

# Design development of skirts for school going girls

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■ **ABSTRACT :** Recent researches support the idea of customized product where consumers want individual needs met in the most satisfying manner. The objective of this project is to determine the preferences of school going girls in the age group of 12-18 years of age and designing skirts for different occasions viz., school, sports, casual and formal wear. Skirt is an item of dress for its popular style line and other features like comfort and look etc. Present investigation is an exhaustive study of the preferences of school going girls for skirts. Skirts in different length options make the wearer feel comfortable and attractive. Skirt is an item of dress which is very versatile, smart and suitable for many occasions. The treatment given may present an ethnic look to contemporary, stylistic and modern look. The basic silhouette and treatment gave variety of designs. The current trends showed skirts as one of the most preferred dresses among the school going girls. Considering the fashion, style as well as their preferences for skirts, different designs of skirts were developed using CAD technology.

■ **KEY WORDS:** Fashion, Style, Sloper, Panel, Silhouette

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The clothing industry's increasing growth is attributable in part, to the growing purchasing power of the people. Now-a-days an increased level of the dress consciousness of individual has contributed to the development of innovative designs because it is the most important factor in consumer choice of clothes. As the fashion and style change fast, the consumer gives more preference to colour and design rather than quality. Thus, the fashion process is a key concept to understand the penetration of new style in a society and comprehend the adoption by the individuals. Fashion refers to the kind of clothing that is in a desirable style at a particular time. At different times in history, fashionable dress has taken very different forms.

Adolescence is the period between childhood and adulthood that is characterized by continual changes in the physical and emotional development of a girl. Almost all of these changes take place between the ages of eleven to fifteen. During this period, suitable clothing is important for overall personality development of the individual. Today children in this age are considering young adults. It is

changing the notion of childhood. Clothes help in building a sense of acceptance and belongingness in the group and individual identification. Style and becomingness are quite important to adolescent girls who demonstrated greater clothing awareness than boys.

Fashions may vary considerably within a society according to age, social class, generation, occupation and geography as well as over time. Fashion designers attempt to design clothes which are functional as well as aesthetically pleasing. They must consider who is likely to wear a garment and the situations in which it will be worn. They have a wide range and combinations of materials to work with and a wide range of colours, patterns and styles to choose from. Though most of the clothing worn for everyday wear fall within a narrow range of conventional styles, unusual garments are usually sought for special occasions, such as evening wear, school, picnic, leisure night wear or party dresses. Fashion is all about change and designer's greatest challenge is the ever recurring dilemma. Fashion sense is about flair, style, originality and coordination on a theme. Different silhouette, colour range, fabric and textures are tried. Fashion is defined

as a succession of short term trends. It relates to change in colours, styling, fabrication, silhouette and performance that reflect fashion trends. It is important for the fashion industry to cope with the changing environment.

A design is an arrangement of materials, texture, form and colour. Design has been defined simply as the selecting and arranging of materials with two aims, that is order and beauty. A good design is always as perfect piece which gives eminence satisfaction to be the designer as well as to the wearer. Silhouette or basic outline of a dress explains its style, fashion, and beauty. The length of skirt, sleeves, jacket, bolero or peplum, the volume or fullness of each part and the place of the waistline as well as other features of the outline express a dress design statement. In a beautiful design there will be harmony of lines, size, and shape in each part of the silhouette in relation to each other and to the whole. A pleasing silhouette neither reveals all or nor conceals all. Fine dress designs demands harmony between the dress and the figure of the wearer. A good design seems aesthetically appealing and beautiful throughout the year despite fashion change. A design which changes these proportions too much for the sake of fashion would look grotesque amusing and confusing. A good design will appear to improve and enhance the body proportion and personality of the wearer.

Designers certainly need to concentrate more on the consumers' need and expectations. On part of a designer, more sensibility is required in the creative efforts for a better balance between creativity and commercialism. Creativity with wear ability would be the ideal combination. There is needed to be more market orientation. Novelty does not just mean the shape, but something new added. Newness that is added will be the new design. Designer should know exactly what is to provide to feel comfortable. The stress should be on the importance of good quality considering all parameters.

