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Pattern cutting/making course: A study on the extent of learning provided by design schools and the students' inclination towards it

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Abstract

The process of making or cutting patterns is called pattern-cutting, sometimes also called Patternmaking. The terminology is differing for everyone; college to college, city to city, country to country, but teaches the same. A pattern is a template from which the main fabric is cut and sewed to make the garments; they are usually made of paper, but they can be of fabrics too. Pattern cutting is usually done using two methods: The flat cutting method (2D) and the Draping method (3D). Under this, they can be further divided into two methods: Traditional pattern cutting and Creative pattern cutting. It is difficult to distinctly distinguish between traditional and creative methods. Every college that runs a Fashion, Textile and Apparel related design course has this subject under various names like Pattern cutting, Pattern making, Garment construction, Draping, Creative pattern cutting or Creative pattern making. The research is done with the students of India in colleges like NIFT, NID, GLS, UID who are studying or has studied under course named as Fashion/Textile/Apparel design. Study compares the extent of learning provided by colleges related to pattern cutting. Research was done questionnaire method using google forms and analysis was done using SPSS software.

***Keywords**: Pattern Cutting/Making, Design College, Fashion Design, Knowledge of Pattern Cutting/Making*

Introduction

The process of making or cutting patterns is called pattern-cutting, sometimes also called as Patternmaking; both the terminologies mean the same; they are used as per convenience. A pattern is a template (in the world of fashion it is called block or sloper or pattern) from which the main fabric is cut and sew to make the garments; they are usually made of paper, but they can be of fabrics too. Pattern cutting is usually done using two methods: The flat cutting method (2D) and the Draping method (3D). Patterns made using paper are termed as flat cutting or 2D

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method; patterns made using mannequin and fabric are termed as draping method or 3D method. A garment doesn't need to be made using a method, both methods can also be used in a combination to make a garment. Under this, they can be again divided into two: Traditional pattern cutting and Creative pattern cutting. Traditional pattern cutting includes basic patterns, dart manipulations, bias cutting, etc., and creative pattern cutting includes subtraction method, origami, upcycle, Transformational Reconstruction (TR) cutting, etc. It is difficult to distinctly place a border between traditional and creative methods. Few details of these methods are interesting and added under literature review.

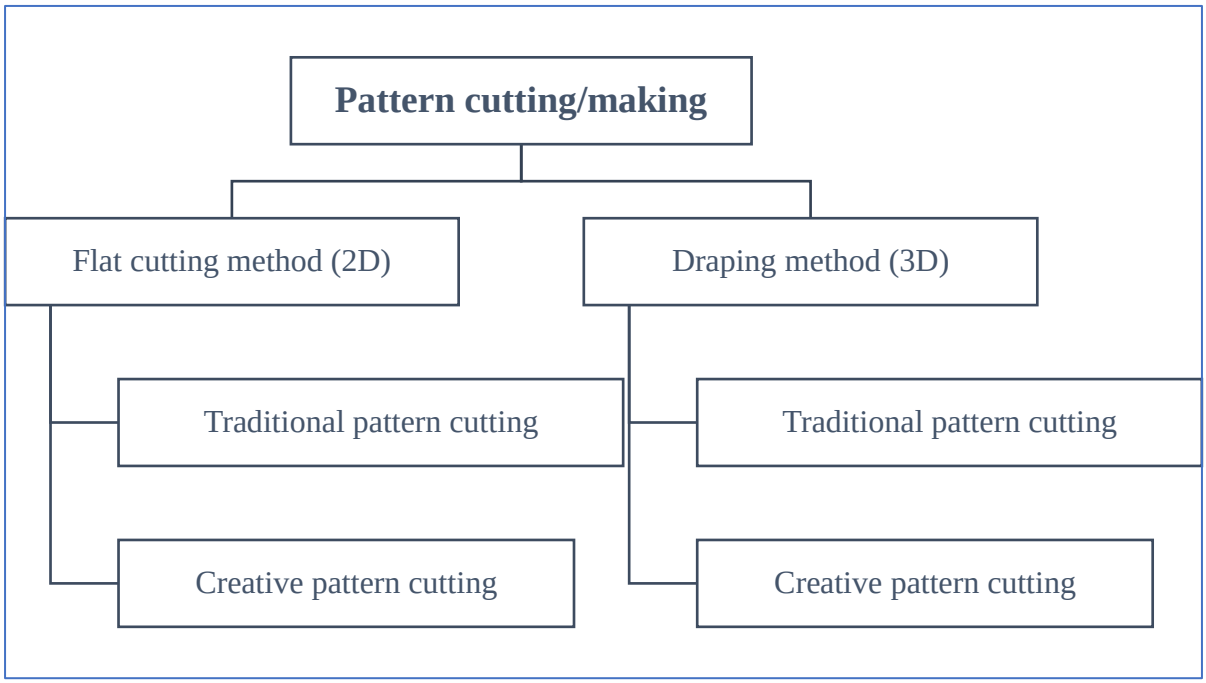

Figure 1 Pattern cutting/making

Literature review

Basics of pattern cutting

One of the methods of pattern cutting i.e., The flat cutting method uses two-dimensional (2D) paper patterns, traced, and cut on the main fabric. When fabric pieces are sewn together, it creates a garment that fits are three-dimensional (3D) human body (McKinney, Stanley, Plummer, Thompson, & Rorah, 2016).

Montgomery et al. (2016) stated "Pattern cutting is an integral part of the fashion design and garment making process."

Townsend and Mills (2013) quoted from (Goulding, 2011, p. 36), "Pattern cutting as a craft 'necessitates an understanding of the visual dialogue between the body, and of the form that covers it'. It also requires or develops the skill to interpret a fabric's fall harmonizing with the design drawn."

