Abstract: Different samples of fancy yarns are designed and produced using the twisting machine with hollow spindle. The designed yarns are used to create a collection of evening dresses and the main inspiration for the collection was the use of metallic yarn. In order to get the feedback from potential buyers of designed yarns, subjective assessment of yarns is carried out. At the core of methodological approach is the use of paired comparison test.

Keywords: design, fancy, yarn, collection, paired comparison

1. INTRODUCTION

Fancy yarns are those in which some deliberate decorative discontinuity or interruption is introduced, of either colour or form, or of both. This discontinuity is incorporated with the intention of producing an enhanced aesthetic effect. A fancy yarn is almost invariably complex in construction, with the natural result that the application of these more time-consuming or complex manufacturing processes makes the yarn more expensive than a single yarn would be. It may contain many different components that may be filament or staple, natural or synthetic. The most luxurious yarns involve the ‘noble’ fibres such as cashmere, mohair, angora, or other more expensive natural fibres such as linen or silk. In some cases, an effect may best be obtained by the use of a synthetic – for example, the gleam of a metallic thread has no natural fibre counterpart, and slit films can also be used to remarkable effect (Gong, 2002).

Fancy yarns are used all time of the year. In winter collections are mostly used for the scarves, gloves, hats, warm jumpers, jackets, pants. In autumn/ winter collection are usually used voluminous yarns, so the final product will be soft and warm. For this purpose can be used fasciated yarn, snarl yarn, loop yarn, gimp yarn… or any other. Fancy yarns are even used in spring/summer collections for the production swimwear, summer bags, accessories, etc. (Gong, 2002). Fancy yarns are very interesting for designers due to vivid colors and impressive structures. Therefore, they may be used for a wide range of clothing articles, as well as home textiles and interior design (Salopek Cubric, 2008).

There are many styles of fancy yarns that are created to meet a particular requirement when subsequently converted into the fabric and later in a single garment. The decision of designer which of many styles to use, means that it is no longer necessary to design a complex fabric structure in order to obtain visually attractive fabric. If the structural effects of such yarns are strongly expressed, the aesthetic component will be fulfilled even if the fabric structure is the simplest (Petrulyte, 2008; Salopek Cubric & Skenderi, 2012).

2. DESIGN AND PRODUCTION OF FANCY YARN COLLECTION

Different samples of fancy yarns are designed and produced using the twisting machine with hollow spindle produced by Simet company (Rozic and Salopek Cubric, 2014; Skenderi et al., 2010). The samples of yarns, including the image and description of components are given in the Table 1.
Table 1 Designed fancy yarns

<table>
<thead>
<tr>
<th>Fancy yarn 1 - Chanel 513</th>
<th>Fancy yarn 2 - Viol 507</th>
<th>Fancy yarn 3 – Spumante 258</th>
</tr>
</thead>
</table>
| **Component 1**- black yarn  
Structure: single; Raw material: cotton | **Component 1**- black yarn  
Structure: single; Raw material: cotton | **Component 1**- black yarn  
Structure: single; Raw material: cotton |
| **Component 2**- white yarn  
Structure: folded; Raw material: synthetic | **Component 2**- white yarn  
Structure: folded; Raw material: synthetic | **Component 2**- violette chainette yarns  
Structure: chainette; Raw material: synthetic |
| **Component 3**- gold metallic yarn  
Structure: single; Raw material: metal | **Component 3**- dark violet yarn  
Structure: folded; Raw material: cotton | **Component 3**- green yarn  
Structure: folded; Raw material: synthetic |
| **Component 4**- violette yarn  
Structure: chainette; Raw material: synthetic | | **Component 4**- light green yarn  
Structure: loop; Raw material: cotton |
| **Component 5**- red yarn  
Structure: filament; Raw material: synthetic | | **Component 5**- red yarn  
Structure: filament; Raw material: synthetic |

<table>
<thead>
<tr>
<th>Fancy yarn 4 – Grass 22</th>
<th>Fancy yarn 5 - Mary 186</th>
<th>Fancy yarn 6 - Mary 187</th>
</tr>
</thead>
</table>
| **Component 1**- white yarn  
Structure: single; Raw material: cotton | **Component 1**- white yarn  
Structure: single; Raw material: cotton | **Component 1**- white yarn  
Structure: single; Raw material: cotton |
| **Component 2**- light green yarn  
Structure: loop; Raw material: cotton | **Component 2**- yellow yarn  
Structure: folded; Raw material: synthetic and wool | **Component 2**- yellow yarn  
Structure: folded; Raw material: synthetic and wool |
| **Component 3**- shades green yarn  
Structure: folded; Raw material: wool | **Component 3**- red silver yarn  
Structure: folded; Raw material: metal and wool | **Component 3**- red silver yarn  
Structure: folded; Raw material: metal and wool |
| **Component 4**- metallic green yarn  
Structure: filament; Raw material: synthetic | | **Component 4**- white yarn  
Structure: folded; Raw material: synthetic |
Continuation of the Table 1