Erwin and Kinchen (1969) opined that a well fitted skirt should balance on the figure from right to left and front to back. There should be no crosswise or diagonal wrinkles caused by too snug, a fit through the hips or waist. The zipper should be well hidden. Some recent designs in knitted fabrics have elastics in the band without a placket. Less expensive materials include manmade fabrics. Some of the blends are available in beautiful colours, solids, plaids, strips and printed designs. Washable skirts are made of seersucker, crash, rayon, crepe, silk, linen, permanently pleated cotton, acetate and blends of manmade fibres pleated, gathered or gored. Skirts and dresses must be of a fabric and design which can take much sitting. A - line skirts provide flare without sagging. Pleats in skirt provide needed swing, hang better than in circular and are no harder to press. Gathered skirts also meet the standards.

Katcharyan (1988) cited that computers have begun to make their mark on the fashion industry. The success of fashion company depends on its ability to keep costs down

and to public demand in the fastest time possible. The main benefits of computerization to a designer are in terms of speed, flexibility and efficiency. The feeding of design information and style details experimented to produce desired design in no time. The designer can experiment with lot new ideas with little efforts and no cost of sample garment. CAD is recently developed method of fashion design where two dimensional designs can easily viewed into 3 dimensional ones. This ability to view from any angle brings a whole new concept to the meaning of fashion design.

#### **Aims and objectives:**

Keeping in view their preferences for skirts, different designs of skirts were developed using CAD for school going girls. Specific objectives of this study were as follows:

- To develop designs for different styles of skirt through CAD on the basis of their preferences and prevailing fashion scenario.
- To construct the five most preferred styles and evaluate their acceptability.
- To develop inter active design module of the two highly acceptable skirts.

To find out the preferences of the school going girls, a pre-coded interview schedule was developed according to the selected variables and objectives set forth the study. Appropriate research tools were developed to collect the information regarding preferential design features for skirts. This information was utilised for designing of skirts using CAD technology as tool for developing paper pattern of skirts as interactive design module and for construction of garments. Keeping in view the preferences for different designs features in skirts, designs were developed using Lectra CAD software for dress designing.

#### **Designing of skirts:**

After the analysis of data, twenty sketches were developed taking care of preferences of school going girls for different styles of skirts and also the features observed during the market survey. The twenty designs sketches of skirts were developed keeping in view the preferences of girls for different design features on style designing and selection of fabrics. Preferences on flare and fullness, yoke, length of the skirt, placket opening, pocket style, type of decoration and trimmings were all considered while designing. The information acquired after taking preferences were used for designing skirts in various styles through CAD. For this work, designs were developed Lectra software, which supports all feature normally association with CAD.

#### **Designing through CAD:**

Computer-aided design (CAD) is the use of computer technology for the design of object. Its application in dress designing is significant in present era. CAD often involves

more than just shapes. As in the manual drafting and drawings of the design, no information is achieved on the other hand the output of CAD must convey the information such as material, process, dimensions and tolerances according to application specific conventions.

CAD is now an important industrial tool extensively used in many applications. Modern CAD (Computer Aided Design) packages range from 2D drafting systems to 3D solid and surface modellers. CAD is used in the design of tools and machinery and in the drafting and drawing of design, it is also used throughout from the conceptual design and layout and dynamic assemblies definition of manufacturing method of components. CAD has become an important technology within the scope of computer aided technologies with benefits as lower product development cost and a greatly shortened design cycle. CAD unable to layout and develop work on monitor/screen, sizing and grading of the pattern, print it out and save it for future editing, saving time on their drawings.

#### Construction of garments:

Skirt is an important item of dress having many styles. As per the requirement of the design, flare can be introduced in the skirt by means of gathers, pleats and additional flare can be added in the form of panels or gores. Skirts can also be cut on the bias grain of the fabric. A range of variety and designs from the fitted and shaped skirts to the fully flared umbrella cut are popular styles.

The basic skirt sloper is a plain fitted skirt draft with darts at the waist. The basic skirt has a total ease of 4.0 centimetres at the waist (Thomas). The measurements required for drafting the basic skirt sloper are, length of the skirt, length from waist to hip, waist girth and hip girth. The five highly appreciated/preferred designs were constructed with specific design features. The discussion on constructed designs is given as follows:

#### Design code 01 :

This is a design in which knife pleats were used to add flare. Centre front panel was designed with three knife pleats facing side seam and attached to a bias cut side panel. Side pockets were also used to add functionality to the design. Belt and button band were cut on bias to add pleasing interest in the design as the fabric selected for construction was check/plaid. Side panels were joined by giving a fine piping of contrast colour. Buttons on centre panel were used as surface decoration. Concealed zipper was used as closing at side opening. Skirt back was simply designed with three side facing knife pleats. This design was found to be suitable for school uniform, sports and casual wear (Fig. 1).