Pattern cutting uses body measurements like waist round, hip round, length, bust round, arm-round, armhole round, etc. to make patterns that ultimately fit a human body. It sounds mathematical but, is also a skill that can be developed while learning it. The most used method is the flat cutting method where initially basic pattern blocks/slopers are developed and same are manipulated to create the desired shape according to the design (Almond, Insufficient allure: the luxurious art and cost of creative pattern cutting, 2010).

Ahwa (2009) compared pattern cutting to a childhood puzzle game where pieces were put together to form a complete picture. He says, 'The fashion & apparel industry is a myriad of puzzles that are pieced together, and no puzzles are as big as the ones that pattern makers/cutters and pattern construction experts deal with regularly." Pattern cutting has bigger pieces of paper patterns cut on fabric which are pieced together by the sewing process to form a garment.

Courses at design colleges that teach pattern cutting

Pattern cutting and creative pattern cutting is a part of fashion/apparel/textile design course where students are taught flat pattern cutting method and draping method. There are colleges which also offer a separate course in specialisation of pattern cutting or creative pattern cutting. This course is typically offered in the form of a short-term or certificate programme, which has an influence on students' attitudes about the course since they are unaware of the critical role that these subjects play in the design process. Central Saint Martins (CSM) took the lead to initiate creative pattern cutting as a specialist course in the university education to meet the demands of fashion industry. Along with CSM, London College of Fashion and Doncaster College provide their students a Master’s degree in creative pattern cutting field. The degree acts as an extension to their undergraduate course and helps them increase knowledge in the similar domain. (Tan & Chon, 2016)

Colleges like National Institute of Fashion Technology (NIFT) name their course as Fashion design, Textile design, Fashion technology; National Institute of Design (NID) calls it Apparel design, Textile design; Symbiosis Institute of Design calls its Fashion Design; GLS Institute of Design (GLSID) call it Apparel design; few college also name it as Fashion and Apparel design, Fashion and textile design, Textile and apparel design.

Fashion education

Pattern cutters have never been praised for designs on the runway, it is the designers who are given credits instead. Pattern cutters are the ones that bring the designs from on-paper to on-fabric. Fashion education also present pattern cutting as secondary or by-product of fashion design. Pattern cutting subject is also considered to be metric or technical to make patterns. They may, however, be as inventive as a fashion designer when it comes to designing. Every college has traditionally marketed fashion design students as designers as a career route. When students join this course, they have a mindset that they are going to be 'The designer' and not 'The dressmaker' or 'The pattern cutter'. It is also one of the reasons that pattern cutting course is not being fully utilised. In Asia, fashion education is always looked down to as an inapplicable or inappropriate career for youths. Older generations never considered fashion design as a suitable career. Fashion design in Asia was always treated as vocational course. Factors like practical approach, high cost of education, low salaries, has negatively impacted this field. (Tan & Chon, 2016).

Haute couture garments for The Crowns were made by sending them miniatures of gowns decked up in a doll. Education was also done garmenting the doll and teaching pattern cutting with dolls. The Chambre Syndicale de la Haute Couture was formed in 19th century to give a formal education in fashion design field. The Ecole de la Chambre Syndicale de la Couture Parisienne originated in 1927 as a universally recognised institution. The field of fashion design and business has taken shape all over the world and is now functioning internationally, in its own unique form. It has now taken several forms and bloomed from informal education to formal education that provides degree course, vocational training, etc. West Europe is surrounded by over 100 colleges that offer formal courses titled as fashion design, fashion business, and fashion photography. Title of Pioneer centres of international fashion stands still with London, Paris and Milan. Scandinavia's rich craft tradition still flourishes through its

various universities and art schools. US is considered the powerhouse of fashion. Fashion is present all over the globe but is tremendously active in China, Japan and Korea. (Hegland)

Books related to pattern cutting

Earlier the books that were written were based either on metric or home sewing methods. Recently the books published are on contemporary and creative silhouettes. It uses a few guiding steps of basic pattern block/sloper and turns it towards an innovative silhouette of garment, maintaining the balance of traditional as well as creative pattern. These books now emphasize more on techniques rather than stringent metric or mathematical methods (Hardingham, 2016).

Tomoko Nakamichi's series of books titled 'Patter Magic' has altered pattern-cutting perception from being technical to innovative. She has maintained the balance of being too technical or too creative/innovative.

We have various books like Pattern Making for Fashion Design - Helen Joseph Armstrong, Metric pattern cutting for Women's wear and mens' wear - Winifred Aldrich, Pattern Drafting for Dressmaking - Pamela C. Stringer, Pattern magic – Tomoko Nakamichi, Zero Waste Fashion Design - Holly McQuillan and Timo Rissanen.

Historic garments were made with all the minute details, and we find many books specifically made to showcase how to make the patterns of those garments. No written literature or book of patterns is found 1760 AD. (Almond, The status of Pattern Cutting, 2016)

Expressions about traditional/creative pattern cutting students, designers, and pattern cutters

The study quotes many people associated with pattern cutting. They are expressing their views on traditional pattern cutting or creative pattern cutting.

Designer Rei Kawakubo from Comme des Garcons urges her pattern-cutting team to make deliberate mistakes. As a result, these mistakes help them to think out of the box and create innovative silhouettes by giving new cuts and creating astounding garments. Efforts of Rei Kawakubo were also telecasted on the BBC television program, 'Undressed Fashion in the Twentieth Century.' High prices of garments were defined by the mistakes they made by

justifying it as a creative and innovative garment. (Almond, Insufficient allure: the luxurious art and cost of creative pattern cutting, 2010)

Almond (2010) stated Hayley Carroll (Custance, personal communication, 2009), “Creative pattern cutting enables me to explore new techniques and investigate ideas to challenge shape, cut and silhouette that leads to ideas. New ways of cutting come to life through a mixture of ideas, luck, and mistake. I can produce patterns onto paper or model on the stand. Creative pattern cutting is vital when designing, innovative, boundary-breaking garments.”

