#### AN ABSTRACT OF THE THESIS OF

Norah E. Buckalew for the M. S. Clothing & Textiles (Name) (Degree) (Major) Date Thesis presented July 30, 1941 Title Computation of A Textile Achievement Test Abstraet Approved:

(Major Professor)

This study was made to ascertain what pertinent knowledge of textiles first and second year college students had obtained from previous clothing courses, from general reading, and from experiences; to learn how much general knowledge of textiles they had gained by taking the textile course in college; and to measure the validity and objectivity of the test.

The objective textile achievement test of this study was compiled by Miss Edith Fhyne, Associate Professor of Testiles at Oregon State College.

The test was given to two hundred Oregon State College students as a preliminary entrance examination to the elementary textile course. The same test was given as a final examination to the same students upon completion of the textile course.

These two hundred students represented sixtythree high schools, many of which were in other states and a few were in other countries. There were one hundred students from small rural high schools and eight students from large city high schools. Sixteen students did not state whether they had received previous training in textiles.

To distinguish between the two times the test was given, the first time is called the proliminary test and the second the final test.

The test is objective and consists of four parts, with a possible score of 181 points.

The writer scored the test papers as to correct, incorrect and omitted answers. Tables were formed giving scores and computed results on the preliminary and final tests for 200 students taking the test; for the 61 students with textile training in high school, and for 123 students without textile training in high school; for low and high scores on the parts of the preliminary and final tests; and the average scores for each part of the preliminary and final tests.

Students from small high schools received as high scores in both preliminary and final tests as did the students from large city schools.

The scores of the final test were much higher for those students in the last two quarters than were the scores for the students of the first two quarters. This result might be due to either of two reasons: these students might have been better scholastically than the students of the previous classes; or they might have been told by former students that the test would be given as a final test for the textile course. The students scored the best scores on the true-false and definition parts, and lower scores on parts of the test in which they had to depend entirely upon their memories. The true-false and definition parts of the test gave them a suggestion as to what the answer might be.

It would seem that the test is not sufficiently adequate as a satisfactory measure. It should contain more scoring points.

#### ANALYSIS OF AN OREGON STATE COLLEGE

1

TEXTILE ACHIEVEMENT TEST

by

NORAH ELIZABETH BUCKALEW

A THESIS

submitted to the OREGON STATE COLLEGE

in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

July 1941

APPROVED:

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Professor of Clothing and Textiles

In Charge of Major

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Head of Department of Clothing and Textiles

# Redacted for privacy

Chairman of School Graduate Committee

# Redacted for privacy

Chairman of State College Graduate Council

#### ACKNOWLEDGMENT

The writer wishes to express her sincere appreciation to Miss Edith Rhyne, Associate Professor of Clothing, Textiles and Related Arts, for her help in making this research possible; and to Professor Alma C. Fritchoff, Head of the Department of Clothing, Textiles and Related Arts, for her help and encouragement during the writing of this thesis.

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# ANALYSIS OF AN OREGON STATE COLLEGE TEXTILE ACHIEVEMENT TEST

#### INTRODUCTION

Tests or examinations in one form or another have been used as measurements in education for many years. A test is a means of measuring gained knowledge.

If a test is to act as a perfect measurement for knowledge gained in a certain teaching period, it should have perfect validity, or cover the scope of the subject matter that was taught. It should also have perfect objectivity, which makes it possible for more than one person to correct the test and give the same score.

There should be certain benefits derived from the use of tests. The results of the tests should show the accomplishment of the individual student and those of the group. Standard test norms and means give comprehensive standards of attainment. They should act as an incentive for achievement to the student and furnish dependable measures for the efficiency of the instruction.

It was with these functional values and criteria of an effective educational measurement in mind that this study was made and the results compiled in this thesis.

#### PROCEDURE

The objectives of this study were to ascertain what pertinent knowledge of textiles first- and second-year college students had obtained from previous clothing courses, from general reading, and from experiences; to learn how much general knowledge of textiles they had gained by taking the textile course in college; and to measure the validity and objectivity of this test.

The textile achievement test\* for this study was compiled by Miss Edith Rhyne, Associate Professor of Textiles at Oregon State College.

As a preliminary entrance examination to the elementary textile course, the test was given to two hundred Oregon State students in four groups. The same students were given the test as a final examination upon completion of the textile course.

To distinguish between the two times the test was given, the first will be called the preliminary test and the second the final test.

The students were instructed to write on their preliminary test papers the names of the high schools which they had attended, and to indicate whether they

\*See Appendix

had received high school instruction in textiles and clothing.

