W. N Hidayah, "Application of the French Pattern Construction System To," *Jurnal of Creativity Students* 8, no. 2 (2025): 33–46.

⁴⁸ Wulandari, R. S., & Yusmerita "Perbandingan Hasil Penyaluran Kup Sisi Menjadi Garis Princess Melalui Slash Method Dan Pivot Method Pada Pola Dasar Dressmaking Busana Wanita," *Edutech* 24, no. 2 (2025): 1256–66.

⁴⁹ Petya Dineva, "Investigating Sustainable Design of 3D Peplum Clothes," *AIP Conference Proceedings* 2889, no. 1 (2023).

⁵⁰ Adiarti, "Alat Evaluasi Pembuatan Pola Peplum Pada Busana Pesta Wanita." (*Doctoral dissertation, Universitas Pendidikan Indonesia*) 2016.

from the waistline of 23 cm, while the left side of the tread is 33 cm. This difference in length aims to create visual elegance that strengthens the character of the design, as well as gives the effect of movement and dimension to the clothes when worn.



Figure 7. Lower Peplum Pattern

Create puzzle patterns

The puzzle pattern is made based on the size that has been set and is a characteristic in this study. The pattern is designed as an effort to present a unique fashion appearance that is different from fashion in general⁵¹, as well as a solution to optimize the use of patchwork, especially small patchwork (5 – 15 cm). The puzzle pattern was made with 2 sizes, namely the first size with a width of 4 x 4.5 cm, and a length direction of 4.5 x 4 cm, and the second size with a width of 4.5 x 4 cm, and a length direction of 4 x 4.5 cm. The uniqueness of this puzzle pattern is an added indigo in terms of creativity and design innovation

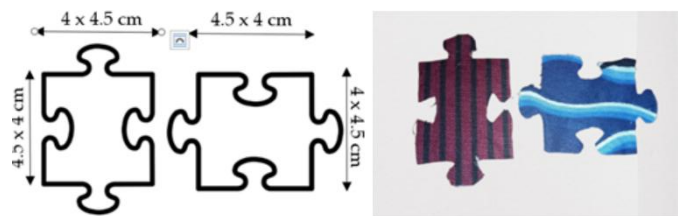


Figure 8. Size and Shape of the Puzzle

Putting Puzzle Pieces Together with Filsufix

The puzzle pieces that have been cut according to the pattern are arranged and put together on a flat surface as an initial stage before the application of the patchwork technique. The preparation is carried out by considering the harmony of the shape, motif, and color of the batik patchwork fabric in order to create a harmonious composition even though it is arranged randomly⁵². To prevent the pieces from shifting during the sewing process, filsufix is used as a temporary adhesive to fasten the joints⁵³. Filsufix is glued to the back of the piece of fabric using an iron. This process produces puzzle-shaped sheets of fabric that are tailored to the needs.



Figure 9. Puzzle Pieces With Philosophers

⁵¹ Khadijah, S., Imelda, D., & Rahmat, "Puzzle In Modest Waer." (Jurnal Penelitian Busana & Desain) 5, 01 (2025), 9-20.

⁵² A. M. Ummah, N. H., & Falah, "Eksistensi Teknik Patchwork Serta Penerapannya Pada Produk Fashion," *ATRAT: Jurnal Seni Rupa* 11, no. 1 (2023): 111–18.

⁵³ A. E. Aziz, F. J., & Karyaningrum, "Pengaruh Ketebalan Woven Fusible Interfacing Terhadap Kualitas Produk Lengan Spiral Pada Blus Berbahan Taffeta," *Jurnal Online Tata Busana* 08, no. 1 (2019): 29–38.

