

A Study for the Development of a Tailored Jacket Pattern for the Chinese Adult Women⁺

– Focused on the women in their early 20s in Shanghai –

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Abstract

For the purpose to develop the pattern of a tailored jacket for the Chinese adult women, a drawing method for the pattern of a tailored jacket was selected with the style of 'on&on', a young and casual brand of Beaucre Merchandising Co., Ltd. that has been successful in the China market, and then the measures to be applied were set up by properly combining the body measures such as the mean, mode and median of the entire group from data measured from women of 18 to 24 years old in Shanghai, China in 2008 and the mean body measures of the body type A of 2008 classified by GB/T 1335.2-1997. The pattern of a tailored jacket developed was verified for feasibility based on a wearing test and then revised for the parts with low jacket ability in general including the bust circumference, waist circumference, hip circumference, shoulder, waist back length and back area. The final measures applied for the development of a tailored jacket were 160-165cm for the height, the bust circumference of 87.7cm, waist circumference of 69.6cm and hip circumference of 92.8cm for a jacket.

Key Words : GB/T 1335.2-1997, Body type A, Bodice basic pattern, Tailored jacket pattern

1. Introduction

China, since entering in WTO in 2001, has settled the market economic system as the international domestic investment strategic area,

not being the simple processing base, through decrease of the customs duty barrier, improvement of all the laws, the regulations and etc., meeting the global standards, and it is being promoted to advance the industrial structure

⁺ This Paper is an excerpt from the doctoral dissertation.

as 2008 Peking Olympic, 2010 Shanghai Expo and etc. became the opportunity.

It is expected that as the consuming market share of China emerging as the second consuming market exceeding Japan, has been increased up to 22% in 2010, it will not show so big difference being compared with USA occupying 35% at present¹⁾, and it is expected that China will become the biggest consuming market exceeding USA in 2017. The rapid change of the consuming structure and type from the income increase and the increase of the middle class have promoted developing the clothing market as it requires the desire satisfaction in the psychological satisfaction and the self-satisfaction being apart from the satisfaction of the basic life desire.

As the level of the production quantity, quality, style, pattern, production technology, facility, management and etc. of the Chinese women's clothing has also improved, it can do OEM for all kinds of internationally named brands, but as most of Chinese clothing manufacturers are still the family-type companies, they can not adapt to the rapid change of the consumers and the markets, and as the design part also shows the considerable difference from the advanced countries of the clothing, the overseas brands have mostly occupied the deluxe market of the Chinese women's clothing. Of course, the domestic brands have taken the initiative for most of clothing products in the major department stores, but the market shares of the foreign capitals or the partnership brands are high in the women's clothing, and the brand with possibility to advance in the overseas is very rare.²⁾

Meanwhile, the female consumers of China are being individualized, diversified and modernized more and more. As for the consumer confidence,

the values giving the importance to the consumption has been formed from the thrift and saving mood through the reform and opening and economic development. They show the trend that they purchase the clothing product pursuing their own taste and character, and that they purchase not only the specific brands but also various brands in this relation. Also, as the purchase preferring the local brand is changed to the one preferring the foreign brand by contacting the western brands and the high quality of service relative to the open-door policy, the purchase enjoying the advanced service is presently increasing, but the Chinese consumers easily make the converted purchase if there is any similar brand rather than they purchase the specific brand (Purchase with the high loyalty).³⁾

Therefore, domestic clothing companies, after surveying the economic/social environment, 56 nations, various regions and cultures and etc., shall select the detailed variables to grasp the characteristics of the Chinese consumers, and establish the obvious positioning strategy. Especially, in order to be equipped with the competitiveness in the women's clothing having 65million women of high income, these companies shall take the priority in the deluxe market of China occupied by the foreign brands as they are equipped with intensification of the product capability and etc. through the thorough survey for the body type of Chinese, development of the pattern from the difference of the body type relative to the area and development of the individualized/differentiated design.

The precedent research for the Chinese adult female as of today lies in the purchase status of the consumer⁴⁾⁵⁾, characteristics of the body type⁶⁾⁷⁾, clothing dimension⁸⁾ and etc. However,

as the jacket is the style, which the female in white color being applicable to the management/office clerical/sales position are mainly wearing in the women's clothing market, it requires the high fitness above all, but the research for the jacket pattern of the Chinese adult women has not been nearly made.

This research is purposed to present the standards to increase the quality and the fitness of the clothing by studying the jacket pattern of the Chinese adult women experimentally. For this, this research wants to extract the female in 20s residing in Shanghai, China as the representative group and to develop the pattern that is the factor to decide the fitness, and in order to acquire the data, method, outstanding matter and solution being required in this relation, this research was executed by selecting 'on&on' of Beaucre Merchandising Co., Ltd. as the joint research company.

II. Methods

1. Production of test clothing

1) Selection of design

As the design of the test to develop the jacket for this test, the shoulder one-button jacket of the

princess line, which the Chinese female prefers and becomes the most basic style, through the precedent analysis results for the consumer status⁹⁾ and the characteristics of the test clothing is as per <Table1>.

2) Method of the Tailored Jacket Pattern

The drawing method used in development of the jacket pattern for this research followed the bodice basic pattern and the drawing method for the jacket pattern that are used in 'on&on', brand of the female clothing for the young casual of Beaucre Merchandising Co., Ltd. which owns the core technology in the clothing production field after advancing in China in September, 1999.

3) Fixing of Application Dimension

The application dimension used to draw the jacket pattern of 'on&on' style, referred to the body measurement data of the female in 18-24 year-old residing in Shanghai, China. Namely, it was fixed as per <Table2> by extracting the average value, average deviation, median and mode from the body dimension of the whole group and the one of 'A' body type group, which the drop (Different dimension between bust and waist measurement) belong to 14~18cm.

<Table 1> Design analysis of the Tailored Jacket

	Design Analysis
Bodice	- Shoulder Princess Line
	- Fitted jacket style
	- Basic Notched Lapel
	- Button Position: Waistline
	- Pocket: Welt Pocket with Flap
Collar	- Notched Collar
Sleeve	- Two piece Sleeve



<Table 2> Application Items and 1st application dimension

(unit: cm)

Application Item			2008 Body dimension of 'A' Type	1 st application dimension	Difference of dimension	
			●	◇	●±◇	
Bodice (9)	Circumference	Upper bust	82.3	84.5	●+2.2	
		Bust	83.7	85.0	●+1.3	
	Length	Waist back	36.6	37.0	●+0.4	
		Neck shoulder point to breast point	25.8	25.0	●−0.5	
		Neckpoint to breast point to waistline	39.6	40.0	●−0.3	
		Bust point−bust point	18.7	17.0	●−2.3	
		Intersyce, front	32.0	32.5	●+0.5	
		Intersyce, back	36.2	36.5	●−0.1	
		Across shoulder/2	19.2	19.0	●−0.2	
Tailored Jacket (15)	Bodice (13)	Circumference	Upper bust	82.3	84.5	●+2.2
			Bust	83.7	85.0	●+1.3
			Waist	67.4	67.0	●−0.4
			Hip	90.3	90.0	●−0.3
		Length	Jacket Length	–	63.5	–
			Waist back	36.6	37.0	●+0.4
			Neck shoulder point to breast point	25.8	25.0	●−0.5
			Neckpoint to breast point to waistline	39.6	40.0	●−0.5
			Bust point−bust point	18.7	17.0	●−1.7
			Intersyce, front	32.0	32.4	●+0.4
			Intersyce, back	36.2	36.5	●−0.2
			Across shoulder/2	19.2	19.0	●−0.2
			Waist to hip	22.0	22.0	–
	Sleeve (2)	Circumference	Wrist	14.7	25.0	●+7.1
		Length	Arm	54.1	58.0	●+5.9

4) Wearing Test Materials

As the outshell material used for the test clothing of the jacket, the blended fabric consisting of 100% of cotton in middle thickness and 60% of wool/40% of polyester were used, and as the lining material, the fabric of 100% of

polyester was used. As for the bodice basic pattern, the cotton material was used in 3 times of wearing tests, and the wearing test was performed as the cotton material was used for 1st and 2nd test, and the wool-blended material was used for 3rd and 4th test, and the property of the test material is as per <Table3>.

<Table 3> Physical Property of Materials in Test

Type	Div.	Organi- zation	Weight (g/m ²)	Thickness (m/m)	Density(Thread/5cm)	
					Warp	Weft
Shell	Cotton100%	Plain	148.9	0.337	119.2	109.5
	Wool60%/ Polyester40%	Twill	241	0.47	220	180
Lining	Polyester100%	Plain	60.9	0.25	191.6	182.2

2. Wearing Test

1) Test Period and Place

The wearing tests were made total 7times, namely, 3times of bodice basic pattern and 4times of verifications for the propriety of the jacket pattern in the clothing composition research room of Sookmyung Women's University and the clothing academy professor's research room of Donghua University in Shanghai, China, development room of Beaucre Shanghai and etc. The finally-developed pattern went through the verification procedure of the professor majored in the clothing composition of Sookmyung Women's University, the professor of Donghua University in Shanghai and the development director of Beaucre Shanghai-Stage89.