Sixty-three high schools were represented, many of which were in other states, and a few in other countries. There were one hundred students from small rural high schools and eighty students from large city high schools. Twenty students did not name or give the location of their high schools. Sixteen students did not state whether they had received previous training in textiles.

The test consisted of 4 parts, completely objective.

True-False. . . . valued at 75 points Recall . . . . valued at 29 points Matching . . . valued at 20 points (called definitions)

Identification of fabrics, weaves, prints, dyeing, and finishes. . . valued at 57 points

The writer scored the test papers as to correct, incorrect, and omitted answers. These scores were used in forming Table I, Table II, Table III, Table IV, Table V, Table VI, Table VII, and Table VIII. Misspelled words were also noted but were not counted in the scoring.

#### TABLE I

#### Scores on Preliminary and Final Tests

#### for 200 Students

	Pre- test Part I	Final test Part I	Pre- test Part II	Final test Part II	Pre- test Part III	Final test Part III	Pre- test Part IV	Final test Part IV	Pre- test Total Score	Final test Total Score
1	28	65	11	28	4	18	12	41	55	152
2	34	64	13	26	5	15	12	26	64	131
3	46	58	10	27	5	17	13	41	74	143
4	46	63	8	24	3	17	18	31	75	135
5	18	66	1	28	0	17	17	37	36	148
6	44	62	9	25	4	16	16	34	73	137
7	31	57	7	28	1	17	20	39	65	141
0	20	59	9	20	8	18	17	41	60	144
10	17	67	0	26	0	10	10	38	SI	140
11	33	61	6	20	g	10	15	41	60	150
12	47	70	14	28	q	10	13	41	83	161
13	18	68	9	28	5	19	19	47	51	162
14	19	69	7	27	. 8	19	14	41	48	156
15	24	53	6	16	2	13	7	34	39	116
16	9	57	5	15	4	16	7	19	25	107
17	31	62	5	24	5	19	14	35	55	140
18	32	73	9	24	6	19	12	34	59	150
19	40	70	14	27	11	19	9	41	74	157
20	49	73	8	28	12	19	14	34	83	154
21	28	70	7	28	4	20	15	35	54	153
22	29	71	8	25	9	20	11	47	57	163
20	40	60	4	20	TT	10	15	40	75	150
25	59	71	13	28	4	20	22	48	98	167
26	17	71	5	27	2	20	16	35	40	153
27	33	66	6	28	7	18	15	46	61	158
28	17	58	6	20	8	19	7	27	38	124
29	25	70	6	27	13	20	8	36	52	153
30	13	59	3	22	4	14	10	25	30	120
31	10	61	0	22	0	19	10	32	20	134
32	27	67	8	29	8	19	17	42	60	157
33	35	67	8	24	7	14	8	27	58	132
34	25	64	5	24	6	16	9	20	45	124
35	19	65	4	25	5	16	14	36	42	142
36	22	61	3	29	3	17	9	28	37	135
37	35	56	11	23	7	16	18	31	71	126