Almond (2010) explained one of his student Tina's works where she had sewn shoulder seam with side seam by breaking the stereotypical stitching method to create a new silhouette of the garment. This idea is considered under creative pattern cutting and it does not even incur any major cost. This could be used for mass production as no creative cuts or shifting on seam lines is found.

Almond (2010) quoted (Fischer, 2008, p.25), she says, “Like all craft skills, pattern cutting can at first seem difficult and intimidating but with a basic understanding of the rules to be followed (and broken!) the aspiring designer will soon learn interesting, challenging, and creative approaches to pattern cutting.” Paper again quotes Annette Fischer, “Designers who have been cutting patterns for 20 years can still learn something new, the process of learning never stops” (Fischer, 2008, p25). The paper also mentions that pattern cutters must think differently when mass production is taken into consideration. Pattern cutter must see whether the approach fits well for mass production. They must take it as a challenge and apply a realistic approach to it.

Ahwa (2009) quotes Baily, 'In the design/pattern making area there are definite technical people and definite creative people. I feel that pattern making must come as a natural thing to someone for them to become proficient at it. The younger generation has the computer skills but often not the manual practical pattern skills -- that's where I like to swap the teaching a little.'

Objective

The research is concerned with students and the colleges that teach pattern cutting/making course. Objectives of this research are:

1. To understand the interest of students to learn pattern cutting/making related subjects
2. To know the approach of colleges towards pattern cutting/making related subjects.

Methodology

Research is done using mixed method but inclined towards qualitative research. Secondary study was done studying various articles and journal papers related to pattern cutting. Primary study is carried out by circulating questionnaire through google forms. Descriptive analysis is done using frequencies from the data collected. A comparison of students and colleges is made in order to determine what is taught at each college.

Findings and Conclusion

Students who learn pattern cutting under their discipline were approached to fill the questionnaire from various colleges like National Institute of Fashion Technology (NIFT), National institute of Design (NID), GLS Institute of Design (GLSID), Unitedworld Institute of Design (UID). After receiving the data, data entry was done on SPSS software version --------. Data was analysed using the same software.

Response from 51 students were received. 17 responses were received from NIFT, 28 responses were received from GLSID, 1 response was received from UID, and 5 responses were received from SOFT. Age groups from 18-22, 23-27 and 28-32 answered. Please see Table 1 for the division. Table 2 provides a more complete breakdown of the factors.

Test of normality was calculation using SPSS software. Table 3 shows Kolmogorov-Smirnov and Shapiro-Wilk test done on variable 'Course', p-value is < 0.05, data is not normally distributed. Table 4 shows Kolmogorov-Smirnov and Shapiro-Wilk test done on variable 'Year of college', p-value is < 0.05, data is not normally distributed. As data is > 30 and not normally distributed for both the independent values, non-parametric tests are carried out.

From the data shown in Chart 1, the seams can be ranked from most taught to least taught. Plain seam is most taught seam, followed by French seam, flat felt seam, Edge seam, Hongkong seam, Piping, Tuck seam, Cording and least taught Fagoting seam. Few other seams taught are Lapped seam, Ladder seam, Double top seam, Top seam, Mock French, Tailor's edge seam, Bias bound, Pinked and stitched seam, Crochet edge and Lace seam. The name of above seams

mentioned are found based on the written responses. Few seam types written by respondents were already mentioned in the questionnaire.

From the data shown in Chart 1, the pockets can be ranked from most taught to least taught. Patch pocket is most taught, followed by Patch pocket with flaps, Welt pocket, Cross pocket, Inseam pocket, and least taught is Denim pocket. Few other pockets taught are Pleated pocket and Box pleat pocket. Few seam types written by respondents were already mentioned in the questionnaire.

From the data shown in Chart 1, the necklines can be ranked from most taught to least taught. Both the necklines are taught almost equally. Few other necklines taught are boat neckline, without fusing. Few neckline types written by respondents were already mentioned in the questionnaire.

From the data shown in Chart 1, the collars can be ranked from most taught to least taught. Shirt collar is most taught collar, followed by Mandarin and flat collar. Few other collars taught are Notch collar, Cowl collar, Shawl collar, Crew collar, Inverted collar, Jacket collar, and Ruffle collar. Few collar types written by respondents were already mentioned in the questionnaire.

From the data shown in Chart 2, the cuffs can be ranked from most taught to least taught. Round cuff is most taught cuff, followed by Square cuff and Notch cuff. Few other cuffs taught are French cuff, Double French cuff, and Roll collar. Few cuff types written by respondents were already mentioned in the questionnaire.

From the data shown in Chart 2, the plackets can be ranked from most taught to least taught. Shirt placket is most taught placket, followed by kurta placket and sleeve placket. Few other plackets taught are Concealed placket, Ruffle placket, Skirt placket or belt and Trouser placket or belt. Few placket types written by respondents were already mentioned in the questionnaire.

From the data shown in Chart 2, the sleeves can be ranked from most taught to least taught. Short sleeve is most taught sleeve, followed by Long sleeve, Shirt sleeve, Cap sleeve and Extended shoulder sleeve & blazer sleeve. Few other seams taught are Kaftan sleeve, Raglan sleeve, Petal sleeve, Dolman sleeve, Petal sleeve, Lantern sleeve, Puff sleeve, Bell sleeve Circle sleeve, Leg-o-mutton sleeve, Biker sleeve, Panelled sleeve, Kimono sleeve, and Bishop sleeve. Few sleeve types written by respondents were already mentioned in the questionnaire.

From the data shown in Chart 2, the garments can be ranked from most taught to least taught. Dart manipulation is most taught, followed by Style-lines, Shirt – men/women, Pant – men/women, Bias cut dress, Corset and Blazer.