2) Selection of Test Subjects

As for the test subjects, the whole group in the data measured for the females in 18 to 24 year-old residing in Shanghai, China in 2008¹⁰⁾ and the technical statistical analysis results of Body Type 'A' that is classified in the standard body type as per the body type classification method of GB/T 1335.2-1997, and the female college students belonging to the extent of the standard deviation being centered in the average dimension of the major body parts were selected as the test subjects. The 1st and 2nd

bodice and jacket test clothing were made for Korean female college students, and the 3rd and 4th wearing tests, which were corrected/supplemented through 2 times of wearing tests, were made for 4 female college students of Donghua University in Shanghai, China.

As for the items of the body dimensions of the test subjects, total 74 items such as 17 items for height, 11 ones for width, 9 ones for thickness, 13 ones for girth, 21 ones for length, 2 ones for angle, weight and etc., were fixed. As for the distribution, the height of 6 test subjects is 158.5~162.8cm, the breast girth is 82.8~84.3cm, waist girth is 66.3~67.1cm and hip girth is 89.8~90.9cm, and as the drop value (breast girth - waist girth) is 15.9~17.3cm, the test subjects of this research belong to Body Type 'A', which is the standard body type as per GB/T 1335.2-1997<Table4>.

3) Selection of Inspector

The inspectors for 1st and 2nd wearing tests were consisted of totally 6 persons, namely, 5 clothing composition experts and the production director of Beaucre Merchandising Co., Ltd. and the 3rd and 4th wearing tests and the verification for the finally developed pattern were consisted of each one professor of Sookmyung Women's University and Donghua University in Shanghai, China, who are majored in the clothing composition

<Table 4> Body size of test subjects for wearing test

(unit: cm)

Measuring Item			Measuring value of Type A of Chinese overall 20s in 2008		Measuring value of Korean female college students		Measuring value of Chinese female college students			
			M	SD	A	B	C	D	E	F
Height (17)	1	Stature	160.5	5.2	161.5	162.8	160.8	161.8	158.5	162.1
	2	Menton Height			138.6	138.5	137.5	140.2	137.5	141.0
	3	Anterior Neck Height	130.6	4.9	129.7	130.0	130.5	131.9	130.2	132.8
	4	Chest Height	123.6	4.7	121.8	122.6	120.2	122.5	121.3	124.1
	5	Bust Height	114.2	4.6	116.3	116.3	113.6	113.5	114.1	116.2
	6	Under bust Height	108.8	4.5	108.0	110.6	108.4	108.5	109.6	111.0
	7	Waist Height	100.5	4.1	101.1	101.5	101.1	99.1	100.4	103.8
	8	Waist Height (Omphalion)			92.8	96.7	96.5	94.1	93.0	96.0
	9	Lateral Neck Height	134.6	4.9	134.7	136.0	134.1	136.8	134.1	137.7
	11	Shoulder Height	130.0	4.7	130.5	131.5	128.8	132.1	129.5	132.5
	12	Axilla Height			119.8	120.4	116.7	120.9	119.5	120.9
	13	Elbow Height			100.6	101.7	99.3	103.5	98.5	102.9
	14	Wrist Height			78.5	77.7	77.5	80.8	78.1	81.0
	15	Dactylion Height			61.5	60.5	62.1	63.1	60.0	64.3
	16	Cervical Height	135.4	4.8	136.5	137.8	135.3	137.0	135.1	138.4
	17	Hip Height	80.1	4.2	81.8	80.3	78.7	77.1	77.1	79.8
Breadth (11)	18	Neck Breadth	13.5	0.6	12.6	12.8	13.4	12.2	12.2	12.5
	19	Bishoulder Breadth	34.6	1.3	35.8	34.8	33.5	32.8	33.8	32.3
	20	Bideltoid Breadth	40.7	1.8	40.0	41.7	39.5	39.1	39.8	40.0
	21	Chest Breadth	28.3	1.6	28.0	27.5	27.0	27.4	27.6	28.1
	22	Bust Breadth	26.5	1.5	27.0	26.6	26.0	27.6	24.7	27.1
	23	Under Bust Breadth	25.2	1.4	24.9	24.5	24.4	25.1	24.3	25.0
	24	Waist Breadth I (Natural Indentation)	23.7	1.7	22.9	22.7	23.4	23.1	22.7	23.3
	25	Abdomen Breath	29.6	2.0	28.5	28.5	28.1	28.5	28.8	29.4
	26	Hip Breath	32.4	1.6	32.8	32.6	33.2	32.3	32.5	32.4
	27	Wrist Breath			4.7	4.8	5.2	5.0	5.1	5.1
	28	Wrist Breath			8.5	8.5	8.7	9.7	8.2	8.4
Depth (9)	29	Chest Depth, standing	17.3	1.2	18.2	17.5	17.4	19.2	17.9	18.0
	30	Bust Depth	21.5	1.8	21.9	20.8	21.3	22.5	22.0	22.0
	31	Under Bust Depth	18.2	1.5	17.8	18.0	18.3	18.7	18.4	18.8
	32	Waist Depth (Natural Indentation)	17.6	1.5	17.3	16.8	18.3	18.1	18.3	18.1
	33	Abdomen Depth	19.9	1.8	19.5	18.5	18.6	19.0	19.0	20.9
	34	Hip Depth	21.3	1.6	20.0	19.7	21.5	21.5	20.5	21.8
	35	Armscye Depth	10.2	1.0	9.9	10.5	10.8	9.7	9.5	10.6
	36	Elbow Depth			6.3	6.1	6.4	5.6	5.8	5.9
	37	Wrist Depth			3.4	3.6	3.8	3.8	3.8	4.0

※ The vacant space among the data of 2008 is applicable to the items that the measurement is not made.

<Table 4> Continued

(unit: cm)

Measuring Item			Measuring value of Type A of Chinese overall 20s in 2008		Measuring value of Korean female college students		Measuring value of Chinese female college students			
			M	SD	A	B	C	D	E	F
Circumference (13)	38	Neck Base Circumference	39.7	1.5	37.0	36.5	36.5	37.1	36.5	37.1
	39	Chest Circumference	82.3	4.5	81.8	81.5	81.5	82.3	82.8	82.7
	40	Bust Circumference	83.7	5.1	82.8	83.0	83.0	83.3	83.5	84.3
	41	Underbust Circumference	73.1	4.1	72.0	71.7	72.5	72.6	72.8	73.0
	42	Waist Circumference	67.4	4.9	66.5	66.3	67.1	67.0	66.6	67.0
	43	Abdomen Circumference	79.9	5.7	81.2	78.5	78.0	78.1	78.3	81.3
	44	Hip Circumference	90.3	4.6	90.5	90.0	90.0	89.8	89.8	90.9
	45	Arm scye Circumference	36.8	2.3	37.2	36.3	37.2	37.2	36.4	36.8
	46	Upper Arm Circumference			26.0	25.8	25.3	24.0	25.8	27.2
	47	Elbow Circumference			21.0	22.3	22.0	21.1	21.2	21.5
	48	Wrist Circumference			13.9	14.8	14.4	15.1	15.0	14.5
	49	Hand Circumference			21.2	20.5	21.4	22.7	20.3	21.0
	50	Back Neck Circumference	16.5	0.9	16.0	15.2	17.7	16.1	15.5	15.6
Length (21)	51	Waist Front Length	32.2	1.8	32.1	31.7	31.6	32.3	31.7	32.8
	52	Neck Point to Breast Point	25.8	1.9	25.0	25.3	25.4	26.3	25.8	25.8
	53	Neck Point to Breast Point to Waistline	39.6	1.9	38.9	39.0	38.8	40.2	39.2	39.3
	54	Shoulder Point to Breast Point	22.2	1.7	21.7	21.5	22.7	22.7	22.2	23.0
	55	Shoulder Point to Breast Point to Waistline	38.4	1.9	37.9	37.4	37.0	39.5	39.8	38.6
	56	Interscye, front	32.0	1.5	32.0	32.0	32.5	32.8	32.3	32.4
	57	Interscye Fold, front	31.3	2.1	31.4	31.8	31.9	31.5	32.0	31.7
	58	Bust Point-Bust Point	18.7	1.4	16.7	16.7	16.3	16.8	16.0	17.0
	59	Upperarm Length			30.8	30.8	30.4	29.9	33.4	30.2
	60	Arm Length			53.0	53.5	52.8	53.3	55.2	52.4
	61	Waist to Hip Length	22.0	1.9	22.3	22.0	22.3	22.4	23.4	23.3
	62	Cervical to Shoulder Length	19.2	1.4	18.8	20.0	19.0	18.7	19.0	18.9
	63	Shoulder Length	11.8	0.8	12.0	12.2	11.9	12.1	12.3	12.1
	64	Bishoulder Length	39.0	2.1	38.9	39.7	39.7	38.5	38.4	38.8
	65	Back Interscye, Length	36.2	1.9	35.7	35.9	35.8	36.0	36.3	36.0
	66	Back Interscye Fold, Length	33.4	2.2	32.7	33.7	34.4	34.0	34.0	33.8
	67	Scye depth	15.3	1.5	15.8	15.8	16.7	16.1	16.3	16.1
	68	Waist Back Length	36.6	1.7	37.5	37.0	36.3	38.0	37.0	36.3
	69	Scye depth			25.5	25.2	25.1	23.3	24.2	23.5
	70	Neck Point to Waistline, back	38.9	1.9	39.0	39.8	39.9	39.7	39.2	39.2
	71	Lateral Shoulder to Posterior Waist	40.6	1.9	40.0	41.5	40.2	41.3	39.5	39.4
Slope(2)	72	Shoulder Slope, Right(°)	21.7	3.2	21.5	21.5	22.0	20.0	21.0	21.5
	73	Shoulder Slope, Left(°)	21.9	3.5	21.5	21.3	22.3	21.0	21.5	21.8
the Rest(1)	74	Weight(kg)	51.7	6.1	51.3	51.0	50.0	50.0	50.5	51.6