Scores on Preliminary and Final Tests

#### for 200 Students

	Pre- test Part I	Final test Part I	Pre- test Part II	Final test Part II	Pre- test Part III	Final test Part III	Pre- test Part IV	Final test Part IV	Pre- test Total Score	Final test Total Score
3390123456789012345678901234567890 123555555555555555555555555555555555555	47 21 92 88 82 42 33 43 57 62 13 40 61 34 06 47 55 42 9	$\begin{array}{c} 61\\ 69\\ 52\\ 72\\ 71\\ 65\\ 73\\ 67\\ 54\\ 74\\ 66\\ 66\\ 66\\ 71\\ 74\\ 60\\ 71\\ 65\\ 74\\ 63\\ 74\\ 63\\ 71\\ 65\\ 74\\ 63\\ 74\\ 63\\ 71\\ 65\\ 74\\ 63\\ 74\\ 63\\ 71\\ 65\\ 74\\ 63\\ 74\\ 63\\ 71\\ 65\\ 74\\ 63\\ 74\\ 63\\ 71\\ 65\\ 74\\ 63\\ 74\\ 63\\ 71\\ 65\\ 74\\ 63\\ 74\\ 63\\ 71\\ 75\\ 74\\ 63\\ 71\\ 75\\ 74\\ 63\\ 71\\ 75\\ 74\\ 63\\ 71\\ 75\\ 74\\ 63\\ 71\\ 75\\ 74\\ 63\\ 71\\ 75\\ 74\\ 63\\ 71\\ 75\\ 74\\ 63\\ 71\\ 75\\ 74\\ 63\\ 71\\ 75\\ 74\\ 63\\ 71\\ 75\\ 74\\ 63\\ 71\\ 75\\ 74\\ 63\\ 71\\ 75\\ 74\\ 63\\ 71\\ 75\\ 74\\ 63\\ 71\\ 75\\ 74\\ 63\\ 71\\ 75\\ 74\\ 63\\ 71\\ 75\\ 74\\ 63\\ 71\\ 75\\ 74\\ 63\\ 75\\ 74\\ 63\\ 75\\ 74\\ 63\\ 75\\ 74\\ 65\\ 71\\ 75\\ 74\\ 65\\ 71\\ 75\\ 74\\ 65\\ 71\\ 75\\ 74\\ 65\\ 71\\ 75\\ 74\\ 65\\ 71\\ 75\\ 74\\ 65\\ 71\\ 75\\ 74\\ 65\\ 71\\ 75\\ 74\\ 65\\ 71\\ 75\\ 74\\ 65\\ 71\\ 75\\ 74\\ 65\\ 71\\ 75\\ 74\\ 65\\ 71\\ 75\\ 74\\ 65\\ 71\\ 75\\ 74\\ 65\\ 71\\ 75\\ 74\\ 65\\ 71\\ 75\\ 74\\ 65\\ 71\\ 75\\ 74\\ 65\\ 71\\ 75\\ 74\\ 65\\ 71\\ 75\\ 74\\ 65\\ 75\\ 74\\ 65\\ 75\\ 74\\ 65\\ 75\\ 74\\ 65\\ 75\\ 74\\ 65\\ 75\\ 74\\ 65\\ 75\\ 74\\ 65\\ 75\\ 74\\ 65\\ 75\\ 74\\ 65\\ 75\\ 74\\ 65\\ 75\\ 75\\ 75\\ 75\\ 75\\ 75\\ 75\\ 75\\ 75\\ 7$	6 11 17 17 10 37 30 98 4 26 25 76 67 177 52 97 07 8	2359522986368860848829676466164472290	665455754949795473150063528255033	17 16 19 16 20 18 17 20 10 16 20 18 20 18 20 16 20 16 20 16 20 18 20 18 20 18 20 18 20 18 20 18 20 18 20 18 20 18 20 18 20 18 20 18 20 18 20 20 20 20 20 20 20 20 20 20 20 20 20	$\begin{array}{c} 14\\ 17\\ 14\\ 15\\ 21\\ 13\\ 13\\ 17\\ 8\\ 16\\ 18\\ 15\\ 12\\ 25\\ 10\\ 11\\ 5\\ 16\\ 22\\ 6\\ 14\\ 16\\ 5\\ 13\\ 18\end{array}$	373129399547016001429907860640837504	7311552902199089429185253151453078942918525315145307894291852531551453078942918525592642078	$\begin{array}{c} 138\\ 135\\ 158\\ 125\\ 139\\ 158\\ 125\\ 139\\ 158\\ 144\\ 100\\ 158\\ 126\\ 158\\ 126\\ 158\\ 132\\ 150\\ 145\\ 161\\ 152\\ 146\\ 155\\ 148\\ 173\\ 132 \end{array}$
72	10 43	71 65	49	23 28	9 12	19 20	10 21	40 41	33 85	153 154

