The effect of using Seams on the quality of sewing techniques of children’s clothing, executed with satin fabrics

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Abstract:
This research aims to Detection of the effect of the difference of the Seams types (Plain Seam ‘SSa’, the French seam ‘SSae’ and The Lapped Seam ‘LSr’) on the quality of the implementation of the techniques of sewing children’s clothing for occasions in middle childhood executed with satin fabrics, and Determining the considerations to be taken in to considerate when using this Seams in implementation of the sewing techniques of children’s clothing, research methodology descriptive and experimental were used, (12) models (dress) were implemented. Each of the four sewing techniques (Gathers, Invert, Pleats and Circular) was implemented using the three Seams, A “Product Evaluation Card” was designed to assess the impact of the Seams type on the quality of the sewing techniques of implementing children's clothing from the point of view of specialists, The results showed that there are no statistically significant differences between the effects of the three Seams in the first category related to the effect of the Seam factors on the quality of the sewing techniques, This is due to the stabilization of the Seam factors and variables when the three Seams are executed, The results also indicated that (LSr) achieved a higher rate of impact of Seams on the functional and aesthetic aspects of the quality of the sewing techniques, both in terms of the functional and aesthetic purpose of the sewing techniques or the garment product, This is due to the nature and characteristics of the (LSr), which is suitable for the implementation of all types of design lines, and the high strength, which helps to increase the life span and bear them for frequent use, The nature of the (LSr) makes it possible to use it as an ornament, as well as not to cause wrinkles, the occurrence of eagles or loss of stitches or creams. The garment products, which are carried out using (LSr), are suitable for double-face wear and ensure the comfort, freedom of movement, and ease of care. The differences between the effect of the (SSae) and (SSa), however, did not indicate statistical significance with respect to the functional and aesthetic aspects, where the two seams were similar in characteristics, possibilities and the nature of implementation.

Keywords: Seams Type, Sewing Techniques, Children’s Clothing, Middle Childhood Satin Fabrics.

1. Introduction
Upon the functional role of children's clothing in middle childhood, attention to children’s clothing in terms of design, colors, seams, sewing techniques, decoration and fabrics became a necessary requirement. A number of studies have examined the quality factors of the functional and aesthetic performance of children’s clothing. The results confirmed that there is a need for continuous research in the factors affecting the aesthetic and functional characteristics of children’s clothing in general and children's clothing in middle childhood in particular. Techniques for the implementation of children’s clothing is an important factor in the composition of the product and the formation of its functional role. Many studies have been concerned with sewing techniques for the implementation of general clothing and children’s clothing in particular. The results of these studies showed a need to study the factors of seams affecting the sewing techniques of implementing children’s clothing.
Seams are key factors in the successful implementation of the clothing product, and its functional and aesthetic role is confirmed. They are also important determinants that must be taken into account in the implementation of clothing, as the quality of the clothing products depends on...
them and accordingly, consumer acceptance can be obtained. Many studies have been interested in seams as an important determinant of the quality of the clothing product. The results of these studies confirmed the need to study the factors associated with the impact of the seams and to determine the appropriate considerations for using as an urgent and necessary requirement to obtain a garment product that meets the functional and aesthetic requirements in acceptable quality.

2. Research query
In the light of the above, the problem of research could be identified in the following main question: “What is the effect of the use of seams on the quality of the Sewing techniques of children’s clothing implemented in satin fabrics?”

The sub-questions of that main question are:

- What is the effect of the use of three seams types (Plain Seam ‘SSa’, French Seam ‘SSae’, and The Lapped Seam ‘LSr’) on the quality of the implementation of sewing techniques (Gathers, Invert, Pleats and Circular) in children's clothing in middle childhood made with satin fabrics?
- What considerations should be taken into account when using the Seams, which is the subject of this research, in the implementation of techniques for sewing children’s clothing in middle childhood implemented in satin fabrics?

3. Objectives

- Detection of the effect of the difference of the Seams types (Plain Seam ‘SSa’, the French seam ‘SSae’ and The Lapped Seam ‘LSr’) on the quality of the implementation of the techniques of sewing children’s clothing for occasions in middle childhood implemented in satin fabrics.
- Determining the considerations to be taken into consideration when using the Seams, which is the subject of this research, in the implementation of the sewing techniques of children’s clothing in middle childhood implemented in satin fabrics.

4. Methodology
The descriptive approach and the experimental approach were used. A “Product Evaluation Card” was designed to assess the impact of the Seams type on the quality of the sewing techniques of implementing children's clothing from the point of view of specialists.

Note: the search Theoretical framework included, seams type and factors affecting on its quality, satin fabrics and its characteristics, considerations that will be taken into account when design and sewing technique’s for children clothes.