Application of Patchwork Techniques

The patchwork technique is applied to unite pieces of batik patchwork in the shape of a puzzle that have been arranged beforehand. The joining process is carried out by a zigzag sewing technique on each joint between pieces with a stitch distance of 1 mm, which serves to strengthen and prevent the edges of the fabric from decomposing. The zigzag sewing technique was chosen because it is able to clarify the connection lines so that the shape of the puzzle remains more assertive and becomes the main aesthetic element that adds a unique touch to the fashion design⁵⁴. The result of the application of this patchwork technique results in a strong, neat fabric field that has a distinctive visual character, thus supporting the feasibility of construction and reinforcing the aesthetic value and design concept of the bustier and peplum produced. The description above is in line with the statement that the patchwork technique is one of the applications that stands out because it has aesthetic value and use value when applied to clothing⁵⁵.



Figure 10. Patchwork Technique (Zigzag)

Cutting Materials

The material cutting process is carried out by placing a bustier and peplum pattern on the surface of the fabric that has been spread evenly to ensure the accuracy of the actual shape and size⁵⁶. Pattern cutting is carried out starting from the main material, coating material, and furing using cloth scissors. The layout of the pattern is adjusted to the type of material to be used according to the design. The bustier pattern in the middle of the face, middle back, and the peplum pattern at the bottom are placed on a plane of puzzle-shaped fabric that has been put together with a patchwork technique. This placement aims to highlight the puzzle-shaped patchwork motif as the main visual focus of the fashion. Meanwhile, the bustier side pattern on the front and back is cut over the diamond fabric to give the bustier a strong structure.

The upper peplum pattern that blends with the bustier is cut on the organza fabric, to create a lightness and contrast. The pattern is cut after the position of the poal layout fits, the stitching marking, and the provision of the collar used, where the sides are 2 – 2.5 cm, the hollow is 1.5 cm, the hem is 3 - 4 cm, and the zipper collar is 3 - 4 cm⁵⁷. The result of this material cutting process is a precise, balanced, and ready-to-assemble piece of clothing, and supports the harmony between design, patchwork techniques and the character of the material used. In line with the statement that the right pattern cutting affects the results of the fashion by paying attention to the giving of the village, as well as the marking on the material that has been cut⁵⁸.



Figure 11. Bustier and Peplum Pieces

⁵⁴ V. Fories, "Zigzag Tailoring Technique: A Combination of Precision and Creativity," *J Fashion Technol Textile* 12 (2024): 6.

⁵⁵ Anggraini., & Mayang, "Pemanfaatan Limbah Perca Pada Pengembangan Busana Ready To Waer Menggunakan Teknik Patchwork." (*Jurnal Bosaparis : Pendidikan Kesejahteraan Keluarga*), 14 (2023), 19-29.

⁵⁶ & Yulistiana Al Baja, R. A., "Inspirasi Perang Pada Kerajaan Kutai Kertanegara Dalam Penciptaan Busana Pesta," *Penelitian Busana Dan Desain* 5 (2025): 1–12.

⁵⁷ D. Purbaningsih, "Busana Pesta Malam Muslimah Untuk Remaja Dengan Sumber Ide Tongkol Jagung Dalam Pergelaran Busana Authenture," *Universitas Negeri Yogyakarta*. 37, no. 2 (2016): 10–14.

⁵⁸ Hidayah, M. N., & Budiastuti, "Pembuatan Busana Pesta Dengan Lengan Pointy." *Corak*, 14. 1, (2025), 73-82"

Lining and interfacing

The provision of lining and interfacing is carried out as an important step to improve the feasibility of the structure and the comfort of the bustier and peplum. In the bustier, mori gula is used as a coating, to give a strong impression so that the bustier is able to support the body shape with a sturdy silhouette and good stitching quality⁵⁹. The use of sugar mori helps to strengthen the construction of the bustier without compromising the comfort of wearing. Meanwhile, the peplum is coated with cotton fabric, which serves to add comfort, smooth the inside of the outfit, and help the peplum fall more neatly and stably. The application of lining and interfacing has a direct effect on the final result of the fashion because it gives shape and strengthens the appearance of the clothing⁶⁰, so that it is in accordance with the design character of the bustier and peplum that has been designed.

