

## **A comparative study between five methods for the construction of men's shirt basic pattern**

**Dr. Shimaa Al Monem Al Sakhawy**

Lecturer, Clothing and Textile Dept., Faculty of Home Economy,

Al Azhar University, Tanta

[Shaimaaalsakhawy@azhar.edu.eg](mailto:Shaimaaalsakhawy@azhar.edu.eg)

### **Research summary:**

#### **Introduction and research problem:**

Men's shirts are one of the clothing parts which their production falls under the type of quantitative production, and men's shirt industry is considered one of the industries that has received great attention, which its production requires to raise the level of quality in the local and global markets, which is no longer simply means just producing a good service or make it better than its available counterpart, but it rather means, also the beneficiaries' satisfaction with the commodity and achieving the quality of the facility as a whole.

By introducing the researcher to the subject of the project for the fourth year, the Department of Clothing and Textile, Faculty of Home Economics, Al-Azhar University, as well as through field visits to some ready-made clothing factories, and from the standpoint of keeping pace with the content of the curriculum with the applied reality, and given the need of the department in the college for a codified scientific study in this field, due to the multiplicity of construction of basic pattern methods for men's shirts, and also the need of labor market for graduates who are familiar with the knowledge and skills associated with this field, and given the multiplicity of means to construct basic patterns of men's shirts with different degrees of fit on various types of bodies. The researcher has got five methods, including: the classic and casual Aldrich method, the Teresa Italian method, the Armstrong method, and the Buthainah Al-Kafrawy method, so it is imperative to know the most accurate and appropriate for the Egyptian body among these methods.

**The research problem** can be formulated in the following questions:

- What are the differences among the five ways of construction of the basic pattern of a shirt, to be fitted perfectly?
- What are the best method of the five methods to construction of a basic men's shirt pattern that fits the body?

#### **The research aims:**

##### **The current research aims to:**

- 1- Study some methods used in construction of basic men's shirts patterns.
- 2- Trying to get to the best way for construction of a basic men's shirt pattern, out of the five ways of construction of a basic men's shirt pattern.

#### **The research importance:**

The importance of the research is evident in the following points:

- 1- Providing a codified scientific study of some methods of construction of the basic men's shirt pattern.

2- The results of this research can be used to teach specialized study materials for students of the clothing and textile department by applying the optimal method and teaching it in specialized colleges.

3- Attempting to link university education with the reality of society and its needs.

4- Contributing to addressing some of the problems and difficulties facing ready-made garment factories that need this kind of model in implementing their products because of the time and effort they provide to reach patterns that help raise the level of quality.

### **Key Words:**

pattern- basic pattern - men's shirt.

### **Search terms:**

#### **1-Men's Shirt:**

The shirt is one of men's clothing pieces, which is an outer robe that covers the upper body from the shoulders to the level of the buttocks or slightly higher, with a collar cut from one or two pieces, and a closure closed by buttons and buttonholes, and two sleeves, and it can be worn alone with pants or under a jacket or with a coat or sweater. (Ahmed Ali Salman et al., 485, 2016)

#### **2- Basic Pattern:**

They are lines and curves drawn on paper in special technical and engineering means, based on accurate measurements of the dimensions of a particular body, and take the shape of the body by sewing and darts, which is the basis for any construction of a design. (Ahmad Ali Salman et al., 358, 2016)

### **Research Methodology:**

The research follows: the applied approach in order to suit this research and to answer questions and achieve goals.

### **The search tools:**

-A questionnaire for arbitration for professors of specialization.

### **Research hypotheses:**

-First hypothesis: There are statistically significant differences among the sizes of the basic pattern of men's shirt in achieving the evaluation aspects (as a whole) according to the opinions of specialists.

-The second hypothesis: There are statistically significant differences among the dimensions of sizes of basic pattern men's shirt in achieving the evaluation aspects (as a whole) according to the opinions of specialists.