#### Design code 02 :

This design was constructed in light weight denim fabric.



Fig. 1: Design code 01

This is a short skirt where the length was above knee. Two side facing knife pleats were used to add required flare. A wide belt with two sides and one back flap cum loop were used to create interest. Side flaps were also used to conceal side welt pocket. Flaps were functioning dual purpose also serving loops for waist belt. The top stitching with contrast colour and large buttons add surface interest to the structural design of the skirt. This design was found to be most suitable for school, sports and casual wear (Fig. 2).



Fig. 2 : Design code 02

#### Design code 03 :

This design was constructed in light weight satin of contrast colours. Self-floral design of light weight fabric was used as base where as dark plain pink fabric was used to create bias drape on the side. Simple gathers and pleats were used to add flare and interest in the design. Yoke cum belt was used to fit at waist. Large buttons and contrast trimming were used to add interest on the yoke which was designed with two darts to fit at waist. Concealed zipper was used as

closing at side opening. This design is a full length skirt design found to be most suitable for party and formal wear (Fig. 3).

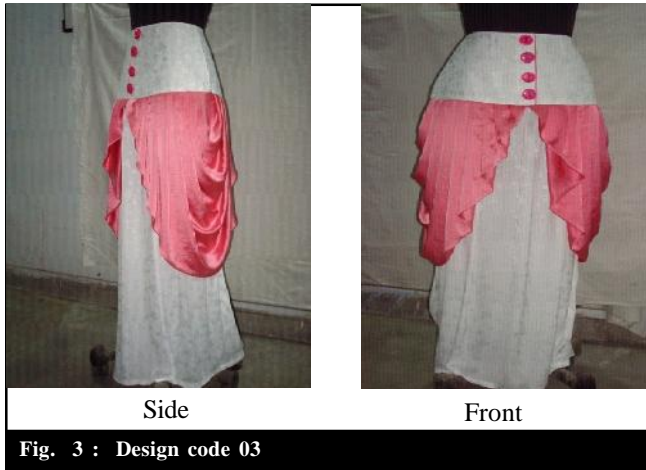


Fig. 3 : Design code 03

above knee and it was found to be more appropriate for sports, travel, picnics and casual wear (Fig. 5).



Fig. 5 : Design code 05

**Design code 04 :**

This skirt was designed with gathers and layered crisscross front panel in contrast colours. These layer panels were decorated with use of contrast braid. This was a calf length skirt suitable for occasional/formal wear. All round elasticized waist was used to fit at waist (Fig. 4).



Fig. 4 : Design code 04

**Design code 05 :**

This culottes or the divided skirt was designed by introducing a crotch line. This was divided at the centre. For this check, fabric was used and interest was added by putting different section on different grain. The belt and the skirt sections were cut on bias where as yoke and pockets on straight grain. Darts were used to fit at waist and concealed zipper was used as closing for side opening. Contrast colour buttons were used for added surface interest. Two patch pockets on side seam were attached on sides for adding functionality to skirt. Length of this skirt was kept slightly

The five highly appreciated designs were constructed and evaluated for acceptability. The constructed skirts were shown to the respondents and their opinions regarding the constructed designs were observed. The opinions were based on the basis of style, designing features, fabric, colour, fasteners, placket opening and other treatment.

After construction of the skirts, the constructed designs were evaluated by a panel of thirty respondents from senior group (16-18 years) and they expressed their opinion regarding the designs. Designs were highly appreciated in terms style line (silhouette) the treatment and the selection of fabric and accessories in relation to look of the design. The design features like fullness, colour combination, fasteners, placket opening, and pocket styles were highly appreciated by the panel.

Although all the designs were appreciated but design code 01 and 02 were more liked so interactive garment module for these two designs were developed.

**Conclusion:**

This investigation would provide helpful suggestions to manufacturers and designers with flair and imagination make use of this information for designing of skirts for girls. CAD technology facilitate to create pattern in graded sizes (ready to use pattern) for different styles and different garments which can be easily used by home maker, students, designers to produce designs for their own use. CAD technology helps to fasten the garment industry by helping designers and manufacturers to use ready patterns produced by interactive garment module of designs for different garments. In this present investigation, one item of dress is subjected to study. Similarly other items of dress like blouses, shirts, trousers, kameez, tops can also be studied.

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