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## Designing and construction of garments with illusion using appliqué technique for different body types

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### Abstract

A woman in this modern world of fashion is more conscious of their figures and more eager to improve their general appearance than ever before. They are moving into a larger world, where there is just one world of fashion. People have become blind slaves to fashion. But also with this slavery, arise complaints which vary with each individual. The common complaints include being of different body types like pear, rectangle, inverted triangle, oval. All girls wish to look like a hourglass figure. Everyone wishes to be better from what one is.

The present study was planned to provide scope to the designers so that each different body types female consumer would have beautiful clothes of their choice. The study would also extend scope for expansion of market for appliqué technique used for garments.

A survey of different body types of girls was conducted. The measurements of twenty girls - round bust, round waist and round hip were taken. Five different body types were categorized, like hourglass body, rectangle body, pear body, inverted triangle body and oval body. Hour glass body type was taken as standard body for the study. Thirty designs of garments were sketched for five categories of body type, six in each category. Illusion and colour were also included in the designed garments. Then sketched designs were displayed for selection of best three designs under each category. Designs were selected by administering the preference schedule to 50 respondents. Purposive sampling method was used for selection of respondents. Fifteen designs, three best designs from each category were selected. Sourcing of suitable fabrics was done for the study. The selected designs of garments were then constructed for five categories. The photography of the constructed garments, on the models was done. These garments were then worked with appliqué work to create illusions according to the designs for different body types. It showed some area of body look reduced like bust, hip and waist. Some of the body areas had effect of increased width. The final photography of the garments with appliqué work was done to compare the effectiveness of appliqué work in creating illusion for different body types. The garments were displayed with photographs and evaluated by respondents through questionnaire. The result of the evaluation revealed that the appliqué technique had been used effectively to design garments for different body types. These designs would have market for women who look for such creative garments.

**Keywords:** Body shapes, appliqué work, illusion

### 1. Introduction

Women in this modern world of fashion are more conscious of their figures and more eager to improve their general appearance than ever before [2]. Very few girls have an ideal body shape. The common complaints include being of different body types like pear, rectangle, inverted triangle, oval. All girls wish to look like an hourglass figure. Everyone wishes to be better from what one is. However, when you understand your body proportions and a few tricks, borrowed from the art world, you can dress for your body type and create the illusion of the perfect shape. All designers strive to create the effect of the figure type that is in style at the moment. Fashions in figures change even as do fashions in clothes [3]. Colour is perhaps the most important component of fashion. Colour in relation to complexion is an important factor for the consumer. Colour can also be applied to the body to create illusions and to correct figure problems. The contrast between light and dark is used frequently to create effective illusions that disguise figure problems. Contrasts accent different parts of the body and create subtle illusions. Dark areas recede visually, so an area of the body that is disproportionately large can be balanced by covering it with a dark garment. Light colours stand out, which make light areas seem larger than they are, especially when contrasted with

dark areas. Value, or contrast between light and dark, is used frequently to create effective illusions<sup>[5]</sup>.

Line, like colour, is a most important factor in dress design. When used correctly, lines can create a pleasing appearance. They can be used to call attention to figure assets or, through illusion, they can cleverly hide liabilities. Thus the “optical-illusion power” of line can be used to advantage in clothing. Vertical lines usually add height; horizontal lines add width; diagonal lines may either lengthen or broaden the figure. The more nearly vertical the diagonal lines are, the more slenderizing they will be<sup>[1]</sup>. When vertical lines dominate a dress design, they draw the gaze of eyes up and down the figure. Obviously an illusion of height is created making the figure look taller and slender and the width becomes less noticeable<sup>[3]</sup>. Horizontal lines add width or breadth and shorten the body. Horizontals are the strongest lines and one should avoid placing them at the wider area of the body which may give larger effect<sup>[4]</sup>. The dominance of diagonal lines in clothing creates active starting and dramatic effects. Modifying effect of diagonal lines depends upon the angle and length of line, the degree of the slant of the line that determines the illusion created. The shorter diagonal line leads the eye from side to side, giving an impression of width, while the longer line leads the eye, equally downwards and sideways for a narrow and longer look<sup>[7]</sup>. Knowing how to best dress your body shape and balance your physical characteristics can be tricky business. One of the easiest ways to work with the body you have is through the way of fashion optical illusions. Every solution to create body balance is grounded in the use of optical illusion. Optical illusion can be created to make use of line movement, the psychology of colour and design of fabric<sup>[6]</sup>.