A comparative chart of NIFT and GLSID is formed using Excel sheet (Chart 3 & Chart 4). Total students who responded from NIFT are 17 and from GLS are 28. Number of students do not matter for this comparison, a student who exactly knows what is taught in the college is sufficient for the comparison. A graduated student from both the colleges were asked these questions in person. Student A is a NIFT pass-out and Student B is a GLSID pass-out. **An overall survey found that NIFT teaches a many variations and techniques of pattern cutting while GLSID focuses on teaching basics to the fullest missing out on creative aspect of pattern cutting.**

Every college teaches womenswear in majority, kids-wear and menswear are taught in workshop or as a module. As we can see interpret from ranked means in Table 5, seams are taught first in every college, everything else like neckline, sleeve, pocket follows later. As observed in Chart 5 draping and metric are the two common method that are taught in colleges along with introduction of other methods in the form of workshop or module. No other method was written in the descriptive answer.

21 students responded neutrally towards liking of pattern cutting/making. 22 students responded they agree that pattern cutting helped them design garment differently. 26 students feel that it is not only tailors' job to know pattern cutting. 39 students think that knowledge of pattern cutting/making is important for designers. 18 students are neutral, and 18 students feel that pattern cutting/making is difficult to learn or understand. 17 students are again neutral when asked about college giving importance to pattern cutting/making but 26 students felt no importance was given to this subject. 26 students said workshops are arranged for the subject, 13 were neutral about it. (Chart 6 to Chart 12)

Pattern cutting/making is a subject that students agree is necessary to learn, but they despise it because it is too technical or mathematical for them. They also understand that not only tailors but also designers must learn it, but that it is difficult for them to do so. When replies are more on the neutral side, they might be interpreted as a dislike of pattern cutting.

Further scope of study

This study has 51 respondents and is unevenly distributed. Further the study can have more respondents and evenly distributed data to test it with parametric test. Further study can also involve faculties of college and tailors to form a correlation between all the responses. The study will reach out to every person associated with pattern cutting giving a much more meaningful outcome to the objectives.

Annexure of Tables & Charts

		College				Total
		NIFT	GLS	UID	SOFT	
Age	18-22	15	24	1	0	40
	23-27	1	4	0	2	7
	28-32	1	0	0	3	4
Total		17	28	1	5	51

Table 1 Age x College

		Current year in college						Total
		2nd Year	3rd Year	4th Year	Master student	Alumni (B. design)	Alumni (M. design)	
Age	18-22	5	18	8	3	6	0	40
	23-27	0	1	1	0	4	1	7
	28-32	0	0	0	1	1	2	4
Total		5	19	9	4	11	3	51

Table 2 Age x Current year

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Course	.364	51	.000	.633	51	.000

Table 3 Test of normality – course

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Course	.364	51	.000	.633	51	.000

Table 4 Test of normality – Year in college

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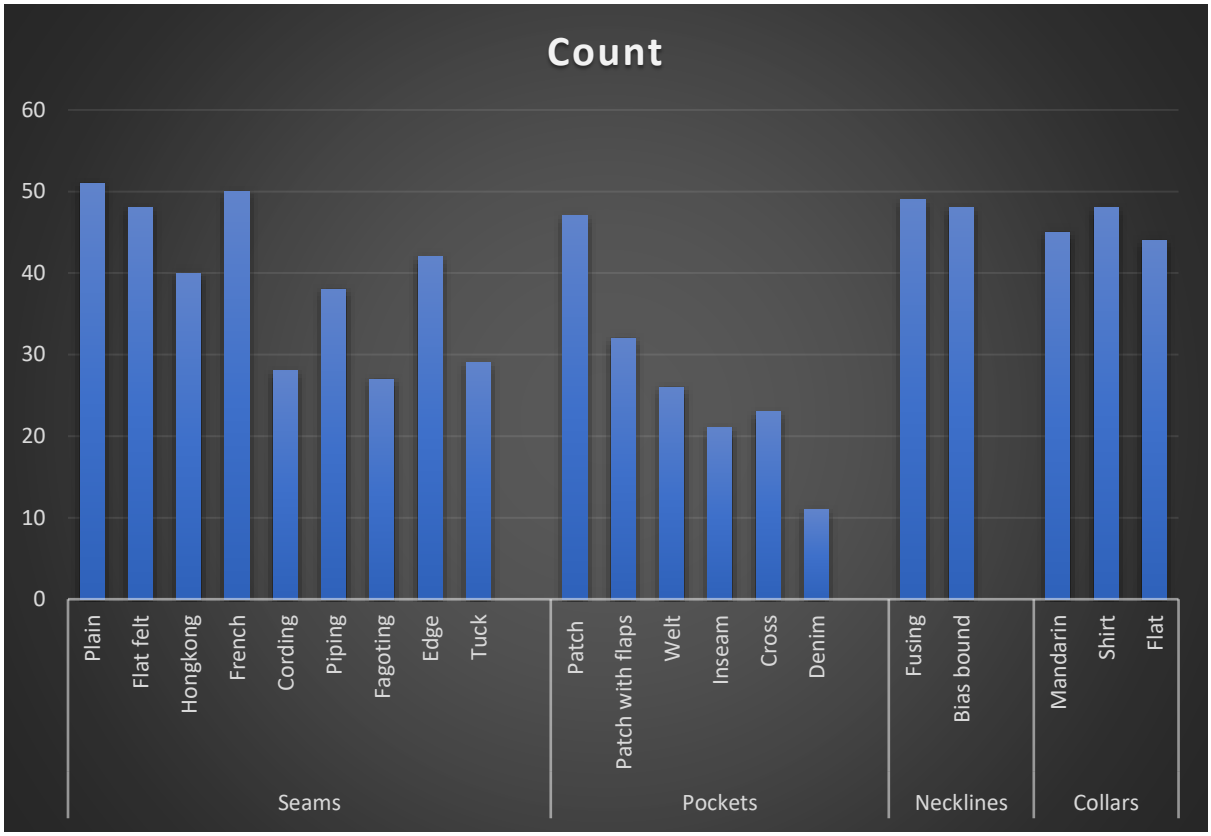


