**TBIS**

**Topic of the Speech:**
Subjects of Design and Production for Personalized dress Shirt
Taking into Account Comfort and Preference

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# Subjects of Design and Production for Personalized dress Shirt Taking into Account Comfort and Preference

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**ABSTRACT (NO MORE THAN 500 WORDS:)**

In apparel industry of developed countries, production bases are shifting to overseas due to low labor costs, and factories are moving overseas. For preserving technology and employment in domestic, it is necessary to produce high added value clothing taking into account comfort and preference. In the case of dress shirts, there are a large number of consumers who are dissatisfied with the comfort and preference, thus it is necessary to produce shirts with high added value taking into account fit and textile preference. However, to make personalized shirts considering fit, detailed measurement and body figure analysis by experts are required, which takes cost and time. Moreover, information and the acquiring method for preference and requirement on textile texture and pattern is still unclear.

To propose a method for making a personalized dress shirt, we investigated aspects of ready-to-wear shirts that are unsatisfactory by performing wear experiments on Japanese males and confirmed the importance of the customization of the shoulder elements of shirts. It was clarified that dissatisfaction points with ready-to-wear dress shirts: the tightness of the neck and poor sleeve and shoulder matches.

To investigate the characteristics of the shoulder forward thrust and square shapes, we measured three-dimensional body shapes and proposed a simple measurement method for shoulder shape by adjusting the basic shirt pattern used for the customization, in consideration of the wide range of differences in shoulder shape. We devised a measuring device to assess the slope, shape and thrust of the shoulder. By measuring the shoulder's direction and angle, it is possible to understand the wearer's shoulder type and what adjustments are necessary.

To propose judgment criteria of body figure whether personalizing is necessary for making men's dress shirts or not, we investigated the criteria and a required measurement of the forward head, sway back, rounded upper back and prominent abdomen which requires pattern alteration. We also proposed an assessment method for comfort of dress shirts for special body types using a commercial 3D clothing simulator. We investigated the relationship between texture, cost and those preference of shirt textile. This study will help to make personalized men's dress shirt with consumer satisfaction.