## 2. Purpose of the study

In this world of ever-changing fashion new styles and designs are in demand. People have a growing desire for new trends in patterns, colours, shapes and designs. Everybody has some problem in its choice is a vanity issue

for different body types. Everybody is not of standard body size, but every one wishes to look slim & fit. This study was planned to create new designs for different body type which will create an illusion to make them look slimmer and better. Appliqué technique was used to create illusion on the dress designs that would hide abnormalities of figures and represent them almost closer to normal figure. The garments designed for different body types using appliqué technique and suitable colours will help people look slim and fit. More importantly a large population can take benefits of it. The technique of appliqué was chosen as a novel idea for creation of illusion which will also give market to the appliqué with variety in the design.

## 3. Objectives of the Study

- To design and construct garments with illusion using appliqué technique for different body types
- To evaluate the constructed designs for different body types in terms of illusion created, suitability of the fabrics, appliqué technique, colour combination, effectiveness of designs and market acceptability.

## 4. Method of procedure

An exploratory and experimental research was carried out to understand different body types of college going girls. A survey of different body types for twenty girls in the Faculty of Family and Community Sciences, The Maharaja Sayajirao University of Baroda, Vadodara and Hansa Mehta girls’ hostel in Vadodara city was conducted. Measurements like round bust, round waist and round hip were taken. Five different body types were classified and taken for the research study. They were hourglass body, rectangle body, pear body, inverted triangle body and oval body. Hourglass body type was taken as standard body for the study.

A pilot study was conducted taking two body types; Oval and rectangle shapes. Proto types were prepared for these body types by creating illusion. The following figure shows the effect of illusion created.



Oval body type

Rectangle body

**Fig 1:** Proto types of body with illusion

Design sketches were made using illusion, appliqué and colour. The body types undertaken for the research was divided into five categories:

Category-I: Rectangle Body Type

Category-II: Pear Body Type

Category-III: Hourglass Body Type

Category-IV: Inverted Triangle Body Type

Category-V: Oval Body Type

Thirty designs of garments were sketched for five categories of different body type, six in each category. Illusion and colours were also included in the designed garments. Fifteen designs, three best designs from each category were selected by the students and teachers of Clothing and Textiles Department.

A number of plain cotton fabric samples were sourced from the local market with consideration of colours suitable for illusion to be created on designed garments. Fabrics that will cause ease in appliqué work were collected. 100% plain cotton handloom fabrics with combination of bright and light colours for garments were selected. 100% plain cotton mill made black and white fabrics were combined to create illusion through appliqué work. The colours of the garments were selected according to the elements of designs, colour in particular. The colour of the fabrics selected also had advancing or receding effect, which would make the body type look broader or slimmer.

Drafting of basic bodice and sleeve blocks was done using hour glass body measurements as standard from which adaptation for different body types was done. The selected designs were then constructed for different body types. The photography of the constructed garments, on the models was done as per body type classification. These garments were then worked with appliqué work to create illusions according to the designs for different body types. The final photography of the garments with appliqué work was done to compare the effectiveness of appliqué work in creating illusion for different body types.

The preference schedule was prepared using questionnaire tool. Preferences were taken from female students of halls of residence, staff members, and students of Clothing and Textiles Department, Faculty of Family and Community Sciences, The Maharaja Sayajirao University of Baroda, Vadodara. This totaled to 50 respondents in all.