Chart 1 Frequency count for Seams, Pockets, Necklines and Collars

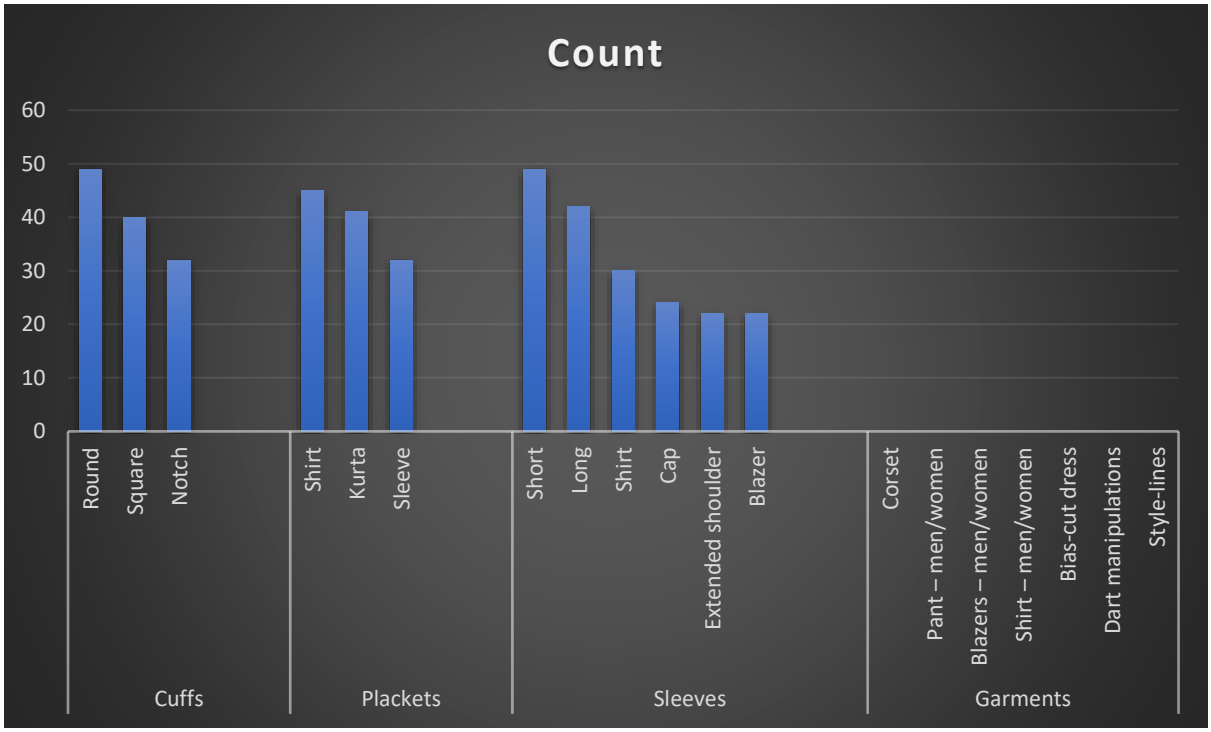


Chart 2 Frequency count for Cuffs, Plackets, Sleeves and Types of garments

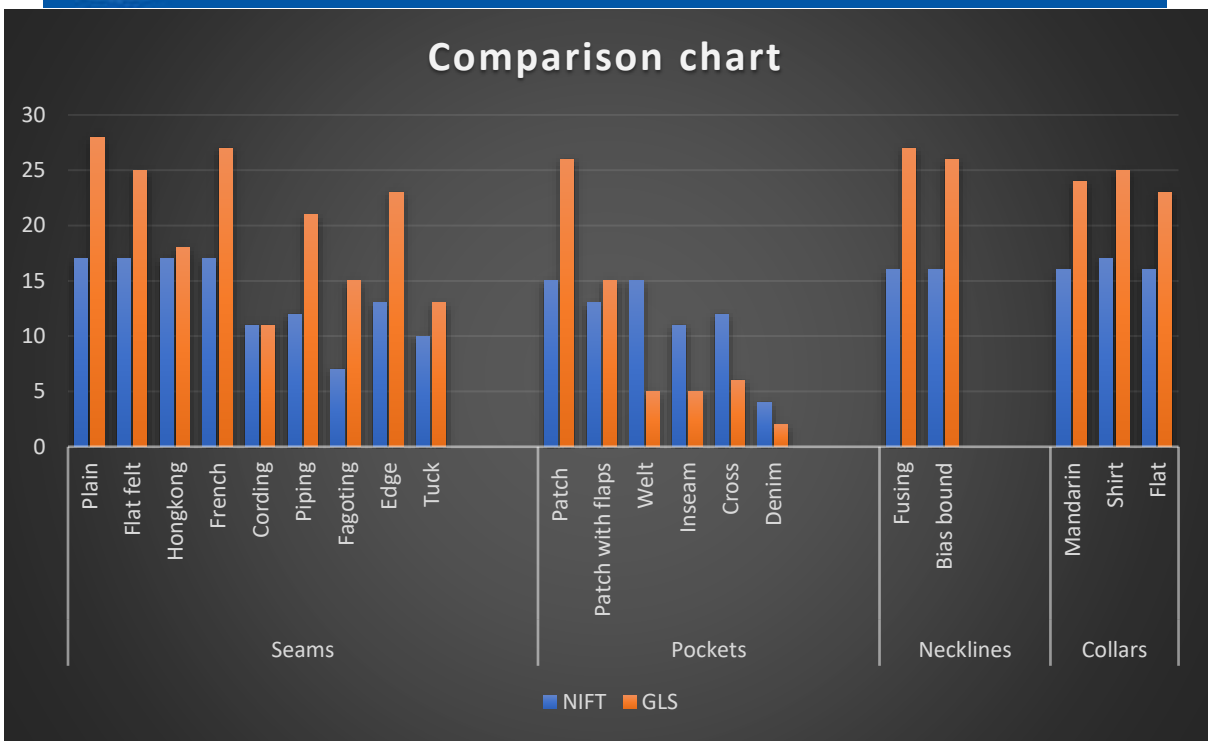