※ The vacant space among the data of 2008 is applicable to the items that the measurement is not made.

and 3 graduate students, who are majored in the clothing composition, and one development/production director of Stage 89, which will be launched by Beaucre Shanghai.

4) Evaluation Method for Wearing

As the evaluation method for the fitness of the test clothing to develop the jacket pattern for the Chinese adult female, two methods, namely, the sensory test for the outer appearance to evaluate the type propriety and the evaluation of wear sensation to evaluate the move propriety and etc., were selected.

(1) Sensory Test for Outer Appearance

The evaluation items for the bodice test clothing consist of totally 54 items, namely, 20 items for front side, 16 ones for back side, 17 ones for flank, 1 item for whole and etc., and the evaluation items for the jacket test clothing consist of totally 80 items, namely, 22 items for front side, 24 ones for back side, 33 ones for flank, 1 item for whole and etc. As for the evaluation method, 5 points are applied to 「Very satisfactory」, 4 points to 「Satisfactory」, 3 points to 「Normal」, 2 points to 「Unsatisfactory」 and 1 point to 「Very unsatisfactory」 by using five points of Likert evaluation measurement.

(2) Evaluation Item for Move Functionality

The move functionality test of the 2nd pattern test, which went through the correction/supplement work as per the evaluation results for the 1st wearing test of the jacket test clothing, were made. The evaluation items consist of 5 ones, the comfortable degrees for the shoulder part, breast girth, waist girth, hip girth, arm hole, back part, arm circumference and etc. in 5 kinds of moves. As for the

evaluation method, 5 points are applied to 「Very satisfactory」, 4 points to 「Satisfactory」, 3 points to 「Normal」, 2 points to 「Unsatisfactory」 and 1 point to 「Very unsatisfactory」 by using five points of Likert evaluation measurement.

(3) Evaluation Analysis Method

As the statistical treatment of 134 items for the sensory test of the outer appearance and 5 items for evaluation of the move functionality to verify the propriety of the jacket test clothing, SPSSWIN 13.0 Program was used, and the average and standard deviation per item were acquired.

III. Research Results and Consideration

1. Wearing Test

1) Wearing Test for the Bodice Basic Pattern

(1) Wearing Test Result for 1st Bodice Basic Pattern

The wearing test results for the 1st bodice basic pattern is as per <Table5>, and the evaluation items for the test clothing are examined as follows.

① As for the item evaluating frontrear central length, it showed the low propriety as the front side and back side are respectively 2.40, 3.40. As the upper body was leant back, the phenomenon, which the front was lifted on the basis of the horizontal side of the front, appeared, and it was necessary to improve the phenomenon, which the front was lifted, by giving some room because it was originated from the fact that the body size of the front length itself was applied as it was in drawing

the pattern.

② As for the location, room and wrong wrinkle/pull phenomenon related to the neck part, average 3.80~4.60 of the high propriety was showed in the front, rear and flank.

③ The normal propriety was shown in the room of the breast width (3.80) and back width (3.20) among the breast-related parts. The location of the breast size line showed the low propriety as 2.40~2.60 in the front side, back side and flank side, which is originated from the phenomenon that the breast width line and the chest size line are raised together owing to the lack of the dimension of the nipple length.

④ As the location of the waist girth line (tail edge line) among the waist-related items is the same phenomenon as the low propriety of the central length and chest size line, it was required to adjust the front length and the back length because the phenomenon, which the front tail edge line is raised and the rear tail edge line is fallen, appeared owing to the body type of the Chinese females.

⑤ The valuation item related to the shoulder showed the low propriety as it is 2.40 from the point of the shoulder line, which is originated from the fact that as for the Chinese female, the half body type and the shoulder blade have been developed, and this is the same reason as it shows 2.00~2.60 of the low propriety in the wrong wrinkle, room of the rear armpit. In order to solve such problem of the fitness, the shoulder slope angle will be adjusted by moving the point of the shoulder line from the side point of the neck to the back plate based on the front plate, and the room and the wrong wrinkle occurred from the rear armpit will be moved to the arm dart.

⑥ Among the evaluation items related to the dart, the normal evaluation was shown in the

length (3.20) and the location (3.40) of the dart, and it showed the low propriety in the outer appearance as it is slanted to the front central line more than B.P location of the body and as the nipple length is short, and therefore, the necessity to readjust the B.P on the pattern was raised. The evaluation item of the flank line, as 3.8~4.0, showed the middle high of propriety.

⑦ The item evaluating the whole outer appearance respectively showed the low propriety of 2.30 and 3.20 in the rear and flank sides.

(2) Wearing Test Result for the 2nd Bodice Basic Pattern

The 2nd bodice original form was designed by correcting/supplementing the bodice basic pattern based on the wearing test results of the 1st bodice basic pattern. As the wearing test was evaluated high as per the 2nd wearing test results, the wearing test with the same test clothing was made in China, the results for which are as per <Table-6>.

① The item evaluating the front-back central line showed the high propriety as 4.40~5.00 in Korea and China.

② It showed 3.80~5.00 of the comparatively high propriety than the 1st wearing evaluation results for the outer appearance against the location, wrong wrinkle/pull phenomenon related to the neck, chest and waist parts. Especially, among the dimension related to the chest part showing the low propriety in the 1st wearing test results, the phenomenon, which the breast width line, chest size line and tail edge line were raised, was solved by giving 0.2cm of the room to the nipple length and the front length and 0.4cm of the room to the nipple interval, and it showed the high propriety by moving the dart location also.

<Table 5> Evaluation results of outer appearance
of the 1st bodice basic pattern for Chinese adult female

Classifi- cation	The Evaluation for Bodice Basic Pattern		Front part		Back part		Side part	
			M	SD	M	SD	M	SD
Center	1	Is the center front line or the center back line vertically placed?	4.60	0.45	4.20	0.55		
	2	Is the length of the center front line or the center back line appropriate?	2.40	0.15	3.40	0.25		
Neck	3	Is the location of the neckline appropriate?	4.30	0.55	4.00	0.00	4.60	0.75
	4	Is the neck part appropriate with sufficient room?	4.00	0.00	4.20	0.45	4.00	0.00
	5	Are there any wrinkles around the neck part?	4.30	0.55	3.80	0.35	4.30	0.53
Bust	6	Is the interscye front line or the interscye back line appropriate with sufficient room?	3.80	0.35	3.60	0.65		
	7	Is the bust line placed horizontally on its position?	2.60	0.25	2.40	0.15	2.60	0.25
	8	Is the bust line appropriate with sufficient room?	3.80	0.35	4.00	0.00	4.40	0.45
	9	Are there any wrinkles around the bust line?	3.40	0.25	3.40	0.25	3.70	0.20
Waist	10	Is the waist line placed horizontally on the right place?	2.40	0.15	2.20	0.35	2.40	0.32
	11	Is the waist line appropriate with sufficient room?	4.00	0.00	4.60	0.55	4.20	0.45
	12	Are there any wrinkles around the waist line?	4.40	0.45	4.60	0.55	4.40	0.45
Shoulder	13	Is the shoulder line placed on its position?					2.40	0.32
	14	Is the length of the shoulder appropriate?	4.00	0.00				
Armhole	15	Is the position and shape of the armhole line appropriate?	3.70	0.20	2.60	0.25	4.40	0.45
	16	Is the armhole line appropriate with sufficient room?	3.80	0.35	2.00	0.15	3.40	0.25
	17	Are there any wrinkles around the armhole line?	3.40	0.25	2.40	0.15	2.40	0.32
Dart	18	Is the position of the dart appropriate?	3.20	0.20				
	19	Is the volume of the dart appropriate?	4.00	0.00				
	20	Is the length of the dart appropriate?	3.40	0.40				
Side	21	Is the location of the side line appropriate?					3.80	0.35
	22	Is the side line placed vertically on the right place?					4.00	0.00
	23	Is the side seam line correctly placed?					3.80	0.35
Overall	24	Is the entire appearance on the side good?	3.80	0.35	2.30	0.15	3.20	0.65

□ is the item excluded from the evaluation. / ■ is the item below average 3.0.