The actual garments with appliqué were displayed to get actual view of the constructed designs. Photographs of each category, with and without appliqué work were also displayed with each garment for understanding of appliqué technique used to create effective illusion for different body types. The cost of each garment was also mentioned with the garment. The questions pertaining to appropriateness of designs, illusion created with appliqué technique on garments, suitability of fabrics used, colour combination of garments, effectiveness of the designs, suitability of the selected designs for different body types, market acceptability and cost of the garment were included in the questionnaire.

**5. Results and discussion**

A total of 15 garments in five categories were constructed and worked with appliqué technique to create illusion according different body types. Hourglass body was taken as standard body type. Three garments under each category including the standard were constructed with appliqué technique to create illusion.

The measurement study revealed that there were five different body types. The different categories of body types and measurements were given in Table 1.

**Table 1:** Size chart for different body types.

Category	Body Types	Bust (cm)	Waist (cm)	Hip (cm)
Category-I	Rectangle body	92	84	97
Category-II	Pear body	82	72	97
Category-III	Hourglass body	85	69	89
Category-IV	Inverted triangle body	87	67	83
Category-V	Oval body	112	117	115

The selected designs were adapted and then constructed for different body types. The constructed garments for different body types were displayed on the models as per body type classification for the photography. These garments were then worked with appliqué work to create illusions

according to the designs for different body types. The final photography of the garments with appliqué work was done to compare the effectiveness of appliqué work in creating illusion for different body types. Some of the designs have been illustrated in Figure 2.



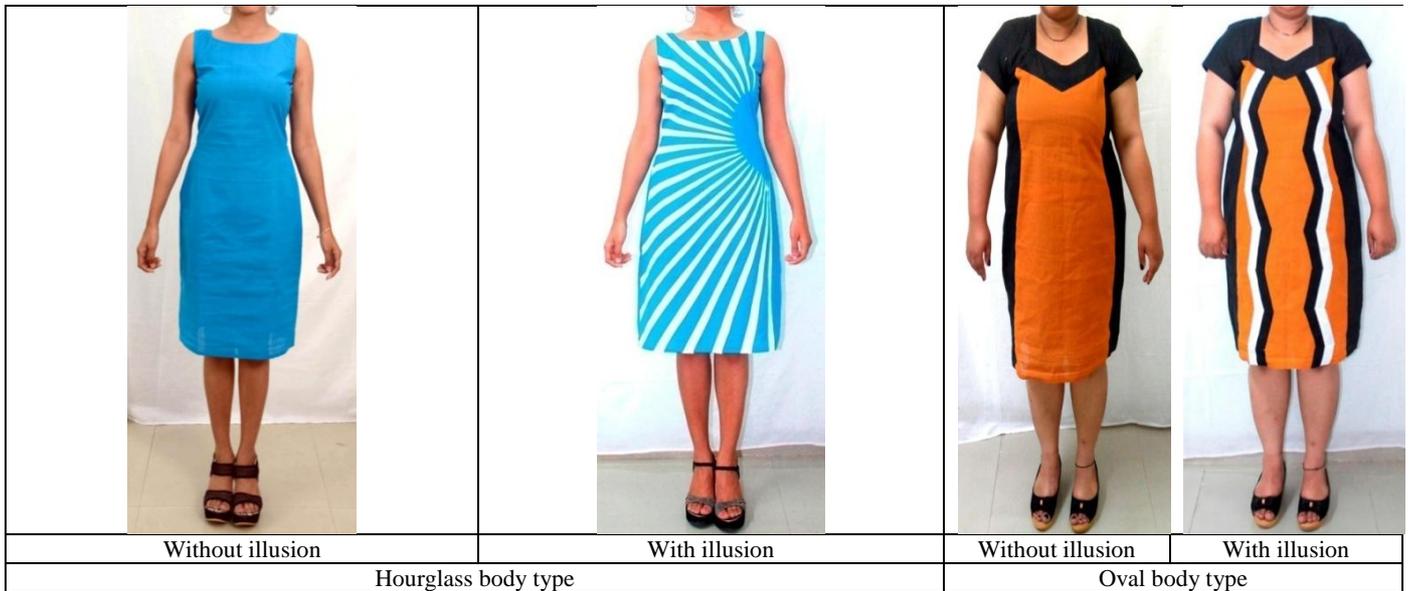


Fig 2: Garments without and with illusion

The evaluation of the constructed garments along with photographs was done to see the effectiveness of illusion created; suitability of the fabrics, appliqué technique, appropriateness of the designs, colour combination, suitability of the selected designs for different body types and market acceptability.