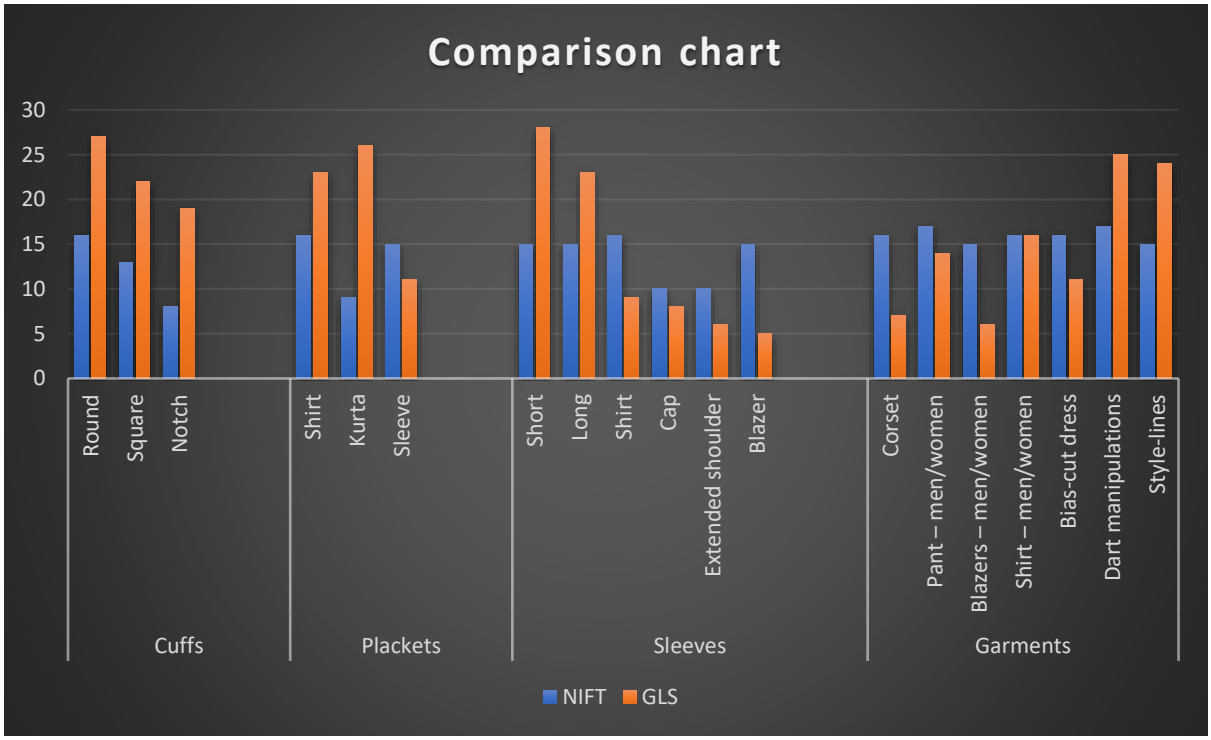


Chart 3 Comparison of NIFT and GLS college for various element



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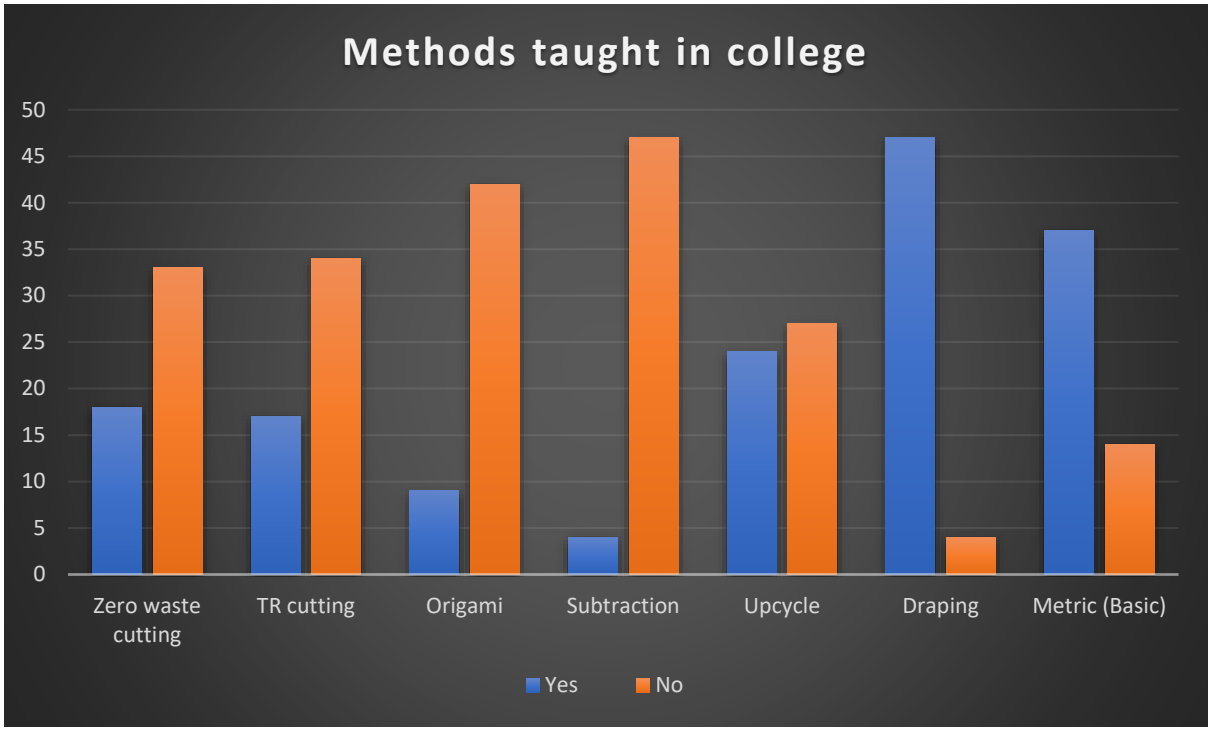