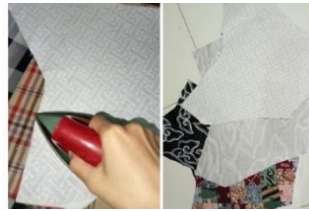


Figure 12. Puzzle Pieces and Peplum Bottom

Bringing together the bustier and peplum pieces

The sewing process is carried out in stages to ensure the accuracy of the shape and neatness of the fashion construction, using a fine sewing technique with an open kampuh and a soom finish. The sewing process is carried out to unite each piece of clothing to produce the final look of the fashion according to the design⁶¹. To produce neat stitches, each sewing process is immediately ironed (Presshing)⁶². The process of sewing and finishing the bustier and peplum is as follows:

Sewing a Bustier

1. Sewing princess sides and lines on main material and furing
2. Sewing ballen on furing material
3. Combine the top of the main piece of material with the furing leaving a 0.3 mm gap, then press the good part of the furing with a distance of 0.5 mm.
4. Attaching the bra cup in the predetermined position
5. Combining a bustier and peplum organza material, sewn around the waist.
6. Tidying up the seam field
7. Sewing the center of the back of the bustier
8. Sewing peplum hem organza material
9. Stitching the soom on the required part



Figure 13. The process of sewing a Buster

⁵⁹ K. Chairunnisa, P. R. A., & Astriatun, "Analysis of the Use of Interfacing Types on the Quality of Vests," *Home Economics Journal* 8, no. 2 (2024): 59–71.

⁶⁰ Khadijah, S., Imelda, D., & Rahmat, "Puzzle In Modest Waer." (*Jurnal Penelitian Busana & Desain*) 5, 01 (2025), 9-20

⁶¹ Arifah Umi Salamah, "Busana Pesta Malam Untuk Wanita Remaja Dengan Sumber Ide Tari Ronggeng Blantik Dalam Pergelaran Busana Tromgine," *Universitas Negeri Yogyakarta.*, 2019, 74–86.

⁶² Purbaningsih, "Busana Pesta Malam Muslimah Untuk Remaja Dengan Sumber Ide Tongkol Jagung Dalam Pergelaran Busana Authenture." *Universitas Negeri Yogyakarta.* 37, no. 2 (2016): 10–14.

Sewing the Bottom Peplum

1. Sewing the lower peplum side of the main material and furing
2. Kampuh ironed open
3. Combine the main material and the furing material by sewing around the bad part of the material leaving an opening of about 10 -15 cm as a path to flip the peplum to the good side.
4. Trim the peplum by ironing and sewing the soom on the opening.



Figure 14. The process of sewing a Peplum

Decoration and Finishing

The final process in making bustiers and peplums is the decoration and finishing that plays a role in perfecting the look and use⁶³. Then give soom stitching to certain parts, so as to give a strong construction and maintain the neatness of the edges of the garment. The process of decorating and finishing is very important because it is the final process to add attractiveness and complement to the clothes before use⁶⁴.

The installation of a *corset back* on the back of the *bustier* serves to provide size flexibility and support comfort of wear, while the installation of a *snap button* on the *peplum* acts as a practical and functional opening system. The installation of *corset back and snap buttons on the butcher and peplum is applied as an opening and closing*⁶⁵. The naming of ropes and ribbons as complementary decorations is carried out to strengthen the neat, comfortable, and aesthetic final look, and is ready to be used according to the design concept that has been planned.



Figure 15. Bustier and Peplum Finish

In accordance with the description of the process of making bustiers and peplums that has been carried out, it can be concluded that the making of bustiers and peplums with a puzzle-shaped patchwork technique is produced through a planned and systematic process. Every process, from the preparation of tools and materials, taking measurements, making patterns, applying puzzle shapes and patchwork techniques, to the final stages and finishing support each other in producing good construction, aesthetic value and fashion uniqueness. This process is carried out by paying attention to the quality of the materials and sewing techniques applied in order to increase the feasibility of the

⁶³ S. C. Handayani, "The Realization of the 'Ardhana Paramitha' Gown Design," *Jurnal of Creativity Students* 8, no. 2 (2025): 273–86.