The result pertaining to the concept of garment designing for different figure types was found to be innovative. Majority of the respondents felt that created illusion for garment design was very much needed, while few respondents opined that illusion created was somewhat needed (Figure 3).

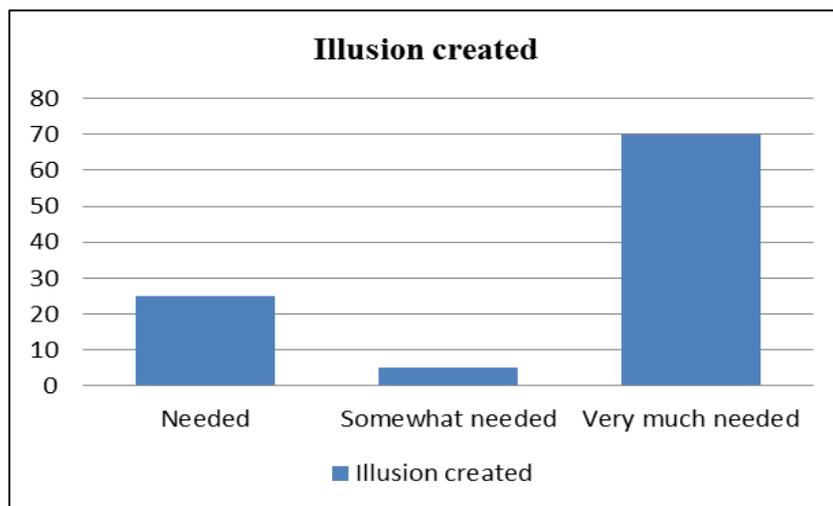


Fig 3: Illusion created for garments design.

Most of the respondents found the handloom fabrics used were most suitable. Few of them found not suitable as they felt the fabrics were light in weight (Table 2).

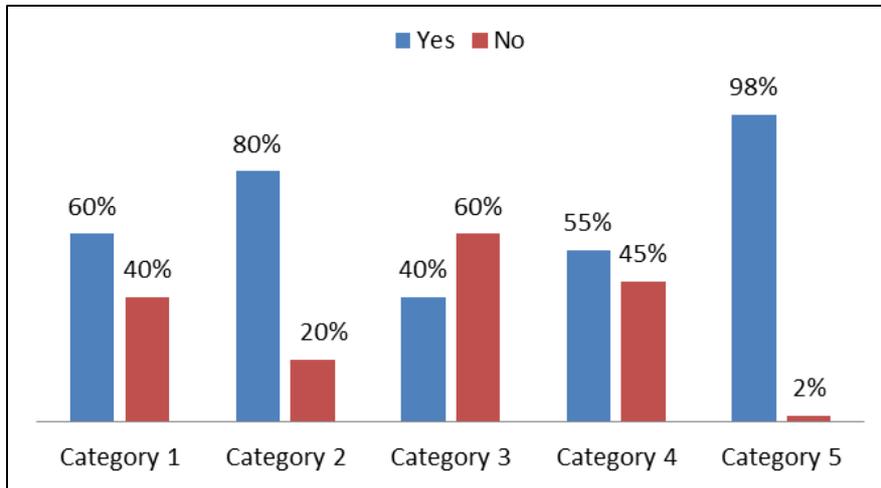
Table 2: Preliminary Data of the Selected Fabrics.