③ As for the evaluation item related to the shoulder, it showed the higher propriety than that of the 1st evaluation for wearing test by correcting the shoulder slope angle as the location of the

shoulder line was moved the neck side point to the back plate based on the front plate. As the shoulder line was moved, the slope angle of the front shoulder was adjusted to 22.0° and the one of the rear shoulder to 18.5°. However, as per the wearing test results in China, it required the correction/supplement by showing 3.01 of propriety that is lower than the evaluation results for wearing test in Korea.

④ the wrong wrinkle, which occurred owing to much room on the back armhole part, was corrected. In this result, the chest size line and the waist size line made the level, and the loose shoulder dart was formed 1.4cm as it was treated with the shoulder dart through M.P in 0.64cm on the back armhole line.

⑤ The item evaluating the whole outer appearance showed the propriety above normal as 3.80~4.20.

(3) Wearing Test Results for Final Bodice Basic Pattern Original Form

The wearing test for the 3rd bodice basic pattern was made by correcting and supplementing the wearing test of the 2nd bodice basic pattern for the Chinese college students. As per the 3rd wearing test for the 3rd bodice original form, it showed the high propriety in all the items related to the center, neck, chest, waist, shoulder, armpit, dart and sideline. Especially, as for the location of the shoulder line, which showed the low propriety in the wearing test for the 2nd test clothing executed in China, the slope angle of the front shoulder was adjusted to 23.0° while the rear shoulder angle to 15.5°.

2) Wearing Test for the Tailored Jacket Pattern

(1) Wearing Test Result for 1st Tailored Jacket Pattern

The wearing test results for the 1st jacket pattern is as per <Table7>, and if we examined the evaluation items of the test clothing per part, it will be as follows.

① As for the item evaluating the frontrear central line, it showed the low propriety as the item for the vertical matter of the front central length was average 2.79 and the rear central length was average 2.80. The reason is originated from the lack of the room in the waist girth, hip girth and tail edge girth.

② As for the location related to the neck part, room, wrong wrinkle/pull phenomenon, the rear side and the flank side showed the propriety above the normal as average 3.60~4.50.

③ The room of the breast width (3.00) and the back width (2.66) among the part related to the chest showed the low propriety. As for the breast width, the wrong wrinkle was occurred due to lots of darts as the side breast dart was moved to the chest dart, and as for the back width, the pull phenomenon was occurred owing to the lack of the room as the sleeves were hung.

④ As for the item evaluating the room of the waist girth line, hip girth line and tail edge line and the wrong wrinkle/pull phenomenon, it showed the low propriety as 2.66~3.00. It was required to add the room as it was originated from the lack of the room in the waist, hip and tail edge parts being compared with the room of the chest size.

⑤ The location and length of the shoulder showed the high propriety of 4.00, 4.21, respectively.

⑥ As for the item evaluating the outer appearance of the armpit, the wrong wrinkle/pull phenomenon was occurred owing to the lack of the room in the depth and girth of the armhole and etc. which showed the low propriety of 2.66~3.20.

**<Table 6> Evaluation results of outer appearance
of the 2nd bodice basic pattern for Chinese adult female**

Classifi- cation	The Evaluation for Bodice Basic Pattern	Korea						China																
		Front part		Back part		Side part		Front part		Back part		Side part												
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD											
Center	1	Is the center front line or the center back line vertically placed?											5.00	0.00	4.20	0.20			5.00	0.00	4.40	0.90		
	2	Is he length of the center front line or the center back line appropriate?											3.89	1.22	3.80	0.75			4.33	0.57	3.89	1.22		
Neck	3	Is the location of the neckline appropriate?											4.33	0.57	4.20	0.35	4.33	0.57	4.00	0.00	4.40	0.55	4.33	0.57
	4	Is the neck part appropriate with sufficient room?											4.60	0.45	4.60	0.50	4.20	0.35	4.00	0.00	3.89	1.22	4.33	0.57
	5	Are there any wrinkles around the neck part?											4.33	0.57	4.00	0.00	4.33	0.57	4.00	0.00	4.40	0.55	4.33	0.57
	6	Is the interscye front line or the interscye back line appropriate with sufficient room?											4.40	0.55	4.00	0.00			4.10	0.57	4.10	0.57		
Bust	7	Is the bust line placed horizontally on its position?											4.21	0.53	3.80	0.55	3.80	0.65	4.33	0.57	3.80	0.65	4.21	0.53
	8	Is the bust line appropriate with sufficient room?											4.20	0.35	4.40	0.45	3.80	0.65	4.12	0.84	4.00	0.00	4.00	0.45
	9	Are there any wrinkles around the bust line?											3.80	0.65	4.00	0.00	4.21	0.53	4.33	0.57	4.00	0.00	4.33	0.57
	10	Is the waist line placed horizontally on the right place?											4.60	0.55	4.00	0.45	4.21	0.53	4.33	0.57	4.12	0.84	4.33	0.57
Waist	11	Is the waist line appropriate with sufficient room?											4.40	0.45	5.00	0.00	4.20	0.45	5.00	0.00	5.00	0.00	5.00	0.00
	12	Are there any wrinkles around the waist line?											4.00	0.25	4.21	0.53	4.00	0.25	4.50	0.58	4.30	0.53	4.33	0.57
Shoulder	13	Is the shoulder line placed on its position?															4.20	0.45					3.01	0.87
	14	Is the length of the shoulder appropriate?											4.00	0.00					3.80	0.65				
Armhole	15	Is the position and shape of the armhole line appropriate?											4.00	0.00	3.80	0.65	3.50	0.85	4.30	0.53	4.30	0.53	3.80	0.65
	16	Is the armhole line appropriate with sufficient room?											4.00	0.25	3.80	0.65	3.50	0.85	3.66	0.88	3.80	0.65	4.30	0.53
	17	Are there any wrinkles around the armhole line?											3.66	0.88	4.00	0.25	4.20	0.45	3.80	0.65	4.00	0.00	4.00	0.00
	18	Is the position of the dart appropriate?											3.80	0.65	3.80	0.35			4.50	0.58	4.10	0.88		
Dart	19	Is the volume of the dart appropriate?											4.20	0.45	4.20	0.45			4.20	0.45	4.10	0.88		
	20	Is the length of th dart appropriate?											4.20	0.45	4.20	0.45			4.50	0.58	4.20	0.45		
Side	21	Is the location of the side line appropriate?															4.20	0.20					4.20	0.45
	22	Is the side line placed vertically on the right place?															4.50	0.58					4.10	0.88
	23	Is the side seam line correctly placed?															4.50	0.58					4.30	0.53
	24	Is the entire appearance on the side good?											4.20	0.45	3.80	0.35	3.80	0.45	4.20	0.56	3.80	0.65	3.80	0.65

☐ is the item excluded from the evaluation. / ☐ is the item below average 3.5.