Scores on Preliminary and Final Tests

# for 200 Students

	Pre- test Part I	Final test Part I	Pre- test Part II	Final test Part II	Pre- test Part III	Final test Part III	Pre- test Part IV	Final test Part IV	Pre- test Total Score	Final test Total Score	
74 75 77 78 90 81 83 84 85 86 88 90 91 93 94 95 97 99 90 102 102	test Part I 20 8 23 18 8 324 324 8 23 18 8 23 18 8 23 18 8 23 18 8 23 18 8 23 24 32 4 32 4 32 4 32 9 10 24 53 6 6 20 24 5 2 5 18 23 18 8 23 19 10 24 18 8 23 19 10 24 23 18 8 23 19 10 24 25 18 2 29 10 24 23 18 2 29 10 24 25 2 29 10 24 25 2 29 10 24 25 2 29 10 24 25 2 29 10 24 25 2 29 10 24 25 2 29 20 24 25 2 29 24 25 2 29 24 25 2 29 24 25 2 29 24 25 2 29 24 25 2 29 24 25 2 29 24 25 2 29 24 25 2 29 24 25 2 29 24 25 2 29 24 25 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	test Part 1 69 69 66 72 55 72 71 64 8 55 72 71 64 8 55 72 71 64 8 55 72 71 64 8 55 72 71 64 8 55 72 71 64 8 55 72 71 64 8 55 72 71 64 8 55 72 71 64 8 55 72 71 64 8 55 72 71 64 8 55 72 71 64 8 55 72 71 64 8 55 72 71 64 8 55 72 71 64 8 55 66 72 71 64 8 55 72 71 64 8 55 72 71 64 8 55 72 71 64 8 55 72 71 64 8 55 66 72 71 64 8 55 65 72 71 64 8 55 65 72 71 64 8 55 65 72 71 65 65 72 71 65 55 72 71 65 75 72 71 65 75 72 71 65 55 72 71 65 65 72 71 65 75 72 71 65 75 72 71 65 75 72 71 65 75 72 71 65 75 72 71 65 75 72 71 65 75 72 71 75 55 72 71 71 65 72 71 75 72 71 65 72 71 75 72 71 75 72 71 65 72 77 75 72 77 75 72 77 75 72 77 75 72 77 75 72 77 75 72 77 75 72 77 75 72 77 75 72 77 75 72 77 75 75 72 77 75 75 72 77 75 72 77 75 72 77 75 72 77 75 75 77 75 75 77 75 75 77 75 75 77 75 75	test Part II 720611478601280170015585413810515	test Part II 28 29 28 29 28 29 27 26 28 29 27 26 28 29 27 28 29 28 29 27 28 29 29 28 29 2 29 28 29 2 2 29 2 2 29 2 2 29 2 2 2 29 2 2 29 2	test Part 10 19 10 55 85 65 55 07 84 99 95 96 04 88 7 13	test Part III 19 20 20 14 20 17 19 19 20 20 14 20 17 19 15 18 11 17 20 20 16 17 17 20 20 15 19 20 20 14 19 19 5 18 11 7 20 20 14 20 20 14 20 20 14 20 20 14 20 20 14 20 20 14 20 20 19 19 20 20 19 19 20 20 19 19 20 20 19 19 20 20 19 19 20 20 19 19 20 20 19 19 20 20 19 19 20 20 17 19 19 20 20 17 19 19 20 20 17 19 19 20 20 17 19 19 20 20 17 19 19 20 20 17 19 19 20 20 17 19 19 20 20 17 19 19 20 20 17 19 19 20 20 17 19 19 20 20 17 19 19 20 20 17 19 19 20 20 17 19 19 15 18 11 7 20 20 17 19 19 20 20 17 19 19 15 18 11 7 20 20 17 19 19 15 18 11 7 7 20 20 16 17 17 17 20 20 16 17 17 17 20 20 16 17 17 17 20 20 16 17 17 17 20 20 16 17 17 17 20 20 15 19 19 19 15 18 11 17 20 20 15 19 20 15 19 20 20 119 20 20 15 19 20 20 119 20 20 119 20 20 119 20 20 20 119 20 20 20 119 20 20 119 20 20 20 20 117 20 20 20 15 19 20 20 20 15 19 20 20 117 20 20 20 15 19 20 20 15 19 20 20 15 19 20 20 15 19 20 20 20 20 15 20 20 19 20 20 20 20 20 20 15 20 20 20 20 20 20 20 20 20 20 20 20 20	test Part IV 14 10 11 15 8 4 15 20 15 12 6 88 16 12 6 88 16 12 6 82 13 14 7 7 7 8 11 8 9	test Part IV 48 49 35 40 22 35 39 36 37 8 22 39 36 37 8 22 39 36 37 8 22 39 31 27 8 26 37 8 22 39 31 27 8 26 37 22 8 40 235 37 8 22 37 7 8 22 37 8 22 37 8 22 37 7 8 22 8 2 37 7 7 22 8 22 8	test Total Score 41 20 45 48 18 48 62 55 31 55 25 30 652 52 70 24 59 10 63 55 1 41 53 69 44 99 4	test Total Score 164 166 149 161 110 148 149 145 148 130 151 100 145 131 153 143 154 124 140 164 156 137 167 159 154 123 158 133 136 155	
104 105 106 107 108 109	14 37 15 48 45 38	59 60 61 63 66 73	5 3 5 10 8 7	27 20 17 28 30 29	10 0 4 7 4 0	17 18 15 18 20 18	8 19 10 17 23 14	47 42 37 39 43 31	37 59 34 82 80 59	150 140 130 148 159 151	

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# Scores on Preliminary and Final Tests