⁶⁴ M. Z. Anggarani, R. K., & Umami, "Busana Pengantin Wanita Modifikasi Kebaya Dari Indonesia Dan Lehenga Dari India Modified Bridal Dress Kebaya from Indonesia and Lehenga from India," *Jurnal Ipteks Tata Boga, Tata Rias, Dan Tata Busana* 13, no. 1 (2021): 1–23.

⁶⁵ M. Anburika, N., & Yuniati, "Pembuatan Bustier Dan Analisis Hasil Jadi Bustier Di Butik Alben Ayub Andal," *JPBD (Jurnal Penelitian Busana Dan Desain)* 3, no. 2 (2023): 47–56.

clothing⁶⁶.

Feasibility Analysis Results

This study aims to determine the feasibility level of bustier and peplum with a puzzle-shaped patchwork technique based on the assessment of expert panelists and trained panelists on six assessment indicators. The results of the panelists' assessment were analyzed in the form of percentages and presented in table 4 of the feasibility analysis. Based on the table, a comprehensive picture of the feasibility level of the bustier and peplum studied was obtained.

Table 4. Table of Feasibility Analysis Results.

No	Indicator	Panelists		Average%
		Expert Panelists %	Trained Panelists%	
1	Design	16.27	15.87	16.07
2	Size	15.60	15.43	15.52
3	Sewing Techniques	15.20	15.53	15.37
4	Aesthetics	15.20	16.27	15.73
5	Fashion Performance	15.20	16.00	15.60
6	Privileges	15.87	16.17	16.02
Total		93.33	95.27	94.30

Based on table 4, Eligibility assessment results Bustier and Peplum Overall, the six indicators showed an average percentage of 94.30% and was included in the very feasible category. Expert panelists gave a total percentage of 93.33%, while trained panelists gave a score of 95.27% and both were in the very feasible category. Slight differences in the results reflect differences in viewpoints. Expert panelists judged based on professional experience and sensitivity to technical aspects and design principles, while trained panelists judged based on their academic understanding of the feasibility of fashion. The assessment of the feasibility of clothing is related to the ability to understand the characteristics and quality indicators attached to the clothing, so that panelists who have knowledge in this field are considered relevant to be involved in the feasibility analysis⁶⁷.

The indicator with the highest percentage is design, which is 16.07%. These results show that the design Bustier and Peplum considered very feasible by expert panelists and trained panelists. Visual structure is assessed according to the concept sustainable fashion, both in terms of shape, silhouette, and material selection⁶⁸. In the question item "shape and silhouette according to the character", it shows that there are still parts of the fashion that are interested or inflated. Meanwhile, there is a question item "the color of the fashion is in harmony with the concept" showing that the color combination is able to create a dynamic and modern impression and reflect the character of the 18-30 year old wearer. The results show that respondents rated Bustier and Peplum has met the design category based on the suitability of colors, lines, shapes, proportions, and visual focal points that support each other⁶⁹.

The uniqueness and added value of fashion is seen from the indicators of speciality through creativity of ideas, form innovation, exploration of materials, harmony, and fashion identity⁷⁰. Expert panelists assessed the peculiarity of fashion as seen from the application of shapes Puzzle with the use of batik patchwork fabric that produces a unique and attractive look. The percentage result in this indicator is 16.02%, which is very feasible by expert and trained panelists. In the question items "innovation of form and detail" and "combination of colors and harmony", it shows that the shape

⁶⁶ U. Permatasari, S. J., & Wahyuningsih, "Penerapan Manipulating Fabric Cording Dan Spiral Boning Pada Busana Pesta Dengan Sumber Ide Bunga Anggrek," *Jurnal of Fashion & Textile Design Unesa* 1 (2025): 128–37.