<Table 7> Evaluation results of outer appearance of the 1st Tailored Jacket Pattern

Classi- fication	The Evaluation of Exterior for Tailored Jacket Pattern		Front part		Back part		Side part	
			M	SD	M	SD	M	SD
Center	1	Is the center front line or the center back line vertically placed?	2.79	0.99	3.89	0.75		
	2	Is the length of the center front line or the center back line appropriate?	3.40	0.40	2.80	0.75		
Neck	3	Is the location of the neckline appropriate?			3.60	0.91	3.88	0.75
	4	Is the neck part appropriate with sufficient room?			3.88	0.75	4.00	0.00
	5	Are there any wrinkles around the neck part?			4.21	0.53	4.50	0.58
Bust	6	Is the interscye front line or the interscye back line appropriate with sufficient room?	3.00	0.00	2.66	0.94		
	7	Is the bust line placed horizontally on its position?	4.00	0.00	3.88	0.75	3.88	0.75
	8	Is the bust line appropriate with sufficient room?	2.66	0.94	2.80	0.75	3.00	0.00
	9	Are there any wrinkles around the bust line?	2.79	0.99	3.00	0.00	2.80	0.75
Waist	10	Is the waist line placed horizontally on the right place?	3.88	0.75	3.60	0.65	4.00	0.00
	11	Is the waist line appropriate with sufficient room?	2.82	0.88	2.85	1.00	3.00	0.00
	12	Are there any wrinkles around the waist line?	2.79	0.99	3.00	0.00	2.80	0.75
Hip	13	Is the hip line placed horizontally on the right place?	3.88	0.75	4.00	0.00	3.88	0.75
	14	Is the hip line appropriate with sufficient room?	3.88	0.75	2.85	1.00	3.40	0.40
	15	Are there any wrinkles around the hip line?	3.00	0.00	2.66	0.94	2.79	0.99
Hem	16	Is the hem line placed horizontally on the right place?	4.00	0.00	4.21	0.53	2.79	0.99
	17	Is the hem line appropriate with sufficient room?	2.66	0.94	2.79	0.99	2.97	1.13
	18	Are there any wrinkles around the hem line?	2.79	0.99	2.66	0.94	3.00	0.00
Shoulder	19	Is the shoulder line placed on its position?					4.00	0.00
	20	Is the length of the shoulder appropriate?	4.21	0.53				
Armhole	21	Is the position and shape of the armhole line appropriate?	2.66	0.94	2.79	0.99	2.66	0.94
	22	Is the armhole line appropriate with sufficient room?	3.20	1.04	2.97	1.13	2.79	0.99
	23	Are there any wrinkles around the armhole line?	2.66	0.94	2.79	0.99	2.97	1.13
Design Line	24	Is the location of the shoulder princess line appropriate?	4.00	0.00	3.88	0.75		
	25	Is the shape of the shoulder princess line appropriate?	4.00	0.00	3.88	0.75		
Side Line	26	Is the location of the side line appropriate?					3.20	1.04
	27	Is the side line placed vertically on the right place?					2.79	0.99
	28	Is the side seam line correctly placed?					3.40	0.45
Sleeve	29	Is the center line of the sleeve placed vertically on the right place?					3.40	0.45
	30	Is the height of the bicep appropriate?					2.66	0.94
	31	Is the length of the elbow appropriate?					4.00	0.00
	32	Is the length of the sleeve appropriate?					4.00	0.00
	33	Is the ease in the sleeve cap appropriate?					2.85	1.00
	34	Is the Upper Arm part appropriate with sufficient room?					2.85	1.00
	35	Is the elbow part appropriate with sufficient room?					3.60	0.65
	36	Is the hem part appropriate with sufficient room?					3.88	0.75
	37	Are the front composition of the sleeves good?					4.00	0.00
	38	Are the locations of the front/rear division lines of two sleeves proper?					4.00	0.00
Overall	39	Is the entire appearance on the side good?	2.97	1.13	3.40	0.65	2.97	1.13

□ is the item excluded from the evaluation. / ■ is the item below average 3.0.

<Table 8> 1st Evaluation Results for Move functionality of Jacket

No.	The Motion Evaluation for the Tailored Jacket	M	SD
1	Is it comfortable when the arm is lifted in 90° front?	1.68	0.51
2	Is it comfortable when the arm is lifted in 90° side?	1.68	0.4.9
3	Is it comfortable when two arms are crossed in the front?	2.00	0.65
4	Are the sleeves comfortable when two arms are lifted bending?	1.60	0.55
5	Is it comfortable when the waist is bent in 90° front?	1.40	0.20

⑦ As for the item evaluating the outer appearance of the flank line, it showed the comparatively low propriety as the location of the flank line was 3.20, the vertical matter of the flank line was 2.79 and the item of whether to divide the front-rear width with the balance was 3.40, it was requested to correct the location of the flank line.

⑧ The item related to the sleeves showed the propriety of average 2.66~4.00. As the items showing the low propriety were the parts of the height of the sleeve top height, ease, upper shoulder girth and etc. where the pull phenomenon was occurred owing to the lack of the room.

⑨ As for the item evaluating the whole outer appearance, the low propriety was shown in the front, side and rear parts as 2.97 and 3.40, respectively, which required the whole correction /supplement.

(2) Wearing Test Result for 2nd Tailored Jacket Pattern

In order to develop the jacket pattern for the Chinese adult female, the 2nd test jacket pattern was drawn through the correction/supplement as per the 1st jacket wearing test results, and then, the test clothing was produced. As per the sensory test for the outer appearance, it showed the propriety of average 2.66~4.00, the results for which are as per <Table-9>.

① As for the item evaluating the vertical matter

of the front central line and the rear central line in the item evaluating the front and back central line, it showed above the normal propriety as 3.88, 4.01, respectively, and the item evaluating the front and back central line showed the high propriety of above 4.00. The front and back central line was placed straight by adding the room to the waist, hip girth and tail edge parts.

② By reducing the dart quantity of the side chest and by lowering the armhole depth among the parts related to the chest, it showed the propriety above the normal as average 3.60~4.21.

③ As per the 1st wearing test results for the waist girth line, hip girth line and tail edge line, as for the room showing the low propriety and the item evaluating the wrong wrinkle/pull phenomenon, it showed the comparatively high propriety by adding 2cm of room to each girth but the pull phenomenon still occurred.

④ As for the item evaluating the outer appearance of the armpit, it showed the comparatively high the priority being compared with the 1st wearing test, but the wrong wrinkle/pull phenomenon still occurred.

⑤ As for the item evaluating the outer appearance of the flank line, it still showed the low propriety as the location of the flank line was 3.60, the vertical matter of the flank line was 3.40 and the item of whether to divide the front-rear width with the balance was 3.60, and therefore, it was requested to correct the location of the flank line.

<Table 9> Evaluation results of outer appearance of the 2nd Tailored Jacket Pattern

Classification	The Evaluation of Exterior for Tailored Jacket Pattern		Front part		Back part		Side part	
			M	SD	M	SD	M	SD
Center	1	Is the center front line or the center back line vertically placed?	3.88	0.75	4.01	1.02		
	2	Is the length of the center front line or the center back line appropriate?	4.00	0.00	4.57	0.89		
Neck	3	Is the location of the neckline appropriate?			4.01	1.02	4.00	0.00
	4	Is the neck part appropriate with sufficient room?			4.00	0.00	4.01	1.02
	5	Are there any wrinkles around the neck part?			4.43	0.87	4.57	0.89
Bust	6	Is the interscye front line or the interscye back line appropriate with sufficient room?	3.89	1.22	3.60	0.91		
	7	Is the bust line placed horizontally on its position?	4.00	0.00	4.00	0.00	4.30	0.87
	8	Is the bust line appropriate with sufficient room?	3.60	0.65	3.89	1.22	4.00	0.00
	9	Are there any wrinkles around the bust line?	3.88	0.75	4.00	0.00	3.60	0.91
Waist	10	Is the waist line placed horizontally on the right place?	4.00	0.00	3.88	0.75	4.01	1.02
	11	Is the waist line appropriate with sufficient room?	3.60	0.65	3.40	0.65	3.88	0.75
	12	Are there any wrinkles around the waist line?	3.88	0.75	3.60	0.91	3.88	0.75
Hip	13	Is the hip line placed horizontally on the right place?	4.00	0.00	4.30	0.87	4.21	0.53
	14	Is the hip line appropriate with sufficient room?	3.40	0.45	3.60	0.91	3.40	0.45
	15	Are there any wrinkles around the hip line?	3.60	0.91	3.88	0.75	3.89	1.22
Hem	16	Is the hem line placed horizontally on the right place?	3.88	0.75	4.00	0.00	4.00	0.00
	17	Is the hem line appropriate with sufficient room?	3.60	0.91	3.88	0.75	3.60	0.91
	18	Are there any wrinkles around the hem line?	3.60	0.91	3.60	0.91	3.88	0.75
Shoulder	19	Is the shoulder line placed on its position?					4.30	0.87
	20	Is the length of the shoulder appropriate?	4.30	0.87				
Armhole	21	Is the position and shape of the armhole line appropriate?	3.40	0.45	3.60	0.91	3.40	0.45
	22	Is the armhole line appropriate with sufficient room?	3.60	0.91	3.40	0.65	3.88	0.75
	23	Are there any wrinkles around the armhole line?	3.40	0.45	3.89	0.87	3.60	0.91
Design Line	24	Is the location of the shoulder princess line appropriate?	4.00	0.00	4.30	0.87		
	25	Is the shape of the shoulder princess line appropriate?	4.00	0.00	4.30	0.87		
Side Line	26	Is the location of the side line appropriate?					3.60	0.91
	27	Is the side line placed vertically on the right place?					3.40	0.45
	28	Is the side seam line correctly placed?					3.60	0.91
Sleeve	29	Is the center line of the sleeve placed vertically on the right place?					3.60	0.91
	30	Is the height of the bicep appropriate?					3.80	0.20
	31	Is the length of the elbow appropriate?					4.30	0.87
	32	Is the length of the sleeve appropriate?					4.30	0.87
	33	Is the ease in the sleeve cap appropriate?					3.60	0.91
	34	Is the Upper Arm part appropriate with sufficient room?					3.88	0.75
	35	Is the elbow part appropriate with sufficient room?					3.88	0.75
	36	Is the hem part appropriate with sufficient room?					4.43	0.87
	37	Are the front composition of the sleeves good?					4.43	0.87
	38	Are the locations of the front/rear division lines of two sleeves proper?					4.57	0.89
Overall	39	Is the entire appearance on the side good?	3.89	0.87	3.88	0.75	3.40	0.45

□ is the item excluded from the evaluation. / ■ is the item below average 3.5.