Chart 5 Methods taught in college

	Mean Rank
Seams	1.22
Collars	4.80
Sleeves	4.08
Plackets	4.47
Cuffs	5.61
Necklines	3.35
Pockets	4.47

Table 5 Mean Rank of elements

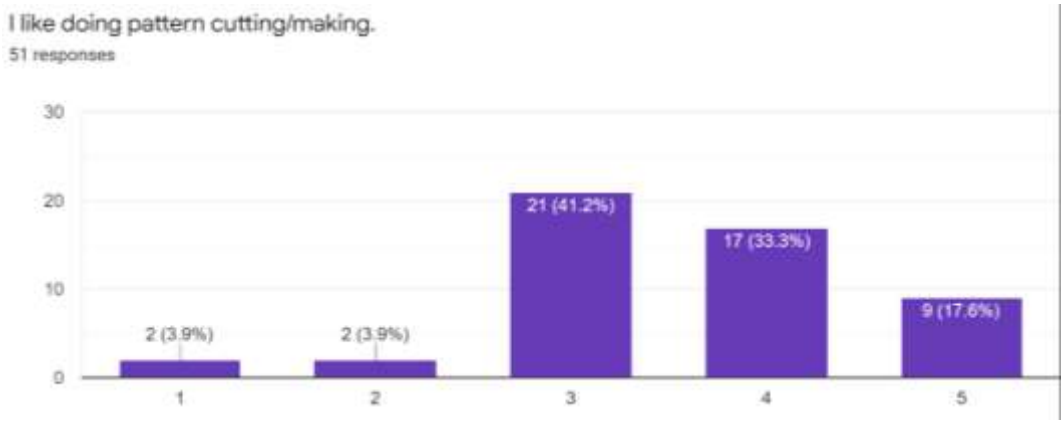

Chart 6 Likert scale

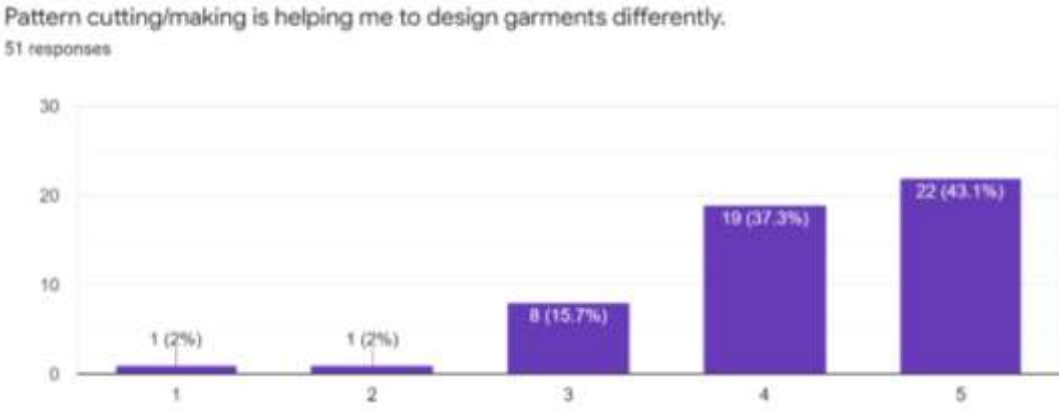

Chart 7 Likert scale

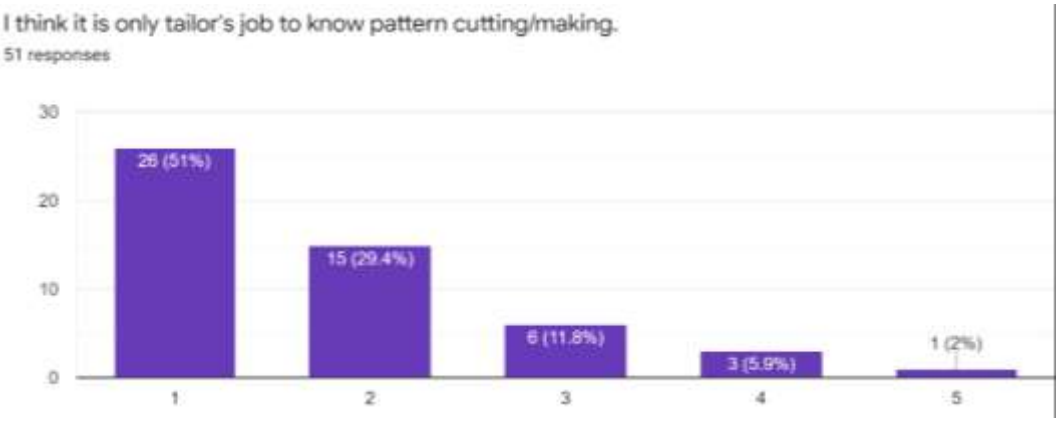

