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Design Quality Analysis of the Whispering Butterfly Robe as a Bridal Preparation Product

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Abstract

This study aims to analyze the design quality of the Whispering Butterfly Robe as a bridal preparation product. The robe was designed by adapting the characteristics of butterflies as the main source of inspiration, expressed through the application of organza floral appliques and three-dimensional (3D) butterfly embellishments to create a feminine and elegant visual appearance. This study employed a descriptive quantitative method with an evaluative approach. The design quality assessment was conducted through expert judgment involving five fashion experts, including professors, educators, alumni, and fashion designers. The research instrument consisted of a validation sheet covering six evaluation aspects: design, sizing, sewing techniques, aesthetics, garment performance, and product uniqueness. The collected data were analyzed using descriptive statistics in the form of percentages. The results indicate that the Whispering Butterfly Robe achieved an average suitability score of 91.93%, categorized as "highly suitable." The aesthetic aspect received the highest score (99.33%), followed by sizing (96.67%), garment performance (96.00%), and both design and sewing techniques (90.00%). Product uniqueness obtained a score of 79.33% and was categorized as "acceptable." Overall, the findings demonstrate that the robe possesses high design quality and successfully integrates aesthetic value, functionality, comfort, and craftsmanship, making it suitable as a bridal preparation product.

Keywords: *bridal robe, design quality, fashion design*

INTRODUCTION

The bridal fashion industry continues to evolve in response to changing lifestyles, globalization, and the increasing demand for personalized wedding experiences. Bridal attire is no longer viewed solely as ceremonial clothing but also as a reflection of personal identity, aesthetic preferences, and self-expression (Husnah et al., 2023). Along with the development of bridal fashion, attention has expanded beyond the wedding gown to include complementary products used during the bridal preparation process (Janah & Maeliah, 2017). One of these products is the bridal robe, which serves not only a practical function but also contributes to the visual experience and aesthetic atmosphere during bridal preparation (Vladimirovna & Vasilevna, 2025). Current fashion trends demonstrate a growing interest in nature-inspired designs as a source of creative exploration. Natural elements offer aesthetic value, symbolic meaning, and distinctive visual characteristics that can be transformed into innovative fashion products.

Previous studies have explored various sources of inspiration, including ylang-ylang flowers, Lavatera flowers, rose bouquets, Asmat culture, and swans, to develop innovative fashion designs (Rizkiya et al., 2022). These studies indicate that the exploration of inspirational sources plays an important role in establishing distinctive visual identities in fashion products. However, most previous studies have focused on the development of primary fashion garments, while research specifically

examining bridal robes as supporting products in the bridal preparation process remains limited (Nuryahya & Prihatina, 2021).

In addition to design innovation, design quality is a fundamental aspect of fashion product development (Sab & Safitri, 2022). Design quality encompasses aesthetic value, functionality, construction techniques, material selection, garment performance, and the harmonious integration of design elements. These aspects influence not only the visual appeal of a fashion product but also its usability and users' overall experience. Previous studies have shown that decorative elements enhance the visual value of garments, while appropriate bridal accessories contribute to the overall appearance and quality of bridal fashion products. Furthermore, successful fashion product development depends on appropriate design decisions and the ability to meet expected quality standards (E. B. Aini & Nahari, 2023). Based on the existing literature, a research gap can be identified. Previous studies have primarily emphasized the development of bridal fashion through the exploration of inspirational sources, whereas studies focusing on the design quality of bridal robes as supporting products for bridal preparation remain scarce. In addition, research evaluating fashion products through expert-based design quality assessment is still limited. Therefore, this study aims to analyze the design quality of the Whispering Butterfly bridal robe, inspired by the characteristics of butterflies, through expert judgment conducted by fashion professionals. The novelty of this study lies in integrating nature-inspired fashion design with an expert-based design quality evaluation in the context of bridal preparation products, thereby contributing to the development of fashion design practice and the creative industry (Indriani et al., 2025).

METHOD

This study employed a descriptive quantitative method with an evaluative approach. The descriptive quantitative approach was used to describe and analyze the research data in the form of numbers and percentages. The study was conducted over a period of one week in June 2026, with data collection taking place at the UNNES Campus, BBPVP Semarang, Burjo Ngegas Pleburan, and the respondents' homes. The subjects in this study were selected using a purposive sampling technique, specifically five fashion experts: one fashion professor, two educators, two alumni of the fashion program, and one designer.