<Table 10> 2nd Evaluation Results for Move functionality of Jacket

No.	The Motion Evaluation for the Tailored Jacket	M	SD
1	Is it comfortable when the arm is lifted in 90° front?	2.40	0.75
2	Is it comfortable when the arm is lifted in 90° side?	2.60	0.65
3	Is it comfortable when two arms are crossed in the front?	2.20	0.31
4	Are the sleeves comfortable when two arms are lifted bending?	2.00	0.65
5	Is it comfortable when the waist is bent in 90° front?	2.40	0.75

⑥ The item related to the sleeves showed the propriety above the normal as average 3.60~4.57. The pull phenomenon was occurred owing to the lack of the room in the height of the sleeve top height, ease, upper shoulder girth and etc., being the same as the 1st wearing test results.

⑦ As for the item evaluating the whole outer appearance, the front and rear sides showed the propriety of the normal degree as 3.88 and, 3.89, respectively, but as for the flank side, the low propriety was shown in the side and the outer appearance as the 3.40.

As per the evaluation results for the move functionality of the 2nd jacket pattern, it still appeared low as the average was 2.00~2.60 such as 2.40 when the arm was lifted in 90° front, 2.60 when the arm was lifted in 90° side, 2.20 when the arms were crossed in the front, 2.00 when the arm was lifted bending behind the neck, 2.40 when the waist was bent in front and etc.<Table10>.

(3) Wearing Test Result for 3rd Tailored Jacket Pattern

For the 3rd jacket pattern wearing test, it was evaluated by letting the college female students residing in Shanghai, China, wear the test clothing, which was produced by correcting/supplementing the 2nd wearing test results, and it results are as per <Table11>.

① The high propriety above average 4.00 appeared in all the items related to the central line, neck part, shoulder and design line, and the high propriety above average 4.00 appeared also in the locations of the chest girth line, hip girth line, hip girth line and tail edge line. Wholly, the much higher propriety appeared than the 2nd wearing test.

② As the wrong wrinkle/pull phenomenon occurred in the chest girth, waist girth, hip girth and tail edge girth, it was required to reset the side line together with addition of the room.

③ As for the item evaluating the outer appearance of the armpit, it showed the comparatively high propriety by setting the armpit in lower point than the 1st wearing test.

④ The sleeves-related item showed the propriety above the normal as average 3.80~4.43. As the item showing average 3.80 of propriety is the room of the upper arm girth, it showed the low propriety on the outer appearance as the rear part has the smaller room that of the front part because the central line of the sleeves were biased to the rear part. In this case, the front/rear problem of the chest girth line and that of sleeve opening girth were solved by moving the side line of the jacket to the rear part.

⑤ The item evaluating the whole outer appearance showed the high propriety as the front average is 4.00, the rear average is 4.12 and the side is 4.02.

<Table 11> Evaluation results of outer appearance of the 3rd Tailored Jacket Pattern

Classification	The Evaluation of Exterior for Tailored Jacket Pattern		Front part		Back part		Side part	
			M	SD	M	SD	M	SD
Center	1	Is the center front line or the center back line vertically placed?	4.12	0.84	4.20	0.56		
	2	Is the length of the center front line or the center back line appropriate?	4.20	0.56	4.43	0.87		
Neck	3	Is the location of the neckline appropriate?			4.12	0.84	4.43	0.87
	4	Is the neck part appropriate with sufficient room?			4.20	0.56	4.12	0.84
	5	Are there any wrinkles around the neck part?			4.43	0.87	4.20	0.56
Bust	6	Is the interscye front line or the interscye back line appropriate with sufficient room?	4.02	1.08	3.89	0.58		
	7	Is the bust line placed horizontally on its position?	4.12	0.84	4.20	0.56	4.43	0.87
	8	Is the bust line appropriate with sufficient room?	3.89	0.58	4.02	1.08	4.12	0.84
	9	Are there any wrinkles around the bust line?	4.02	1.08	4.20	0.56	3.89	0.58
Waist	10	Is the waist line placed horizontally on the right place?	4.12	0.84	4.12	0.84	4.20	0.56
	11	Is the waist line appropriate with sufficient room?	3.89	0.58	4.02	1.08	4.12	0.84
	12	Are there any wrinkles around the waist line?	4.02	1.08	4.02	1.08	4.12	0.84
Hip	13	Is the hip line placed horizontally on the right place?	4.12	0.84	4.20	0.56	4.43	0.87
	14	Is the hip line appropriate with sufficient room?	3.89	0.58	4.02	1.08	4.02	1.08
	15	Are there any wrinkles around the hip line?	4.02	1.08	4.12	0.84	4.20	0.56
Hem	16	Is the hem line placed horizontally on the right place?	4.02	1.08	4.12	0.84	4.43	0.87
	17	Is the hem line appropriate with sufficient room?	3.89	0.58	4.02	1.08	3.89	0.58
	18	Are there any wrinkles around the hem line?	4.02	1.08	3.89	0.58	4.02	1.08
Shoulder	19	Is the shoulder line placed on its position?					4.43	0.87
	20	Is the length of the shoulder appropriate?	4.43	0.87				
Armhole	21	Is the position and shape of the armhole line appropriate?	3.89	0.58	3.89	0.58	4.02	1.08
	22	Is the armhole line appropriate with sufficient room?	4.02	1.08	4.00	0.00	4.00	0.00
	23	Are there any wrinkles around the armhole line?	3.89	0.58	4.01	1.02	3.89	0.58
Design Line	24	Is the location of the shoulder princess line appropriate?	4.32	1.00	4.43	0.87		
	25	Is the shape of the shoulder princess line appropriate?	4.12	0.84	4.43	0.87		
Side Line	26	Is the location of the side line appropriate?					3.89	0.58
	27	Is the side line placed vertically on the right place?					3.89	0.58
	28	Is the side seam line correctly placed?					4.02	1.08
Sleeve	29	Is the center line of the sleeve placed vertically on the right place?					4.02	1.08
	30	Is the height of the bicep appropriate?					4.12	0.84
	31	Is the length of the elbow appropriate?					4.43	0.87
	32	Is the length of the sleeve appropriate?					4.32	1.00
	33	Is the ease in the sleeve cap appropriate?					3.89	0.58
	34	Is the Upper Arm part appropriate with sufficient room?					4.00	0.00
	35	Is the elbow part appropriate with sufficient room?					4.12	0.84
	36	Is the hem part appropriate with sufficient room?					4.43	0.87
	37	Are the front composition of the sleeves good?					4.43	0.87
	38	Are the locations of the front/rear division lines of two sleeves proper?					4.43	0.87
Overall	39	Is the entire appearance on the side good?	4.00	0.00	4.12	0.84	4.02	1.08

☐ is the item excluded from the evaluation.