#### for 200 Students

1102370927719113850111296382431616365611223564256141128441132870726519144554114146252411512293216115407013278172238831711540701327817223883116117286411264162035631181201861427518153542171201861427518153542171223966122791917327717123296762821715465217124497282810202129881712510724306201137312412915701266261137312412915701281020212988171		Pre- test Part I	Final test Part I	Pre- test Part II	Final test Part II	Pre- test Part III	Final test Part III	Pre- test Part IV	Final test Part IV	Pre- test Total Score	Final test Total Score
141       11       63       3       28       1       18       8       42       23       1         142       24       75       12       27       0       20       45       42       81       1         143       26       65       4       21       3       17       10       22       43       13	$\begin{array}{c} 110\\ 111\\ 112\\ 113\\ 114\\ 115\\ 116\\ 117\\ 118\\ 119\\ 120\\ 121\\ 122\\ 123\\ 124\\ 125\\ 126\\ 127\\ 128\\ 129\\ 130\\ 131\\ 132\\ 133\\ 134\\ 135\\ 136\\ 137\\ 138\\ 139\\ 140 \end{array}$	Part I 23922840218799940678551475288255226	Part 1 70 63 56 70 62 70 57 64 64 57 61 75 66 72 72 71 65 20 67 68 64 66 69 66 63 64 66 9 66 63 64 66 9	Part 9 8 4 7 5 1 5 4 7 2 6 8 4 2 9 1 3 0 7 5 1 2 1 3 1 5 4 7 2 6 8 4 2 9 1 3 5 1 1 5 4 7 2 6 8 4 2 9 1 3 5 1 1 5 4 7 2 6 8 4 2 9 1 3 5 1 1 5 1 1 5 4 7 2 6 8 4 2 9 1 3 5 1 1 5 4 7 2 6 8 4 2 9 1 3 5 1 1 5 4 7 2 6 8 4 2 9 1 3 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 5 1 1 5 1 5 1 1 5 1 5 1 1 5 1 1 5 1 5 1 5 1 5 1 5 1 8 3 4 2 9 1 3 0 7 5 1 8 3 4 2 9 1 3 0 7 5 1 8 3 4 2 9 1 3 0 7 5 1 8 3 4 2 9 1 3 0 7 5 1 8 3 4 2 9 1 3 0 7 5 1 8 3 4 2 9 1 3 0 7 5 1 8 3 4 2 9 1 3 0 7 5 1 8 3 4 2 9 1 3 0 7 5 1 8 3 4 2 9 1 3 0 7 5 1 8 3 4 2 9 1 3 0 7 5 1 8 3 4 2 9 1 3 0 7 5 1 8 3 1 8 8 8 8 8 8 8 8 8 8 8 8 8	Part II 27 24 25 26 27 26 27 26 27 27 28 20 27 28 20 27 28 20 27 26 25 27 27 28 20 27 28 20 27 26 27 27 28 20 27 20 27 28 20 27 28 20 27 20 27 20 27 20 27 20 27 20 27 20 27 20 27 20 27 20 27 20 27 20 27 20 20 20 27 20 20 20 27 20 20 20 20 20 20 20 20 20 20 20 20 20	Part 111 7 3 6 5 1 8 9 4 0 4 5 3 9 2 10 6 9 4 5 8 4 2 10 5 3 3 0 0 13 0 7	Part III 19 16 14 19 15 17 18 20 17 18 20 19 17 20 20 18 18 18 18 18 18 18 19 15 17 20 20 15 20 15 20 15 20 15 20 15 20 15 17 18	Part IV 11 16 11 14 12 22 13 20 4 13 15 18 17 15 21 14 16 19 10 18 17 12 6 18 19 14 7 7 8 13	Part IV 38 36 28 45 29 38 31 35 20 35 20 35 20 35 20 35 20 35 20 35 20 35 20 35 20 35 20 35 20 35 20 37 34 30 47 26 36 49 37 37 4 30 47 37 37 4 30 37 37 4 30 37 37 4 30 37 37 4 30 37 37 37 4 30 37 37 37 4 30 37 37 37 4 30 37 37 37 37 37 37 37 37 37 37 37 37 37	Total Score 50 56 44 54 32 83 48 63 17 24 42 75 77 52 88 31 57 57 34 63 43 28 72 61 59 22 58 51 59 22 55 58	Total Score 154 139 123 160 130 152 132 141 131 128 141 158 149 159 153 141 144 159 153 141 144 159 135 141 149 165 146 157 133 145 143 147
144 16 64 11 22 12 20 18 43 57 J	141 142 143 144	11 24 26 16	63 75 65 64	12 3 12 4 11	28 27 21 22	1 0 3 12	18 20 17 20	15 8 45 10 18	42 42 42 43	23 81 43 57	151 164 125 149

Scores on Preliminary and Final Tests

#### for 200 Students

(First column to left student score)