5. Procedures
First: Research experiment

- Identification of the characteristics of the middle childhood and the requirements of clothing in relation to clothing occasions: The middle childhood was selected, specifically the age of 6 years, and girls’ clothing was chosen, specifically the dress.
- Identification of sewing techniques used in the implementation of clothing for children in the middle childhood, namely Gathers, Invert, Pleats and Circular.
- Identification Seams used in the implementation of sewing techniques for children in middle childhood. The three Seams types (SSa, SSae, LSr) were selected to assemble the parts of the garment models carried out in the current research with the specific sewing techniques. The sewing factors were fixed as shown in the following table, where the results of related studies indicated that these specifications achieve the best values for the quality of the sewing function as well as their suitability for medium-thickness satin fabrics:

<table>
<thead>
<tr>
<th>Type and weight of fabric</th>
<th>Satin Fabric100% polyester, Weight 185 Gram/M2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seam type</td>
<td>Plain Seam (SSa)</td>
</tr>
<tr>
<td>Compression foot pressure</td>
<td>Medium</td>
</tr>
<tr>
<td>Thread type and Size</td>
<td>100% polyester dyed, Size 40/2</td>
</tr>
<tr>
<td>Needle Size</td>
<td>14 Singer</td>
</tr>
<tr>
<td>Stitch Density in CM</td>
<td>3 Stitch/CM</td>
</tr>
</tbody>
</table>
• Designing the proposed garment models in light of the type of sewing technique used (Gathers, Invert, Pleats and Circular) and the dress style. The first model was designed by the Gathers, the second was implemented by the Invert technique, the third model was implemented by the Pleats, and the fourth model was implemented by the Circular technique. Each of these models was assembled using the three Seams (SSa, SSae, LSr).
• Preparation of the patterns for the proposed models in light of the type of implementation technique used (Gathers, Invert, Pleats and Circular) and garment pattern (dress).
• Cutting the paper patterns and making the necessary enlargements depending on the type of sewing technique used (Gathers, Invert, Pleats and Circular).
• Retracting the fabric face to face lengthwise and then interlocking the parts of the patterns on the fabric in the longitudinal direction of the fabric (Warp).
• Cutting the parts of the pattern and then assembling the parts of the clothing product using the specific Seams (SSa, SSae, and LSr).

Second: Preparing the evaluation tool that was used to evaluate garment products in the light of the research variables:
Assessment card for the quality of implementation techniques of children occasions’ clothing has been prepared. The aim of this tool is to assess the impact of the type of Seams on the quality of the executed product implementation techniques. The reliability and stability of the tool were calculated, which is in its final form consisting of 22 items divided into three categories: The first is about the effect of sewing factors on the implementation of the garment product. The second is about the effect of the seams type on the functional purpose of the sewing technique and the functional purpose of the garment product. The third is about the effect of the seam type on the aesthetic aspects of the finished product. After the implementation of products using the different sewing techniques (Gathers, Invert, Pleats and Circular), 11 clothing and textile specialists evaluated the garment products.

6. Results
• There are no significant differences in the effect of the three Seams types (Plain Seam (SSa), the French Seam (SSae), and The Lapped Seam (LSr)) on the quality of sewing techniques of children’s clothing (Gathers, Invert, Pleats and Circular), from the point of view of specialists.
• There are no significant differences in the effect of the Plain Seam (SSa), and the French Seam (SSae) on the quality of sewing techniques of children's clothing (Gathers, Invert, Pleats and Circular), from the point of view of specialists.
• The Lapped Seam (LSr) achieved the highest rates in average overall assessment of the effected Seam types on the quality of sewing techniques of children's clothing (Gathers, Invert, Pleats and Circular), followed by the Plain Seam (SSa), and then the French Seam (SSae), from the point of view of specialists.
The Lapped Seam (LSr) achieved the highest rates in achieving the functional purpose for sewing techniques of children's clothing and the garment product from the point of view of specialists implemented by the Sewing Techniques of (Gathers, Invert, Pleats and Circular), followed by the French Seam (SSae), and then Plain Seam (SSa).

For the Circular technique, The Lapped Seam (LSr) achieved the highest achievement in the aesthetic aspects of the children's clothing, followed by the French seam (SSae) and then Plain Seam (SSa).

7. Discussion
The results of this research showed that there are no statistically significant differences between the effects of the three Seams (Lapped Seam ‘LSr’, French seam ‘SSae’, and Plain Seam ‘SSa’) in the first category related to the effect of the Seam factors on the quality of the sewing techniques of implementing the children's clothing. This is due to the stabilization of the Seam factors and variables when the three Seams are executed. The results also indicated that the Lapped Seam (LSr) achieved a higher rate of impact of Seams on the functional and aesthetic aspects of the quality of
the sewing techniques for the implementation of children's clothing, both in terms of the functional and aesthetic purpose of the sewing techniques or the garment product. This is due to the nature and characteristics of the Lapped Seam (LSr), which is suitable for the implementation of all types of design lines, and the high strength of tensile strength, which helps to increase the life span and bear them for frequent use. The nature of the Lapped Seam (LSr) makes it possible to use it as an ornament, as well as not to cause wrinkles, the occurrence of eagles or loss of stitches or creams. The garment products, which are carried out using Lapped Seam (LSr), are suitable for double-face wear and ensure the comfort, freedom of movement, and ease of care. The differences between the effect of the French (SSae) and Palin Seam (SSa), however, did not indicate statistical significance with respect to the functional and aesthetic aspects, where the two seams were similar in characteristics, possibilities and the nature of implementation.

8. References

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