Fabric Sample	Fabric Name	Weave	Count/sq inch		Weight in gm/sq meter	Thickness In mm
			warp	weft		
1.	100% Cotton Handloom fabric	Plain Weave	66	102	122	42mm
2.	100% Cotton mill made fabric	Plain Weave	88	112	95.2	35mm

The opinion of the respondents regarding suitability of fabric and colour revealed that most of them found fabric colour to be suitable. Majority of the respondents thought that the handloom fabric which was used were most suitable. Some respondents suggested for other fabric because handloom fabric was light weight. Few respondents did not find the handloom fabric suitable. As regards to the suitability of the colour, majority of the respondents found

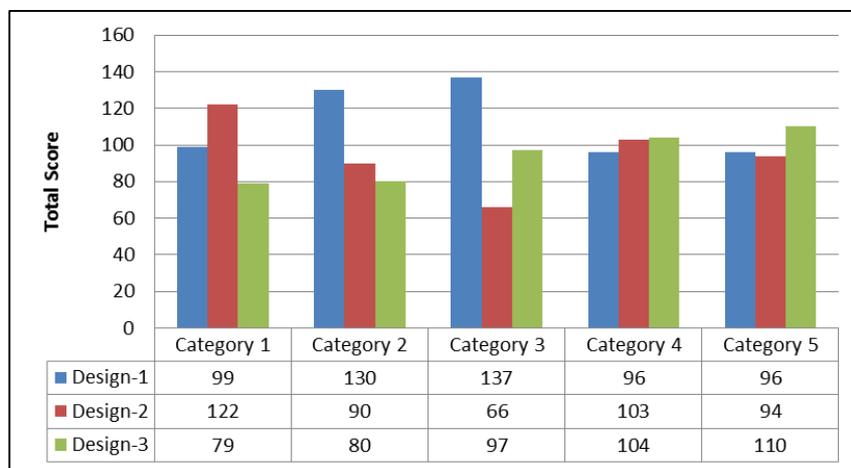
fabric colour to be suitable. Most of respondents liked selected colours.

The evaluation of the constructed garments for appropriateness of appliqué technique revealed from the Figure 4 that category 2 and 5 had been most effectively depicted with the idea of creating illusion for different body types.



**Fig 4:** Appropriateness of the idea of creating illusion for different body types.

The best of the three garments in each category were ranked (Figure 5).



**Fig 5:** Distribution of the respondents regarding the ranking of best designs from each category in order of their preference.

The responses for category 1, Rectangle body-design 2; category 2, Pear body type-design 1; category 3, Hourglass body type-design 1; category 4, Inverted triangle body type-

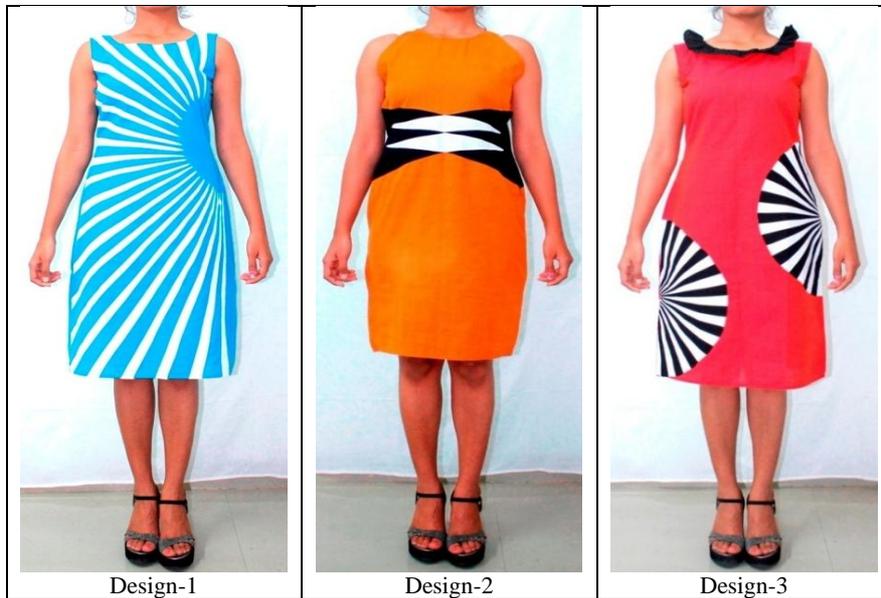
design 3; and category 5, Oval body type-design 3 were found to be highest preferred (Figure 6).