	Pre- test Part I	Final test Part I	Pre- test Part II	Final test Part II	Pre- test Part III	Final test Part III	Pre- test Part IV	Final test Part IV	Pre- test Total Score	Final test Total Score
$\begin{array}{r} 146\\ 147\\ 148\\ 149\\ 150\\ 151\\ 152\\ 153\\ 154\\ 155\\ 156\\ 157\\ 158\\ 159\\ 160\\ 161\\ 162\\ 163\\ 164\\ 165\\ 166\\ 167\\ 168\\ 169\\ 169\\ \end{array}$	test Part I 317 246 19 36 19 29 20 20 20 20 20 20 20 20 20 20 20 20 20	test Part I 68 74 63 63 63 64 64 73 72 70 71 66 65 63 66 65 65 66 65 65 65 59	test Part II 268231724736369994254137333	test Part II 19 26 29 16 24 24 24 24 29 27 23 25 27 23 25 27 23 25 27 23 25 27 23 25 27 25 27 25 27 25 27 25 27 25 27 25 27 25 27 25 27 25 27 25 27 25 27 25 27 25 27 25 27 25 27 25 26 29 27 25 25 26 29 26 29 27 25 25 26 29 27 25 25 26 27 25 26 29 26 29 27 25 29 26 29 27 25 26 29 27 25 25 26 29 27 25 25 25 26 27 25 26 29 26 29 27 25 26 29 25 26 29 27 25 26 29 27 25 26 29 26 29 27 25 26 29 26 29 27 25 26 27 25 26 27 25 26 27 25 26 27 25 26 27 25 26 27 25 26 27 25 26 27 25 26 27 25 26 27 25 26 27 25 26 27 25 26 27 25 26 27 22 25 26 27 25 26 27 22 25 26 27 25 26 27 25 26 27 25 26 27 25 25 26 27 25 26 27 25 25 25 27 25 25 26 27 25 25 25 25 25 25 25 25 25 25 25 25 25	178- test Part III 17321843046015891167484645	rinal test Part III 15 20 20 17 16 20 17 16 20 18 19 19 19 19 19 19 19 19 19 19 19 19 19	test Part IV 10 8 12 5 6 24 11 15 11 14 15 11 14 17 13 19 15 10 16 13 18 18 5 9 10 11	rinal test Part IV 35 48 35 28 46 51 40 48 52 35 44 49 39 22 36 40 44 42 40 9 42 33	rre- test Total Score 16 38 47 25 29 85 35 41 30 30 49 19 56 51 51 74 63 41 81 79 33 42 62 40	Finel         test         Total         Score         137         168         158         124         134         163         156         147         160         171         147         158         167         150         136         128         143         150         163         152         151         110         152         134
170 171 172 173 174 175 176 177 178 179 180 181 182	37 44 29 53 45 28 25 26 19 30 20 43 23	70 63 66 64 71 71 70 60 66 65 64 69 66	7 8 4 7 9 5 1 6 3 16 8 14 11	30 26 25 27 26 28 28 28 28 28 28 28 20 30 29 29	13 29 84 63 53 83 77	20 19 20 19 20 18 19 17 18 19 19 18 19	$   \begin{array}{r}     17 \\     12 \\     14 \\     16 \\     24 \\     13 \\     12 \\     14 \\     33 \\     15 \\     22 \\     18 \\   \end{array} $	$\begin{array}{c} 46\\ 44\\ 46\\ 41\\ 47\\ 44\\ 38\\ 42\\ 48\\ 42\\ 48\\ 44\\ 44\\ 44\\ 44\end{array}$	74 66 56 82 52 49 39 846 86 59	166 152 157 151 164 161 155 137 154 156 161 160 158

Scores on Preliminary and Final Tests

# for 200 Students

	Pre- test Part	Final test Part T	Pre- test Part TT	Final test Part TT	Pre- test Part	Final test Part III	Pre- test Part TV	Final test Part TV	Pre- test Total	Final test Total Score
				**	***				00010	00010
183	6	63	2	23	3	19	9	35	20	140
184	16	62	4	29	3	16	12	33	35	140
185	22	70	11	29	. 5	17	13	38	51	154
186	52	67	10	30	13	19	24	43	99	159
187	28	56	6	19	0	16	14	27	48	118
188	8	52	4	25	4	11	14	25	30	113
189	32	62	9	29	7	18	18	36	66	145
190	23	67	7	29	8	20	6	45	44	161
191	48	71	9	29	8	20	10	29	75	149
192	26	72	5	29	7	17	9	36	47	154
193	26	67	14	28	7	15	13	41	60	151
194	47	63	11	28	12	19	8	38	78	148
195	33	63	11	27	7	18	13	32	64	140
196	13	60	3	22	0	17	8	29	24	128
197	19	60	3	29	7	18	5	29	34	136
198	18	68	6	23	3	18	6	33	33	142
199	22	63	3	19	0	18	12	26	37	126
200	19	63	10	28	8	20	29	48	46	159

# Rank Order File of Total Scores for

# Preliminary Test Found in Table I

Total scores in rank file order for two hundred students in the preliminary test. The highest score is placed first and lowest score last.