-The third hypothesis: There are statistically significant differences among the ways of constructing the basic pattern of men's shirt in achieving the evaluation aspects (as a whole) according to the opinions of specialists.

### Research limits:

#### The research is limited to studying:

Five ways to build basic men's shirt pattern which are: the classic and casual Aldrich method, the Teresa Italian method, the Armstrong method and the Buthainah Al-kafrawy method.

Three sizes of the five basic patterns were selected to do the research. These sizes are: chest circumference 92, 100 and 108 cm.

### Practical framework:

The researcher carried out a careful study of the methods used in construction of basic men's shirt patterns, and the methods of construction and thus various degrees of fitting on the body have multiplied, and from these methods the researcher got five methods that were compared to reach the best of them in order to achieve fitting, comfort and convenience for the body, and these five methods are: The casual and classic Aldrich method, the Armstrong method, the Teresa Italian method, and the Buthainah Al-Kafrawy method. The methods are encoded as follows: (a) for the classic Aldrich method, and (b) for the casual Aldrich method, and (C) for the Italian method of "Teresa", (d) for the "Armstrong" method, and (e) for the Buthainah Al-Kafrawy method.

The following are pictures of the models implemented for the five methods in the first size:



Method (A) is a size (1) in front    Method (A) is a size (1) side    Method (A) is a size (1) behind



Method (B) is a size (1) in front    Method (B) is a size (1) side    Method (B) is a size (1) behind



Method (C) is a size (1) in front

Method (C) is a size (1) side

Method (C) is a size (1) behind



Method (D) is a size (1) in front

Method (D) is a size (1) side

Method (D) is a size (1) behind



Method (E) is a size (1) in front

Method (E) is a size (1) side

Method (E) is a size (1) behind

### Legalization of tools (honesty and consistency)

First: A questionnaire to evaluate the methods of building the basic pattern for a men's shirt. A questionnaire directed to specialists in the field of clothing and textiles has been prepared - to judge the methods for building the basic pattern for a men's shirt, and the questionnaire includes (4) axes:

The first axis: the front and includes (11) phrases.

The second axis: the back and includes (10) phrases.

The third axis: the sleeve and includes (7) phrases.

The fourth axis: the collar, includes (3) phrases.

Likert triple grade scales can be excellent (three degrees), inappropriate (degrees), first analyzer temperature (33) degrees, second axis (30) degrees, third axis (21) degrees, and fourth axis (9) degrees of total degree, and the questionnaire (93) degrees

The following table shows the averages, the quality factor, and the arrangement of methods for building the basic model of men's shirt in achieving the evaluation aspects (as a whole) according to the opinions of specialists.

**Table (9): Averages and quality labs methods of constructing the basic men's shirt pattern in achieving aspects of evaluation (as a whole) according to the opinions of specialists**

axis arrangement	quality factor	standard deviation	The average	Methods of constructing the pattern
2	87.07	0.99	39.18	pattern) a(
1	98.04	0.99	44.12	pattern) b(
5	43.13	0.86	19.41	pattern) c(
3	75.70	1.83	34.06	pattern) d(
4	66.38	0.34	29.87	pattern) e(

From table (9) it was found that the best way for constructing the basic men's shirt patterns, " is pattern B", followed by pattern A, followed by pattern D, followed by pattern E, then pattern C.

### Summary of results:

By checking the hypotheses of the research, there are differences among the basic methods of constructing the basic patterns of men's shirt that are the subject of the study in order to fit the Egyptian body in terms of amount of comfort (breadth), so that their arrangement was in preference as follows: pattern (A) for the Aldrich method, then pattern (D) for the Armstrong method, followed by pattern (E) for the Buthaina Al-Kafrawi method, then pattern (C) for the Italian method for Teresa.

### Research Recommendations:

1- The necessity of continuous updating and development of the curricula taught to students of the clothes and textiles department in the Faculties of Specialization in light of industry requirements to keep pace with technological progress.

2- The actual link between scientific research and the industry in general and the garment factories in particular to meet the requirements of the labor market in order to advance that industry.

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