**Fig 6a:** Category-I: Rectangle body



**Fig 6b:** Category-II: Pear body type



**Fig 6c:** Category-III: Hourglass body type



**Fig 6d:** Inverted triangle body type

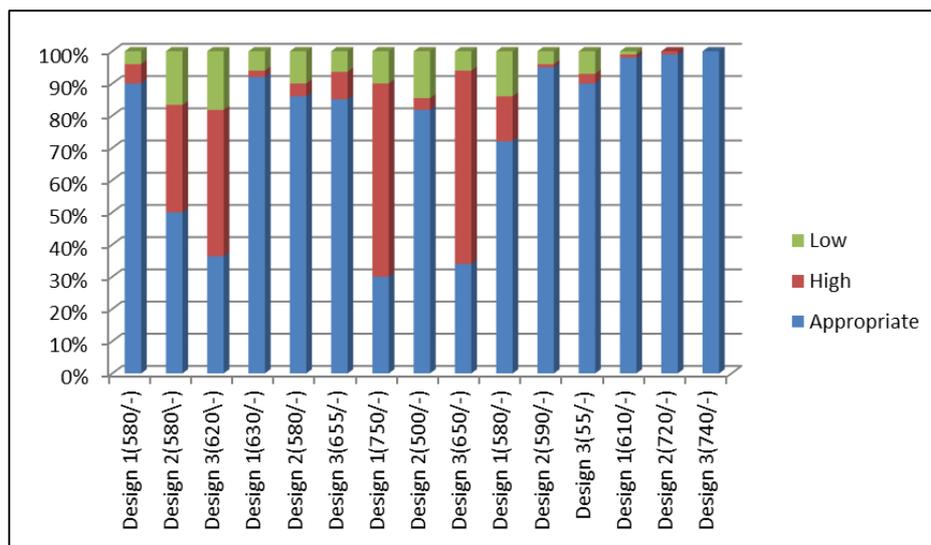


**Fig 6e:** Oval body type

**Fig 6:** Photographs of best three selected final garments under each category

The opinion of the respondents regarding marketability and acceptability of the designs was obtained by mentioning cost

on the garment. The respondents found the designs interesting and marketable with the quoted price (Figure 7).



**Fig 7:** Opinion of the respondents regarding the estimated cost of garments in each category.

The features and shapes that created the silhouette and other constructional details of garments can actually be used to improve the proportions of a figure or to camouflage certain problem spots. Appliqué has a unique dimension and life peculiar to itself. With appliqué one can silently communicate one’s individuality and personal warmth and can bring value to the world that a technological society doesn’t produce. Colour can also be applied to the body to create illusions and to correct figure problems. Designers should be aware of how colour can highlight parts of the body and minimize figure problem, especially if designing for a special-size woman. The contrast between light and dark is used frequently to create effective illusions that disguise figure problems.

**6. Conclusion**

The study received an excellent and positive response for the hard work and great effort has been put in for designing,

constructing and creating illusion by appliqué technique on the garments. They found the designs to be highly creative, innovative and appropriate to enhance the different body types of women.

As per their opinion, illusion created for the garment was needed. Few of the respondents were aware of the body type and the garments available in the market. The respondents found the colours of the designs very appropriate but some of them said that the fabrics were not very suitable. The respondents found the designs depicted with illusion for different figure types were appropriate. According to respondents these designs are suitable for casual wear followed by party wear and contemporary wear. The designs received positive preference for marketability and acceptability. The concept of designing garments for different body type was found to be unique and novel. Majority of respondents suggested that these designs should be introduced in the market.

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