110	75	64	58	51	45	38	30
98	75	63	58	51	45	38	30
94	75	63	58	51	45	38	29
91	74	63	57	51	45	37	28
91	74	63	57	51	44	37	25
89	74	62	57	51	44	37	25
88	74	62	57	51	44	36	25
87	73	62	56	50	43	35	24
86	73	62	56	49	43	35	21
85	73	61	56	49	43	35	21
85	72	61	55	10	10	35	01
84	72	61	55	40	40	30	64
84	77	61	55	49	46	54	60
93	71	61	55	49	46	54	20
83	70	60	54	49	46	54	22
07	70	60	54	49	41	00	22
00	70	60	54	48	41	33	20
82	70	60	55	48	41	33	20
82	69	60	53	48	41	33	20
81	69	59	52	48	41	32	20
81	66	59	52	47	41	31	19
80	66	59	52	47	40	31	18
79	66	59	52	47	40	31	18
78	65	59	52	47	40	30	17
78	65	59	52	46	39	30	16
77	64	58	51	46	39	30	12

#### Rank Order File of Total Scores for

# Final Test Found in Table I

Total scores in rank order file for two hundred students in final test. Highest score is placed first and lowest score last.

173	161	156	152	148	143	137	128
171	160	156	152	148	143	136	128
168	160	156	152	148	142	136	126
167	160	156	152	148	142	136	126
167	160	156	152	148	141	135	126
167	159	155	151	148	141	135	126
167	159	155	151	148	141	135	125
166	159	155	151	147	141	135	125
166	159	154	151	147	141	134	124
165	159	154	151	147	141	134	124
164	159	154	151	146	141	134	121
164	158	154	151	146	140	133	101
161	150	154	150	145	140	177	107
164	150	154	150	140	140	100	107
104	100	104	150	140	140	100	120
164	158	154	150	145	140	132	120
163	158	154	150	145	140	132	120
163	158	153	150	145	140	132	118
162	158	153	150	144	139	131	116
162	158	153	150	144	139	131	114
162	158	153	149	144	139	131	113
161	158	153	149	144	138	131	110
161	157	153	149	144	138	130	110
161	157	153	149	143	137	130	110
161	157	153	149	143	137	128	107
161	157	152	149	143	137	128	100

#### TABLE II

Results Obtained from Table I

(Preliminary test given before taking textile course in college)

Number of Students	Range of Grades	Median	Mean	Mode	Standard Deviation
200	12 - 110	52	52	51	±20.360

Results Obtained from Table I

(Final test given after taking textile course in college)

Number of Students	Range of Grades	Median	Mean	Mode	Standard Deviation
200	100 - 173	148	147	158	±13.972

# Description of Facts Obtained From Results of Preliminary Test and Final Test Given to 200 Students

The lowest score made by a student on the preliminary test was 12. This student had had no previous training in textiles. She did not give the name of the high school she had attended. This student's score in the final test was 133, which was below the class average of 148.

The second lowest score of the preliminary test was 16. The student making this score had had clothing construction in college, but no high school training in textiles. The student did not give the name of the high school she had attended. This student's score on the final test was 137, which was below the class average of 148.

The information given above indicated that the two lowest grades were received by students who had had no high school clothing or textile courses. Their scores on the final test were below the class average, which fact was due perhaps to lack of interest in the subject or low scholastic ability.

The highest score obtained by a student on the preliminary test was 110. This student made a score of 164 on the final test. She had had no previous training in textiles and came from a small high school. She stated at the close of the preliminary test that she had guessed at most of the answers. Her vocabulary and ability to answer the questions seemed proof, however, that she had some knowledge of textiles from a previous source.

Final Test, Table I. The lowest score made by a student in the final test was 100 out of a possible 181 points. This student had obtained a little over fifty per cent of the material given in the course. She scored 25 on the preliminary test. She came from a large high school and had had no previous training in textiles.

The second lowest score on the final test was 107. This student scored 25 on the preliminary test. She had gained very little knowledge during the textile course. She was graduated from a small high school, and had had no previous training in textiles.

The highest score obtained by a student in the final test was 173 points. This student's score in the preliminary test was 47. She had had no previous training in clothing or textiles and came from a small high school.

The second highest score in the final test was 171 points. The student making this score made 30 points in the preliminary test. She had had no previous training

in textiles. She had not received her high school training in the United States.

Forty-nine students made perfect scores of 20 points in the final test on Part III, which is a matching of definitions. Eight students made perfect scores of 30 points in the final test in Part II, which is recall. The lowest scores in the final test were made on Part IV of the test, which included identification of fabrics, kinds of weaves, types of prints, types of dyeing, and special finishes of fabrics.

