

## Conference Paper

# Development of Draping Learning Media Through Dress Form in Determining the Pear Body Shape Compensation Ratio on Custom Skirts

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### Abstract

Skirts are one of the three fashion groups that have been around for a long time. The problem that is often faced by women with Pear body shape (pointy triangle up) when wearing a skirt is the side of the skirt that eavesdrops, the side rises up, the pelvic line rises, and the stomach part shrinks. The big difference between the size of the waist circumference and the pelvic circumference affects the quality of clothing. The pattern compensation ratio is a ratio determined to reduce the size of the clothing pattern. The compensation ratio on the pattern can be used on a custom skirt that is developed to be wider toward the right and left to make the ends of the skirt evenly. The pattern compensation ratio can be used on standard or fully developed skirts. The result of applying the pattern compensation ratio to the custom skirt depends on the type of material used. The Application Compensation ratio gives good results on materials with light, thin, and translucent properties, but materials with slightly heavy, shiny, and rather thick properties still need to be corrected in the pattern compensation ratio used. Although it is able to reduce the length of the fiber, it has not been able to produce a regular skirt that is parallel to the floor.

**Keywords:** compensation ratio, learning media, skirt

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## 1. Introduction

Draping is one of the fashion making systems in addition to the construction system, the advantages of the draping pattern system is that the application of the design can be directly realized using dress form media. By using dress form media, we can immediately see the quality of the results based on the level of suitability of the design [1].

Women's body shapes are categorized into four, namely: Body Shape Hourglass (time glass), Rectangular Body Shape (rectangle or straight), Apple Body Shape (pointed triangle down), Pear Body Shape (pointed triangle upwards) [2]. The body shape of

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Pear Body Shape (pointy triangle upwards) has a characteristic size of the waist and hip difference that is quite far away, with a body shape like this, women usually have problems using skirts. The problem that is often faced by women with Pear Body Shape body shape (pointy triangle up) when wearing a skirt is the side of the skirt that eavesdrops, the side rises up, the pelvic line rises and the stomach part shrinks. The more difference between the size of the waist and the pelvis, will cause the quality of clothes that are not good.

Development of geometric methods of measuring dimensional changes by calculating the fabric compensation ratio in the direction of attack by applying the fabric draping ratio, a theoretical method for making bias-cut patterns using gravitational forces and the fall properties of fabrics applied to custom skirts. Draping technique is very possible to form fashion uniquely and can be worn on the human body.

## 2. Result

The results of applying pattern compensation ratios to materials with mild, thin and translucent properties differ from those with slightly heavy, shiny and rather thick properties, this is influenced by differences in the types of weaving available. The light material uses plain weaving and thick material using satin woven. Satin weaving is known as the most easily stretched weaving while plain weaving is the strongest weaving among the three basic weaves.

Making satin yarn with a low twist causes less elasticity and weaving using jump numbers to make the fabric easier to stretch. This is caused by the braid points produced by a little satin woven. While the manufacture of plain woven yarn uses a high twist so that it produces good elasticity. The number of braid points produced by plain weaving also produces a stronger fabric [3].

The pattern compensation ratio is calculated using a formula:

$$\text{Pattern Compensation (\%)} = \frac{100}{100 + \text{rasio regangan}} \times 100$$