The data collection method used was a closed-ended questionnaire in the form of a product validation sheet that was administered in person (offline) to the five respondents. The assessment instrument covered six indicators of garment suitability: design, size, aesthetics, sewing technique, garment performance, and unique features. Each indicator consisted of 5 assessment items, and each item had 6 sub-statements, resulting in a total of 30 main items with 180 statements to be evaluated. Respondents provided their ratings by checking (✓) the "YES" column if the statement applied to the apparel product, or the "NO" column if it did not, using the Guttman scale (YES = 1, NO = 0).

It took respondents about 30-45 minutes to complete the questionnaire, and in addition to the quantitative ratings, they were also given space to write comments and suggestions for improvement in the column provided at the end of the questionnaire. The data from the questionnaire were analyzed using SPSS version 26 with descriptive statistical analysis. The analysis steps included calculating the frequency of "YES" and "NO" responses for each statement item from the five respondents, then calculating the percentage of acceptability for each item using the formula:

$$P = \frac{f}{N} \times 100\%$$

Description:

P = Quality percentage

f = Score obtained

N = Maximum score

Table 1. Product Quality
Assesment Criteria

Precentage	Criteria
81 – 100%	Very Good
61 – 80%	Good
41 – 60%	Neutral
21 – 40%	Poor
0 – 20%	Very Poor

RESULTS AND DISCUSSION

The Whispering Butterfly Robe is a bridal preparation garment developed with a feminine and elegant concept inspired by the form and characteristics of butterflies, symbolizing beauty, gentleness, and transformation. The robe is made from double satin fabric, which features a smooth texture and subtle sheen, creating a luxurious appearance while ensuring comfort during wear. The design incorporates three-dimensional (3D) organza flower appliqués and butterfly ornaments strategically placed on several parts of the garment as decorative elements, resulting in a graceful and sophisticated appearance. The bridal robe is designed as a complementary garment for brides during the getting-ready process, pre-wedding photography sessions, and before wearing the main wedding gown. Therefore, it not only possesses aesthetic value but also fulfills functional and comfort requirements as a bridal preparation product.



Figure 1. Whispering Butterfly Robe Design

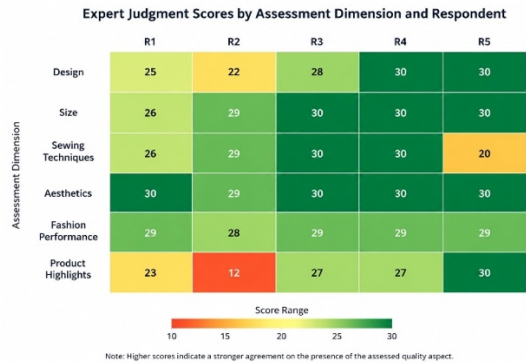


Figure 2. Expert Judement Scores by Assessment Dimension and Respondent

Table 2. Results Results of the Feasibility Test

Indicator	Research Results	Category
Design	90.00%	Very Good
Size	96.67%	Very Good
Sewing Technique	90.00%	Very Good
Aesthetics	99.33%	Very Good
Garment Performance	96.00%	Very Good
Product Uniqueness	79.33%	Good
Total	91.93%	Very Good

The findings indicate that the design quality of the Whispering Butterfly Robe was categorized as highly feasible, with an average score of 91.93%. This result demonstrates that the developed design meets high-quality standards across all assessment dimensions, including design, sizing, sewing techniques, aesthetics, garment performance, and product uniqueness. The high overall score indicates that both the design concept and its implementation comply with the quality standards expected for bridal garments, emphasizing not only aesthetic appeal but also functionality, comfort, and construction quality. Overall, these findings suggest that the Whispering Butterfly Robe design has achieved the expected quality standards and is suitable for further development as a bridal preparation garment that successfully balances aesthetic and functional values.

The design aspect achieved a score of 90.00%, categorized as highly feasible. This result indicates that the garment successfully demonstrates appropriate form, proportion, visual composition, and functionality as a bridal preparation garment. The use of white creates a soft and elegant impression that reflects the characteristics of bridal attire, while the proportional silhouette enhances the wearer's body shape harmoniously. In addition to emphasizing aesthetics, the design also prioritizes user comfort, resulting in a garment that is not only visually appealing but also functional. These findings indicate that the design process successfully integrates aesthetics, functionality, user needs, designer creativity, and innovation, thereby increasing its added value and competitiveness (Aini et al., 2024). This finding is consistent with Nuryahya and Prihatina (2021), who stated that the success of bridal fashion design depends on the designer's ability to translate the source of inspiration into a design with a strong visual identity. The Whispering Butterfly concept was successfully realized through the transformation of butterfly and floral elements into distinctive design features without compromising the primary function of the bridal robe.

