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Research Paper

Development of new range of tops using origami technique

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■ **ABSTRACT :** The present study was undertaken by investigator to add new ideas for creating creative designs of tops. Thirty designs of tops with front bodice design, sleeve design and collar design using origami technique were developed and evaluated by the fifty respondents on the basis of uniqueness of design and aesthetic appeal. Design no. 4, 8, 11, 18 and 28 were selected for the development of prototypes. Prototypes were evaluated to know the consumer acceptance on the basis of certain parameters such as color, origami design and overall appearance by selected panel of respondents. It was found that all prepared prototypes were highly accepted by the respondents. The study has fulfilled its objectives with high performance of appreciation. All the tops were accepted by the consumers for the purchase and they were willing to wear.

■ **KEY WORDS:** Origami, Garment designing, Clothing, Tops.

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In the field of fashion and garment designing, specialists scrutinize and exercise with different techniques of manipulating fabric. Recently, fashion has moved to origami to find inspiration for creating complicated and original design. Origami as the paper folding art inspired designs in many ways. Origami, "the Japanese word" consist of two words ori (fold) and kami (gami - paper) (Shafei and Maghrabi, 2019). Origami art is the compound of technique and experience in paper folding and has last more than thousand years. This art is not only applicable in fine art but also influential in architecture and clothing (Ding *et al.,* 2013).Origami-inspired fashion designers include Japanese designers, such as Yoshiki Hishinuma, Junya Watanabe, Hiroaki Ohya and Issey Miyake, as well as Western designers, such as Victor and Rolf, Calvin Klein, Hussein Chalayan, John Galliano and others (Choi, 2016).

■ RESEARCH METHODS

The present study was conducted in Banasthali Vidyapith, Rajasthan. In this research origami technique was used, in which tops were constructed from a basic darted bodice block. The research work had been carried out with objectives to designillustrations for tops using origami technique, followed byevaluation of the illustrated tops by selected respondents. The most preferred designs were developed into prototypes and then the acceptability of designs was evaluated using the five point rating scale. Weighted mean scores for each design were calculated.

Selection of respondents:

A sample of fifty college going girls of the age group 18-25 years was selected randomly for the study. These respondents were selected to evaluate the prepared design sheets and prototypes.

■ RESEARCH FINDINGS AND DISCUSSION

The results obtained from the present investigation as well as relevant discussion have been summarized under following heads :

Development of design sheets for origami design tops:

Thirty designs for tops were designed using origami technique. Out of thirty designs, 15 designs were prepared for front bodice, 8 designs for sleeves and 7 designs for collars (Plate 1)

Evaluation of designed sheets:

The developed design sheets were evaluated on five

Plate 1: Developed 30 designs of tops

point rating scale on the basis of aesthetic appeal and uniqueness of design by selected panel of fifty respondents.Majority of the respondents appreciated the designed sheets. Design no. 4, 8, 11, 18 and 28 got 5th, 1st, 4th, 2nd and 3rd ranks respectively (Table 1). These designs were most preferred by respondents and selected for the development of prototypes.

Table 1 : Weighted mean scores of design sheets for origami design tops

Design no.	Weighted mean score	Ranking
1	4.24	X
2	4.1	XV
3	3.5	XXIV
4	4.31	V
5	4.12	XIV
6	3.78	XX
7	4.16	XIII
8	4.7	I
9	3.32	XXIX
10	3.4	XXVIII
11	4.62	IV
12	4.17	XII
13	3.52	XXIII
14	3.81	XVIII
15	3.9	XVII
16	4.25	IX
17	4.28	VII
18	4.68	II
19	3.14	XXX
20	4.27	VIII
21	3.74	XXI
22	3.41	XXVII
23	3.48	XXV
24	4.06	XVI
25	3.68	XXII
26	3.8	XIX
27	4.29	VI
28	4.66	III
29	4.18	XI
30	3.46	XXVI

Development of prototypes:

The most preferred five design sheets were developed into prototypes using origami method (Plate 2).

Evaluation of developed prototypes:

Evaluation of the origami designed tops was done by the selected fifty respondents on the basis of color, origami design and overall appearance. Five point rating scale was used for evaluation and weighted mean scores were calculated for each prototype.

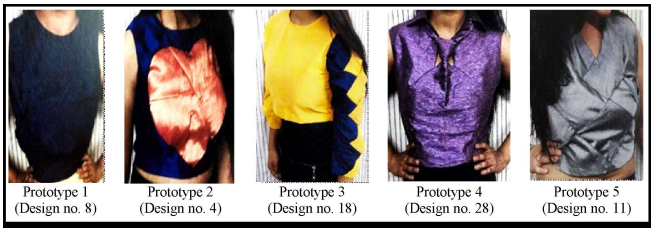

Fig. 2 : Developed prototypes

The finding shows that prototype no. 1 got 1st rank as it secure 4.96 weighted mean score and was selected by the respondents as the best design for top. Similarly, prototype no. 2, 3, 4 and 5 got 4th, 5th, 3rd and 2nd ranks respectively on the basis of their weighted mean scores (Table 2).

Table 2 : Weighted mean scores of developed prototypes

Prototype no.	Weighted mean score	Ranking
1	4.96	I
2	4.7	IV
3	4.4	V
4	4.83	III
5	4.9	II

Conclusion:

This study was conducted to create for unique and aesthetic appealing origami designs in tops. Different areas in tops were designed with origami. The consumers were ready to wear these tops in their daily life for casual wear and formal wear. The origami designs used in the development of these tops were also appreciated by the respondents. Thus, it can be concluded that incorporation of origami designs in various areas of tops were extremely liked by consumers.

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