⁶⁷ Mahbubah, R. L., & Wening, "Pentingnya Kelayakan Produk Untuk Mendukung Minat Beli Ulang Busana Muslimah Ready to Wear Oleh Konsumen Barokah Putra Collection Tegal," *Prosiding Pendidikan Teknik Boga Busana* 17, no. 1 (2022)

⁶⁸ Hidayanti, N., Sukerta, M. P., Supriyanto, E., & Pamardi, "Analisis Konsep Desain Pada Pembelajaran Desain Busana."

⁶⁹ Anggraini, R., Widiartini, N. K., & Mayuni, "Pengembangan Hiasan Busana Pesta Anak Dengan Recyle Kain Perca," *Jurnal Bosaparis: Pendidikan Kesejahteraan Keluarga* 13, no. 3 (2022): 139–49.

⁷⁰ D. T. Putri, N. D., Novitasari, D., Yuwono, T., Asbari, M., Stie, M., Pembangunan, I., Stie, D. T., & Stmik, "Pengaruh Kelayakan Produk Dan Kelayakan Pelayanan Terhadap Kepuasan Pelanggan," *Journal Of Communication Education* 15, no. 1 (2021).

Puzzle It still needs to be refined to be more balanced, and the selection of supporting materials should be more consistent with the concept sustainable fashion. Meanwhile, there is a question item "design as a creative idea", which shows that fashion design presents creative ideas and novelty through the application of forms Puzzle which is still rarely used in fashion. Thus, the privilege indicator is an important aspect in determining the level of feasibility Bustier and Peplum developed. This is in line with other research that states that perceptions of design and visuals include not only aesthetic aspects, but also the meaning, symbols, and identities that make up the uniqueness of a work⁷¹.

The aesthetic indicator obtained a percentage of 15.73%, considered very feasible by expert panelists and trained panelists. Application of forms Puzzle is considered to be able to provide a unique and attractive visual appearance. Question item "texture of materials and decoration", utilization of patchwork with techniques patchwork able to strengthen aesthetic character while supporting the concept sustainable fashion. Meanwhile, the question item "combination of details and ornaments", the panelists assessed that although the installation of ornaments is not excessive, there are still some parts that need to be improved neatly. These findings show that the aesthetics of busan are not only determined by visual cues, but also by the attraction to the five senses, such as artistic physical shapes, harmonious designs, and harmonious color combinations⁷². This is in line with previous research that states that the choice of design, materials, and production methods plays an important role in determining the aesthetic value as well as the sustainability of the product fashion⁷³.

The fashion performance indicator obtained a percentage of 15.60% which is considered to be able to provide comfort and stability to the Bustier and Peplum when worn. The question items "easy to wear and take off" and "elegant impression, polite and professional", indicate that the direction of the opening Bustier still needs assistance during use. Nonetheless, the panelists assessed that the fashion had reflected an elegant impression that was appropriate for a semi-formal event. Meanwhile, the question item "stable fashion shape", fashion construction is considered good and does not limit movement space. These findings show that fashion performance is related to how the function and impression of the fashion is worn, which includes the stability of the fabric, proportions, ease of use, suitability of character with the concept, and elegant and professional impressions that reflect the function and comfort of the fashion⁷⁴. These results show that the feasibility of sewing and construction plays an important role in fashion performance so that Bustier and Peplum is considered to have met the functional and comfort aspects optimally⁷⁵.

The size indicator obtained a percentage of 15.52%. These results suggest that the ukura Bustier and Peplum has been in accordance with the proportion of use, but there are aspects that must be considered, where in the assessment item "clothing size", indicates a slight wrinkle in the line connection Princess Bustier although the size of the chest, waist and pelvis has been appropriate. Meanwhile, the question item "length of clothing according to design", the pattern is made based on the standard of women's body size so as to produce a look Bustier and Peplum balanced and neat. Size is a technical indicator that is directly related to body comfort and proportions, including the accuracy of circumference and length, size balance, pattern accuracy, and fabric fall⁷⁶. This is in line with the

⁷¹ Elvera, S. P., Ratri, A. P., Nurkholifah., & Pratiwi, "Fashion Design Perception: AComparative Study of Manual and Digital Methods."