The sizing aspect obtained a score of 96.67%, making it one of the highest-rated dimensions in the design quality evaluation of the Whispering Butterfly Robe. This result indicates that the garment dimensions, proportions, and size suitability adequately meet user requirements according to expert evaluations. Appropriate sizing plays an essential role in enhancing comfort, freedom of movement, and the overall visual appearance of the garment. This finding is consistent with Sab and Safitri (2022), who reported that fashion product quality is influenced by the suitability of form, design, and functionality in meeting user expectations. In the present study, the proportional sizing allows the bridal robe to be worn comfortably without reducing its aesthetic value. Therefore, the sizing dimension demonstrates that the developed design has achieved a high standard of quality as a bridal preparation garment.

The sewing technique aspect obtained a score of 90.00%, categorized as highly feasible, indicating that the garment construction and finishing processes meet high design quality standards. The neatness of stitching, precision in joining garment components, and finishing quality contribute to producing a comfortable, well-constructed, and professionally finished garment. The quality of bridal fashion design is determined not only by its visual concept but also by the technical skills involved in garment construction and finishing, which preserve the intended design form while enhancing decorative details. Furthermore, the successful implementation of the design inspiration depends on proper sewing techniques, enabling the garment to maintain its structural integrity, reinforce decorative elements, and create an exclusive appearance.

The aesthetic aspect achieved the highest score of 99.33%, categorized as highly feasible. This result indicates that the design elements, including form, texture, and ornamentation, are harmoniously integrated. The three-dimensional organza flower appliqués and butterfly embellishments serve as the primary aesthetic features that strengthen the garment's visual identity without disrupting the overall design balance. The combination of double satin and French tulle further enhances the elegant, soft, and luxurious appearance of the bridal robe. Overall, these findings

demonstrate that the design quality of the bridal robe is strongly influenced by the harmonious integration of all design elements that collectively establish its visual identity.

The garment performance aspect achieved a score of 96.00%, categorized as highly feasible. This finding indicates that the bridal robe design provides comfort during use, maintains its structural form, and supports flexibility in movement. The use of double satin fabric contributes to the garment's graceful drape, allowing the robe to appear proportional and elegant when worn. These findings suggest that design quality is reflected not only in visual appearance but also in the successful integration of functionality, comfort, and appropriate material selection to support the requirements of bridal preparation. The product uniqueness aspect obtained a score of 79.33%, categorized as feasible. This score was the lowest among the six assessment dimensions, indicating that the design still has opportunities for further development, particularly in terms of innovation, form, and novelty. Nevertheless, the bridal robe possesses distinctive characteristics that differentiate it from similar products through the application of three-dimensional organza flowers and butterfly embellishments. In addition, the garment consistently reflects the intended design concept, as demonstrated by the harmony between the design concept, construction techniques, and overall visual appearance. Overall, all assessment dimensions achieved feasible to highly feasible categories, with an average score of 91.93%. These findings demonstrate that the design quality of the Whispering Butterfly Robe meets a high standard based on expert evaluation.



Figure 3. Whispering Butterfly Robe

CONCLUSION

Based on the findings of this study, it can be concluded that the Whispering Butterfly Bridal Robe was successfully developed as a bridal preparation garment by adapting the characteristics of butterflies through the application of organza floral appliqués and three-dimensional (3D) butterfly embellishments. The design quality assessment conducted by five fashion experts resulted in an average score of 91.93%, which falls within the highly suitable category. The design aspect obtained a score of 90.00%, sizing 96.67%, sewing techniques 90.00%, aesthetics 99.33%, garment performance 96.00%, and product uniqueness 79.33%. These findings indicate that the robe demonstrates high design quality in terms of aesthetics, comfort, functionality, and garment construction. Therefore, the Whispering Butterfly Bridal Robe is considered highly suitable as a bridal preparation product and has the potential for further development within the bridal fashion industry.

DECLARATION OF GENERATIVE AI

The authors declare that no generative AI or AI-assisted technologies were used in the writing process of this manuscript.

CONFLICTING INTEREST STATEMENT

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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