## 3. Calculate the Pattern Compensation Ratio

1. **Average Angle of Change**
2. Changes in Dimensions in Cloth Serong

The value of the elongated direction voltage (Lr) x 100

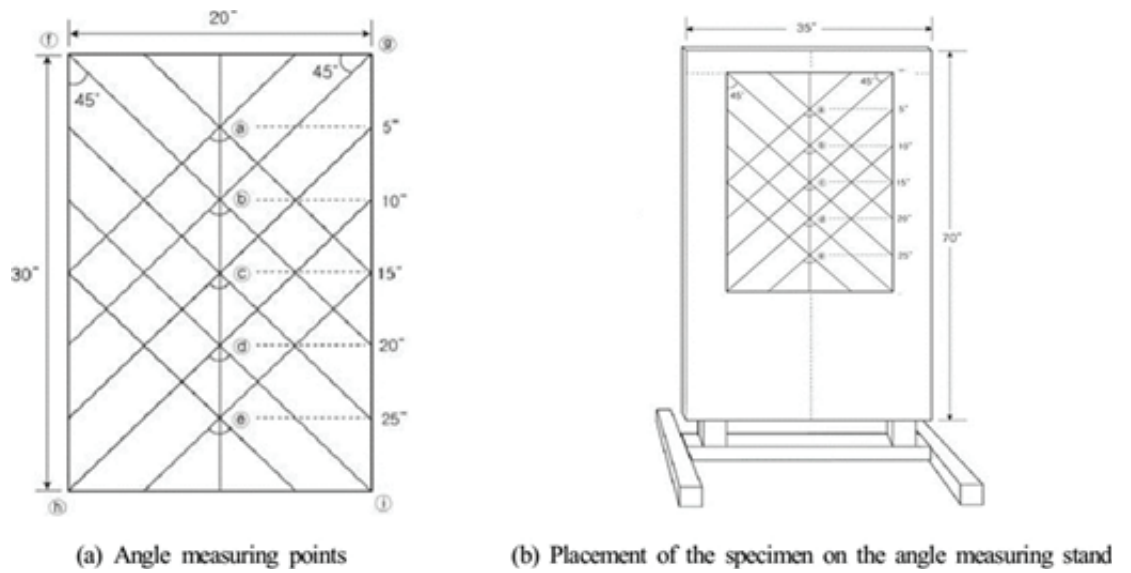


Figure 1

Where  $L'$  = long after hanging =  $2 \times \cos \theta/2$

$$\begin{aligned}
 L &= 2 \times \cos 2 \dots \dots \dots \text{ where } = 90^\circ \\
 &= 2 \times \cos 45 \\
 &= 2 \times 0.70 \\
 &= 1.41 \\
 &= -
 \end{aligned}$$

$$\begin{aligned}
 L' &= 2 \times \cos 2 \dots \dots \dots \text{ where } = 85.8 \\
 &= 2 \times \cos 42.9 \\
 &= 2 \times 0.73 \\
 &= 1.46
 \end{aligned}$$

$$\begin{aligned}
 Lr &= \frac{L' - L}{L} \times 100 \\
 &= \frac{1.46 - 1.41}{1.41} \times 100 \\
 &= 3.9
 \end{aligned}$$

## 4. Discussion

The pattern compensation ratio can be used on custom skirts to get the final edge of a flat skirt. Using a pattern compensation ratio makes making a more practical skirt more practical than determining the length of the side with the center length of the skirt face first and then cutting the bottom edge to smooth the suede skirt. The pattern compensation ratio can be used on standard or custom skirts that have undergone widening on both sides, but the results of applying pattern compensation ratios to custom skirts depend on the criteria of the material used. For plain, light, thin and translucent materials, the compensation ratio can be applied properly and give very satisfying results, namely flat skirts that are flat or parallel to the floor. However for satin-woven material, it is slightly heavy, shiny and somewhat thick. there is still a need to make corrections to the pattern compensation ratio used, because even though it is able to reduce the length of the fiber, it has not been able to produce a smooth skirt that is parallel to the floor.

## 5. Conclusion

Making the bottom edge of the skirt (new pattern line) after applying the pattern compensation ratio is done by dividing the known pattern and angle compensation ratio. If the known angle is  $X$  and the pattern compensation ratio is  $Y$ , the new point that will be formed is at angle  $22$ . Suppose that at an angle of  $450$  the known pattern compensation ratio is  $2$ , then at an angle of  $22.50$  the compensation ratio of the applied pattern is  $1$  cm and at an angle  $11.50$  the enough to form a gentle curved line.

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## Conflict of Interest

The authors have no conflict of interest to declare.

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