Chart 8 Likert scale

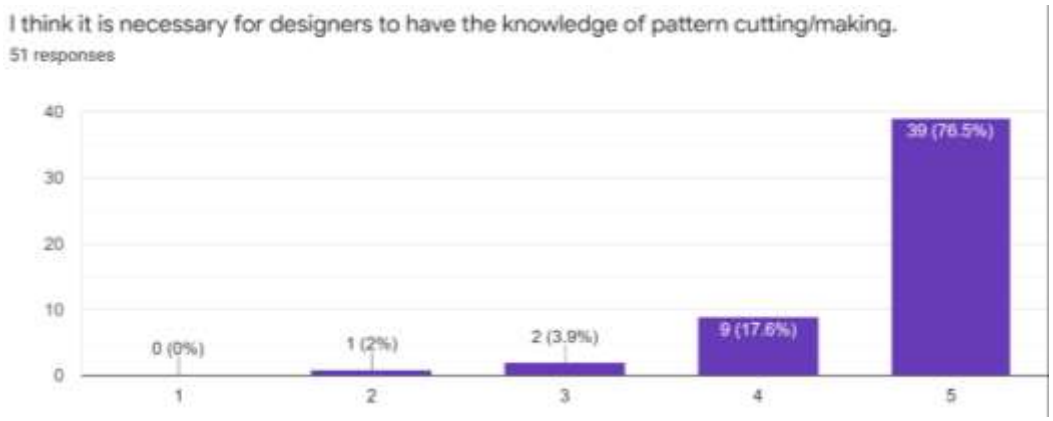

Chart 9 Likert scale

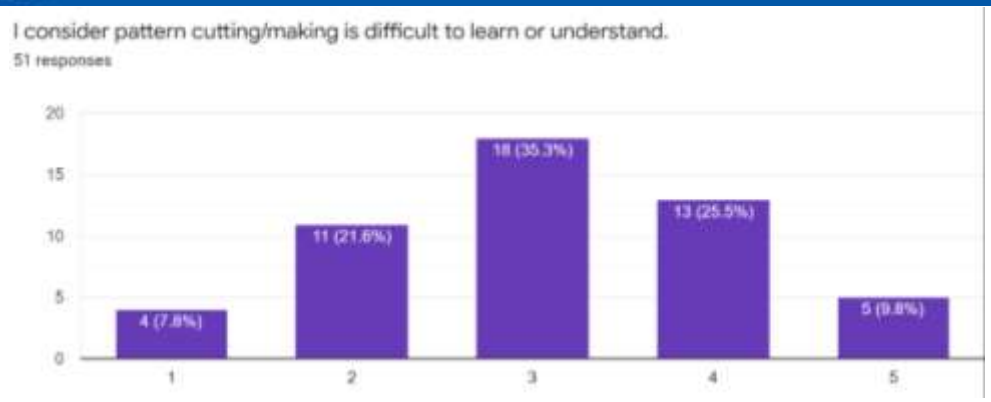

Chart 10 Likert scale

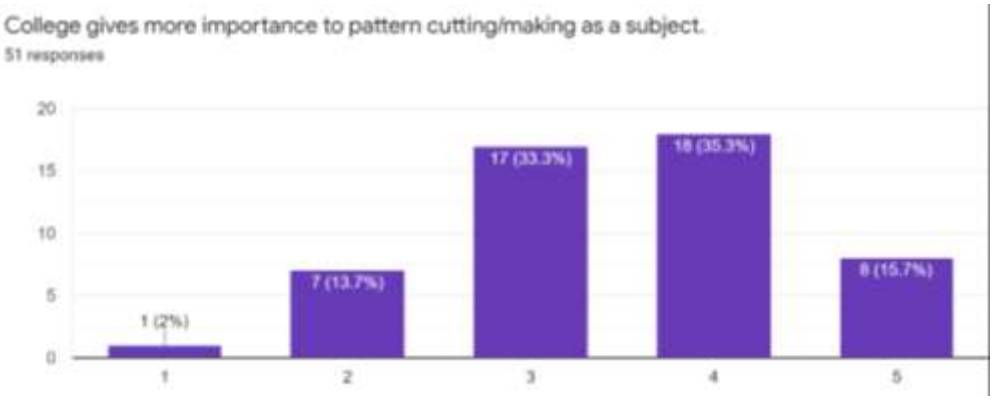

Chart 11 Likert scale

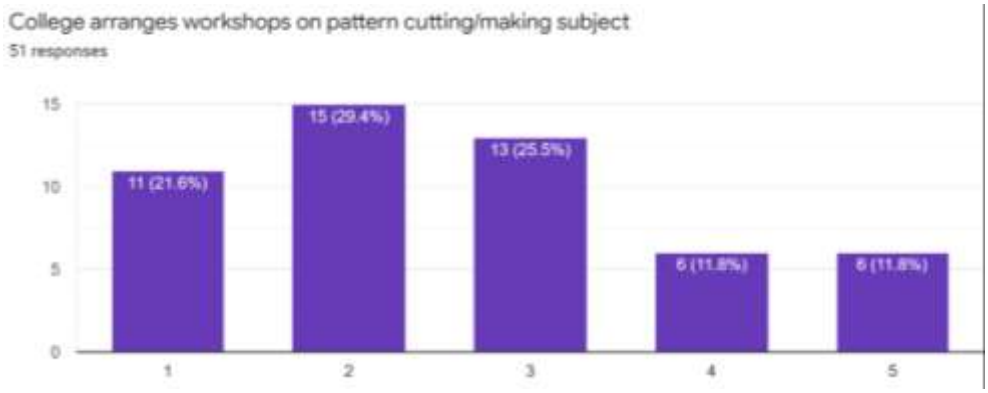

Chart 12 Likert scale

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