<Table 12> 3rd Evaluation Results for Move functionality of Jacket

No.	The Motion Evaluation for the Tailored Jacket	M	SD
1	Is it comfortable when the arm is lifted in 90° front?	3.00	0.00
2	Is it comfortable when the arm is lifted in 90° side?	2.79	0.99
3	Is it comfortable when two arms are crossed in the front?	3.00	0.00
4	Are the sleeves comfortable when two arms are lifted bending?	2.79	0.99
5	Is it comfortable when the waist is bent in 90° front?	3.20	1.04

<Table 13> Final Application Dimension for Tailored Jacket Pattern

(unit: cm)

Measuring Item			Measuring value of Type A of Chinese overall 20s in 2008	Final Application Dimension	
			●	◎	●±◎
Bodice (9)	Circumference	Upper bust Circumference	82.3	86.3	●+4.0
		Bust Circumference	83.7	87.7	●+4.0
	Length	Waist back Length	36.6	37.0	●+0.4
		Neck shoulder point to breast point	25.8	25.2	●-0.6
		Neckpoint to breast point to waistline	39.6	40.2	●+0.6
		Bust point-bust point	18.7	17.4	●-1.3
		Intersyce, front	32.0	32.4	●+0.4
		Intersyce, back	36.2	36.5	●+0.3
		Across shoulder/2	19.2	19.0	●-0.2
Tailored Jacket (15)	Circumference	Upper bust Circumference	82.3	86.3	●+4.0
		Bust Circumference	83.7	87.7	●+4.0
		Waist Circumference	67.4	69.6	●+2.2
		Hip Circumference	90.3	92.8	●+2.5
	Length	Jacket Length	-	63.5	-
		Waist back Length	36.6	37.0	●+0.4
		Neck shoulder point to breast point	25.8	25.2	●-0.6
		Neckpoint to breast point to waistline	39.6	40.2	●+0.6
		Bust point-bust point	18.7	17.4	●-1.3
		Intersyce, front	32.0	32.4	●+0.4
		Intersyce, back	36.2	36.5	●+0.3
		Across shoulder/2	19.2	19.0	●-0.2
		Waist to hip	22.0	20.0	●-2.0
Sleeve (2)	Circumference	Wrist Circumference	14.7	25.0	●+10.3
	Length	Arm Length	54.1	58.0	●+3.9

As per the evaluation results for the move functionality of the 3rd jacket pattern, it showed the higher evaluation than that of the 2nd wearing test as average is 2.79~3.00 such as 3.00 when the arm was lifted in 90° front, 2.79 when the arm was lifted in 90° site, 3.00 when the arms were crossed in the front, 2.79 when the arm lifted bending behind the neck, 3.20 when the waist was bent in 90° front and etc. <Table12>

2. Design of Jacket Pattern for Chinese Adult Female

1) Setting of Final Application Dimension

The application dimension per items used for development of the jacket pattern was corrected /supplemented as per the wearing test results, which is as per <Table13>.

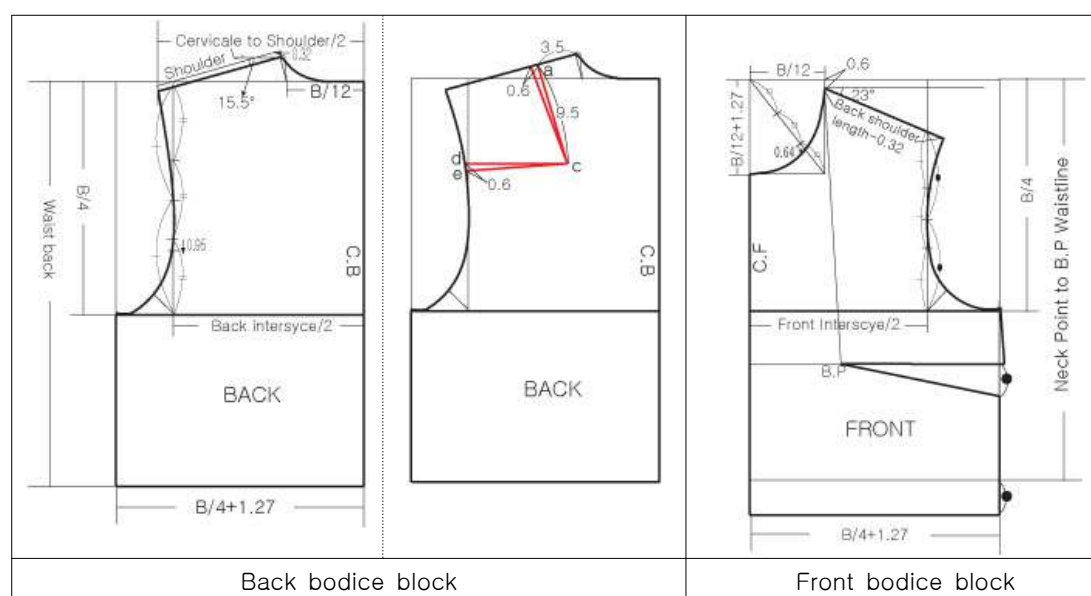
The 1st application dimension to design the 1st research jacket pattern was readjusted and set

by giving the necessary room when the clothing was worn to the body measuring device of Type A among the body types classified as per GB. For the final application dimension, the height will be 160~165cm, the breast girth be 87.7cm, the waist girth be 69.6cm and the hip girth be 92.8cm. The shoulder part is the one supporting the physical weight and the important part to the degree that it will decide the wear sensation whether there is the propriety. So, as for the shoulder slope applied in this research, the front plate was decided 23.0° and the rear plate 15.5°.

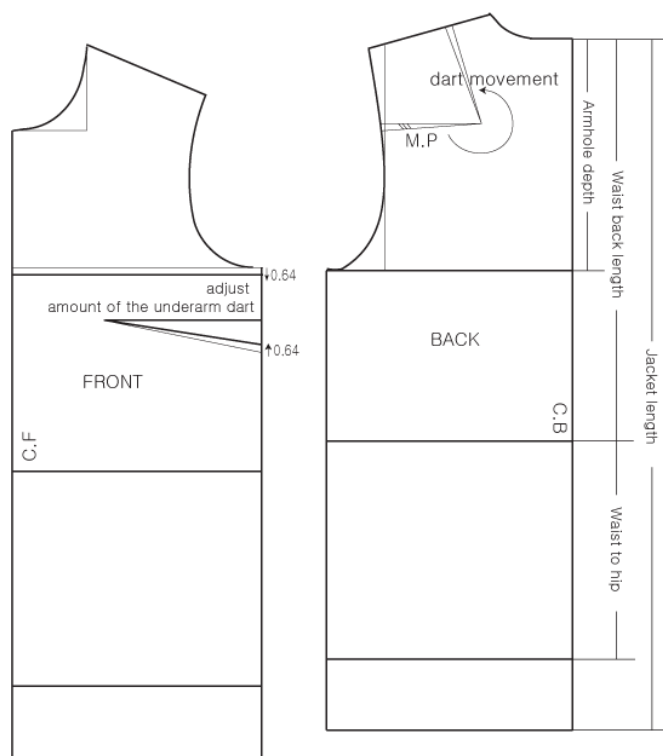
2) The Drawing Method of the Tailored Jacket Pattern

(1) The Drawing Method of the final bodice basic pattern

The drawing method of the final bodice basic pattern has been presented <Pic.1> by correcting /supplementing the problem appeared in the 1st, 2nd and 3rd wearing test results.



<Pic. 1> The method of the final bodice basic pattern



<Pic. 2> Basic line of jacket bodice

(2) The Bodice Pattern Drawing Method of Jacket

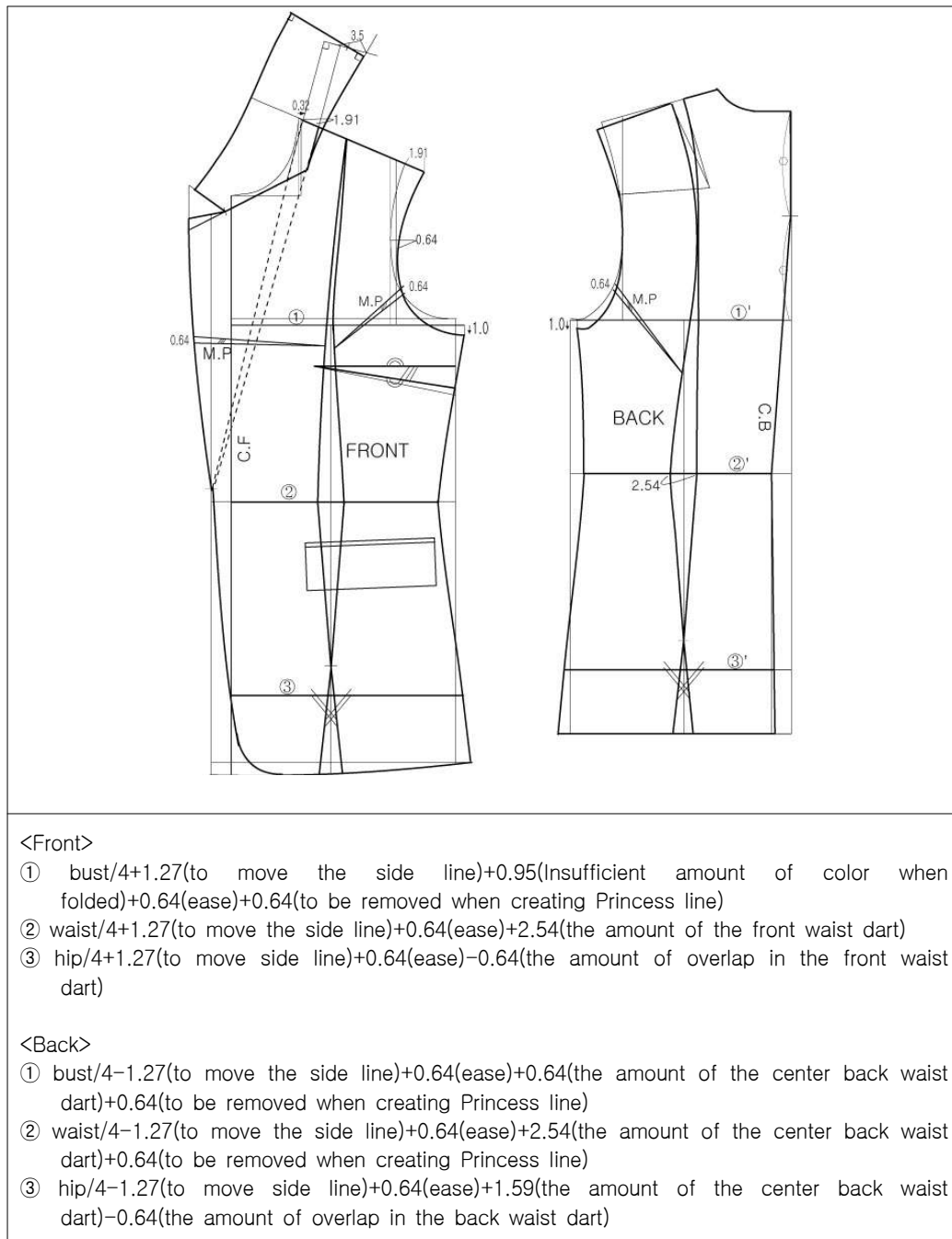
The jacket bodice pattern was drawn on <Pic.2> and <Pic.3> by using the final bodice basic pattern.