<table>
<thead>
<tr>
<th>Fancy yarn</th>
<th>Composition</th>
<th>Structure</th>
<th>Raw material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fancy yarn 7 - Lucy 59</td>
<td>Component 1- black yarn&lt;br&gt;Structure: single; Raw material: cotton&lt;br&gt;Component 2- gold metallic yarn&lt;br&gt;Structure: single; Raw material: metal&lt;br&gt;Component 3- light green yarn&lt;br&gt;Structure: folded; Raw material: wool</td>
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<tr>
<td>Fancy yarn 8 - Lucy 61</td>
<td>Component 1- black yarn&lt;br&gt;Structure: single; Raw material: cotton&lt;br&gt;Component 2- gold metallic yarn&lt;br&gt;Structure: single; Raw material: metal&lt;br&gt;Component 3- dark green yarn&lt;br&gt;Structure: folded; Raw material: wool</td>
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<tr>
<td>Fancy yarn 9 - Blue 65</td>
<td>Component 1- black yarn&lt;br&gt;Structure: single; Raw material: cotton&lt;br&gt;Component 2- white yarn&lt;br&gt;Structure: folded; Raw material: synthetic&lt;br&gt;Component 3- violet blue yarn&lt;br&gt;Structure: folded; Raw material: wool&lt;br&gt;Component 4- light blue yarn&lt;br&gt;Structure: folded; Raw material: wool</td>
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<td>Fancy yarn 10 – Blue 70</td>
<td>Component 1- black yarn&lt;br&gt;Structure: single; Raw material: cotton&lt;br&gt;Component 2- violet blue yarn&lt;br&gt;Structure: folded; Raw material: wool&lt;br&gt;Component 3- light blue yarn&lt;br&gt;Structure: folded; Raw material: wool</td>
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<tr>
<td>Fancy yarn 11 – Fresh summer 365</td>
<td>Component 1- black yarn&lt;br&gt;Structure: single; Raw material: cotton&lt;br&gt;Component 2- white yarn&lt;br&gt;Structure: folded; Raw material: synthetic&lt;br&gt;Component 3- yellow yarn&lt;br&gt;Structure: folded; Raw material: cotton&lt;br&gt;Component 4 – pink yarn&lt;br&gt;Structure: folded; Raw material: wool</td>
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<tr>
<td>Fancy yarn 12 – Moglie 40</td>
<td>Component 1- black yarn&lt;br&gt;Structure: single; Raw material: cotton&lt;br&gt;Component 2- colourful yarn&lt;br&gt;Structure: chenille; Raw material: cotton and synthetic&lt;br&gt;Component 3- light green yarn&lt;br&gt;Structure: folded; Raw material: wool</td>
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3. DESIGN OF DRESS COLLECTION WITH FANCY YARNS

The main yarn component and leading inspiration for the collection of dresses is shiny, metal yarn. The use of this yarn is perfect for design of collection of long dresses, those that should be assigned as “dresses for red carpet”. The inspiration of the author is well described by the following words: “I already saw my collection of long dresses connecting and interleaving with fancy yarns. I wanted to create new look, and new style for red carpet. My customer is women between 25 and 45 years old. I wanted to connect the dress and colour to the fancy yarns that I created. In my fashion illustrations, we can see how I would connect fancy yarns in the real dresses.”

The collection of dresses with fancy yarns is shown in the Figures 1 and 2.

![Collection of dresses with use of fancy yarns Lucy 61, Chanel 513, Blue 65 and Mary 187](image)

Fig. 1 Collection of dresses with use of fancy yarns Lucy 61, Chanel 513, Blue 65 and Mary 187
Fig. 2 Collection of dresses with use of fancy yarns Mary 186, Lucy 59, Blue 70, Fresh summer 365, Moglie 40, Blue 65, Spumante 258 and Grass 22
5. PAIRED COMPARISON TEST – EVALUATION OF DESIGNED YARNS

In order to get the feedback from potential buyers of designed yarns, subjective assessment of yarns is carried out. At the core of methodological approach is the use of paired comparison test. In the test participated 12 evaluators that are asked to compare each two presented yarns and define which one they consider “more attractive” and therefore “preferred for purchase”. For the sample that is considered “more attractive”, “1” is recorded and for the remaining sample “0”. If no choice is made, “0.5” is recorded for both presented samples. The test is repeated for all other pairs of specimen randomly. The records are collected in a table and all entries are summed to derive the overall ranking. The magnitude of subjective assessment is again ranked to give composite rank order.

The results of paired comparison test are given in the table 2.

Table 2 The record of evaluations

<table>
<thead>
<tr>
<th>Evaluator</th>
<th>Yarn 1</th>
<th>Yarn 2</th>
<th>Yarn 3</th>
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<th>Yarn 7</th>
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<td>71</td>
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<td>79.7</td>
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<td>52.5</td>
<td>58</td>
<td>76.5</td>
<td>73.5</td>
<td>77.5</td>
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</table>

The results of pairwise analysis, presented in the Table 2, indicated that the highly ranked yarns are fancy yarn 10 (Blue 70) and the only yarn consisting of chenille component - fancy yarn 12 (Moglie 40). Those yarns are followed by fancy yarns 5 and 6 (Mary 186 and Mary 187) that have almost the same structure, but differ in one additional component that is included in the structure of fancy yarn 6. At the opposite side of ranking are fancy yarn 3 (Spumante 258) that has very loose structure and fancy yarn 7 (Lucy 59). It should be noted that the differences of records obtained for a single yarn are significant. Therefore, this method represents a valuable tool for each designer wanting to evaluate own work.
6. CONCLUSION

For fashion designers, fancy yarns are visually and tactile very interesting. Due to the vibrancy of colors and possibility to achieve a number of effects, fabrics made from fancy yarns are used to make a variety of items that can be worn in a number of occasions. In this paper is represented the cycle of collection design – starting with design of yarn and continuing with design of entire collection of evening dresses. The especial value is in the fact that one designer was able to direct and design both the yarn and dress collection and not to use already produced yarns that were designed by another person. In order to get the feedback from potential customers, pairwise analysis was carried out. It appeared to be valuable method for comparison of samples due to the fact that the differences between scores are significant and in accordance with the expectations and perception of designer.

REFERENCES