⁷² W Berlianti, R. S. M., Widowati., & Prasetyaningtyas, "Kualitas Produk Outerwear Hasil Dari Pengolahan Limbah Lace Dan Tulle Menggunakan Teknik Surface Design," *Fashion and Fashion Education Jurnal* 13, no. 2 (2024): 149–54.

⁷³ F. D'Itria, E., & Vacca, "Shaping Sustainable Solutions in Fashion through Design-led Strategies, Approaches, and Practices," *Discover Sustainability*, 2024.

⁷⁴ I. W. Supraeni, N. L., & Suwendra, "Pengaruh Harga, Kelayakan Produk Dan Kepercayaan Terhadap Keputusan Pembelian Fashion Secara Online Pada Mahasiswa Pendidikan Ekonomi, Universitas Pendidikan Ganesha," . . *Ekuitas: Jurnal Pendidikan Ekonomi* 11, no. 2 (2024): 279–87.

⁷⁵ Altay, P., Çelikkanat, T. O., Evren, A. & Koçak, "Influence of Different Sewing Parameters on the Seam Quality of Cotton Sateen Fabric."

⁷⁶ Mahbubah, R. L., & Wening, "Pentingnya Kelayakan Produk Untuk Mendukung Minat Beli Ulang Busana Muslimah Ready to Wear Oleh Konsumen Barokah Putra Collection Tegal," *Prosiding Pendidikan Teknik Boga Busana* 17, no. 1 (2022).

statement that size is an important indicator to create clothing that suits your needs⁷⁷.

The indicator with the lowest average percentage is sewing technique, which is 15.37%, but it remains in the very feasible category which indicates that sewing techniques in general have met the standards of fashion eligibility. The question item "the use of decorative techniques is carried out neatly and precisely", showing that the application of decorative techniques and shapes Puzzle provide a unique and customized look. Meanwhile, the question item "fabric edges and final finishes", indicates the need to improve the consistency of the seam zigzag so that the final result is neater. These findings show that sewing techniques are assessed from the technical aspect, including the process of connecting clothing components, durability, seam neatness and clothing structure⁷⁸. This is in line with previous research which said that the quality of the stitch results is considered in terms of the accuracy of material selection, the feasibility of the result and the final appearance of the clothing. This analysis ensures that the fashion not only has aesthetic value, but also has strong construction and good durability⁷⁹.

Based on the results of the overall feasibility analysis conducted with six assessment indicators, it can be concluded that Bustier and Peplum with techniques patchwork Shape Puzzle able to meet the eligibility standards set based on the results of assessments from expert panelists and trained panelists. The six indicators support each other in showing the success of the design in terms of visuality, uniqueness, functionality, comfort and feasibility of construction. So that Bustier and Peplum developed not only meets aesthetic aspects, but also reflects the values of sustainable fashion and deserve to be published as an innovative and valuable fashion work⁸⁰.

CONCLUSION

Based on the results of the discussion and feasibility analysis that has been carried out, it can be concluded that Bustier and Peplum with techniques patchwork Shape Puzzle that apply the concept sustainable fashion declared very feasible. The conclusions in this study can be explained based on:

1. The manufacturing process is carried out gradually and systematically where it begins with the preparation of the moodboard and design, preparation of tools, preparation of materials, making bustier and pepum patterns, making puzzle patterns, applying patchwork techniques, the process of sewing bustier and peplum, to the finishing stages which shows the feasibility of construction and the precision of the workmanship.
2. The results of the feasibility analysis carried out on the six indicators were in the very feasible category with an average overall percentage of 94%, with the assessment results of each indicator, namely design of 16.07%, speciality of 16.02%, aesthetics of 15.73%, fashion performance of 15.60%, size of 15.52%, and sewing technique of 15.37%, which overall showed good assessment results.

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