(3) The final tailored sleeve pattern drawing method

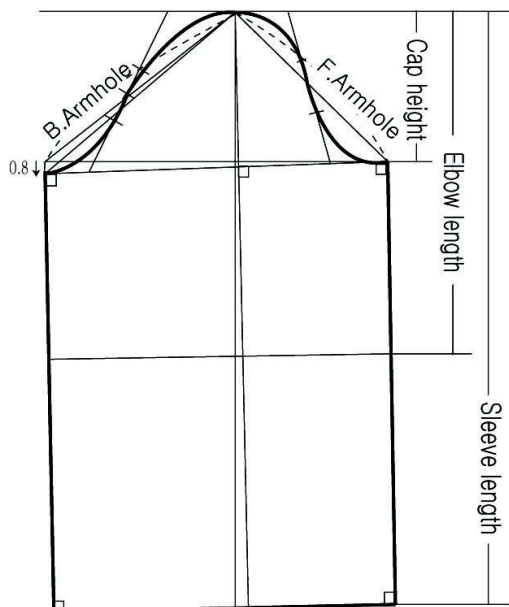
The final tailored sleeve pattern drawing method was designed as per the drawing method of 'on&on', female brand of Beaucre Merchandising Co., Ltd. and the existing drawing method was used as there is no item to be corrected and supplemented as per the wearing test.

IV. Conclusion and Proposition

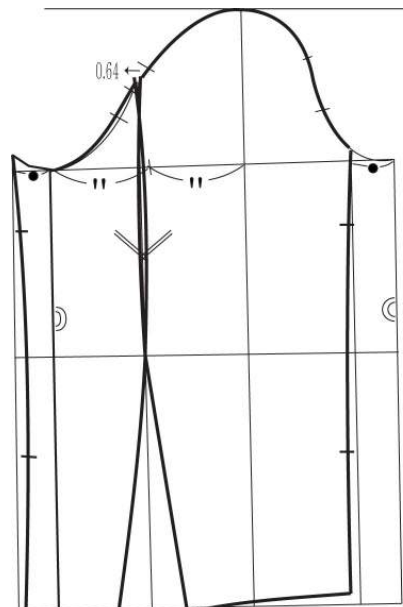
This research set the application measurement by selecting the jacket pattern drawing method of 'on&on', young casual brand of Beaucre Merchandising Co., Ltd. which was succeeded in the localization among the companies advancing in China in order to develop the jacket pattern for the deluxe product-oriented Chinese female, and by combining the average value of the new systematical measuring value of Type A that was classified as per GB/T in 2008. As for the developed jacket pattern, its propriety was verified on the basis of the wearing test and the parts showing the low propriety were corrected/supplemented, and such parts were the chest girth, waist girth, hip girth, shoulder,



<Pic.3> Completion of final jacket bodice



<Pic. 4> The final basic sleeve
pattern drawing method



<Pic. 5> The final tailored sleeve
pattern drawing method

※ Cap height: $\text{armhole depth} - \text{armhole depth} / 5$

back length and back part. The summary and conclusion of this research are as follows.

1. The wearing tests of the original bodice form to develop the jacket for the Chinese adult female were made in Korea and China. Namely, it was corrected/supplemented in Korea through 2 times of the bodice basic pattern and then, the final wearing test was made in Shanghai, China, and through this, the bodice basic pattern was completed. As for the bodice basic pattern, the wrong wrinkle was moved to the shoulder dart in order to increase the fitness of the back part and the armhole, and finally, 1.4cm of back shoulder dart was created.

2. The jacket pattern for the Chinese adult female was designed by applying the final bodice basic pattern and the drawing method of

the sleeve pattern, and the final jacket pattern for the Chinese adult female was developed through 2 times of wearing tests in Shanghai, China after 2 times of wearing tests in Korea, and the most corrections/supplements were made in the chest part and back part. In case the whole underarm dart was moved through M.P, the wrong wrinkle occurred on the breast width. The side line length of the back plate was corrected by lowering the armpit point through reduction of 0.6cm among the underarm dart of the front plate, and the quantity moved to the breast dart was reduced. Also, in order to remove the phenomenon, which the bending line of the collar had a gap, it was moved from the lapel of the bodice basic pattern to the breast dart through 0.6cm M.P.

3. The bodice basic pattern was corrected/



<Pic. 6> Final Wearing Test Results

supplemented 3 times and the jacket was corrected/supplemented in Korea and China, and the final jacket has been presented on <Pic.6>.

As per the proposal relative to this research results, the dimension applied to the jacket pattern drawing method has the high propriety for the most average body type by calculating and using Type A, standard body type, among the ones classified as per drop value of GB, but as any matter may occur to the propriety for the pattern of Types Y, B and C, it will be necessary to make the sufficient and precise measurement and observation in detail.

Reference

- 1) Aju Economic(2010. 11. 07), "2020, more than half of Chinese will become the middle class", Retrieved 2010. 11. 10, from <http://www.ajnews.co.kr>.
- 2) Korea Federation of Textile Industries(2007. 08. 30), "6 matters of Chinese female clothing", Retrieved 2009. 03. 12, from <http://www.kofoti.or.kr>.
- 3) "10-big consuming trend appearing in the purchase type of Chinese consumers"(2008. 02. 19), Retrieved 2009. 03. 12, from <http://blog.naver.com>.
- 4) Park Jinyoung, Sohn Heesoon(2006), "A Research on the Jean Pants Wearing Conditions and Purchase Behavior of Female University Students in Shanghai of China", *The Research Journal of the Costume Culture*, 14(3), pp.469-482.
- 5) Kim Jooho, Son Jooyoung(2008), "A Study on Lifestyle and Cosmetics Purchasing Behavior - Focused on the Comparison of Korean and Chinese Female College Student-", *Journal of the Korean Society of Clothing and Textiles*, 32(7), pp.1104-1115.
- 6) Wee Hyejung, Sohn Heesoon(2003), "A Study on the Basic Bodice Block for Adult Women in China - Focusing on Resident in Beijing and Sanghai-", *Journal of Fashion Business*, 7(4), pp.120-141.
- 7) Cha Sujoung, Sohn Heesoon(2010), "A Study for the Development of a Brassiere Pattern for Chinese Adult Women in their Early 20s in Shanghai", *The Research Journal of the Costume Culture*, 34(1), pp.50-66.
- 8) Wee Hyejung, Sohn Heesoon(2008), "Development of the Apparel Sizing System for Chinese Adult Women II - focused on the Age group in their Twenties-", *Journal*

of Fashion Business, 12(4), pp.56–72.

- 9) Kang Yeonkyung, Sohn Heesoon(2008), "A Research on the Tailored Suit Wearing Conditions and Fit Preferences of Chinese Adult Women –Focusing on the age of 25–34 Resident in Shanghai–", *Journal of Fashion Business*, 12(2), pp.117–133.
- 10) Choi Yuok(2009), "A Study for the Development of Knit Bodice & Sleeve Block for the Chinese Adult Women : focused on the women in their early 20s in Shanghai", Sookmyung Women's University master's dissertation, pp.104–110.

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