Two young men were in the classes. They had had no previous training in textiles. One man received a score of 38 on the preliminary test and a score of 150 on the final test. The second man made a score of 45 on the preliminary test and a score of 125 points on the final test. This final score was below the average of the class.

The spelling was checked in both preliminary and final tests. Misspelled words were noted but not scored. Students should learn to spell the words which comprise the vocabulary involved in their subjects. Thirty-three different words were misspelled. There were one hundred fifty-nine words misspelled in the preliminary test and fifty-three words misspelled in the final test. Taffeta was misspelled forty-six times in

the preliminary test and only two times in the final test. A few words spelled correctly in the preliminary test were misspelled in the final test.

# List of Words Misspelled in

Preliminary and Final Tests

	I	rel	Li	nina	ry	tes	t	F	in	al t	est
		no	).	OT	tim	es		no		of t	imes
			Lak	3500	TT0	<u>u</u>		m	LS	sper	Tea
buckram				5						3	
cellophane .				3			•		•	1	
chardonnet .			1	0	10			•	•	77	
challis .				12		•	•	•	•	5	
celanese.				10				•		0	
chintz			•	1	•	•	•	•	•	0	
cretonne	•		•	31	•	•	•		•	0	
crepe de Chine	•	•	•	04	•	•		•	•	9	
dimiter	•	•	•	R E		•	•	•	•	0	
foille	•	•	•	5	•	•	•	•	•	2	
faile	•	•	•	0	•	•	•	•		2	
Ifleze	•	•	•	0				•	•	2	
Jackquard .		•	•	0	•	•				1	
kasha	•	•	•	0						2	
Lappet			•	0						1	
lead				2						1	
leno				0						1	
linen				6						0	
moire				6						0	
mohair velour .				3						õ	
organdy				2						õ	
plisse crepe .				3			1			2	
pongee				9						õ	
poiret twill .				1	1					õ	
pile weave				1	1.1	100				0	
pure dve				7				•	•	0	
Roshanara crepe			1	ō		•	•		•	5	
shoddy			•	ĩ		•	•	•	•	0	
seersucker		•	•	0	1	•	•	•	•	1	
servated edge			•	0	•			•	•	1 Z	
gwivel		•	•	1		•	•	•	•	0	
toffato		•	•	16	•	•	•	•	•	0	
valleur		•	•	40	•	•	•	•	•	2	
verour		•	•	1		•	•	•	•	0	
ATLETU		•	•	T	•		•	•	•	0	

#### TABLE III

Scores on Preliminary and Final Tests for 61 Students, with Textile Training in High School (First column to left student number)

	Pre- test Part I	Final test Part I	Pre- test Part II	Final test Part II	Pre- test Part III	Final test Part III	Pre- test Part IV	Final test Part IV	Pre- test Total Score	Final test Total Score
l	15	62	10	23	8	16	11	32	44	133
2	39	63	7	26	8	17	16	48	70	154
3	47	64	15	30	13	15	19	46	94	155
4	24	71	4	28	6	20	7	40	41	159
5	20	72	5	29	9	19	17	47	51	167
6	26	55	8	26	5	15	14	41	53	137
7	19	69	. 7	27	8	19	14	41	48	156
8	47	70	4	28	9	19	13	44	83	161
9	33	61	6	29	8	19	15	41	62	150
10	23	67	9	26	9	19	19	36	60	148
11	44	62	9	25	4	16	16	34	73	137
12	43	66	4	26	TT	18	15	43	73	153
13	28	62	5	27	5	18	19	34	57	141
14	49	70	74	28	12	20	14	00	80	100
10	40	60	14	01	TT	19	75	41	74 51	107
10	20	66	17	24	4	20	10	10	22	141
19	20	77	5	28	4	18	13	40	52	161
19	20	66	4	25	g	20	14	46	56	157
20	32	73	9	28	6	19	14	34	61	154
21	25	63	7	23	13	15	17	32	62	133
22	31	62	5	24	5	19	14	35	55	140
23	17	71	5	27	2	20	16	35	40	153
24	17	64	4	24	10	17	12	36	43	141
25	59	71	13	28	4	20	22	48	98	167
26	45	69	14	30	4	20	18	44	81	163
27	21	57	5	26	9	18	13	31	48	132
28	42	61	10	26	5	18	13	39	70	144
29	18	65	9	22	9	17	15	32	51	136
30	24	71	7	26	5	19	15	36	51	152
31	30	65	16	29	8	20	33	42	87	156
32	20	64	8	30	3	19	15	48	46	161
33	31	60	6	26	4	18	10	35	51	139
34	17	58	6	20	8	19	7	27	38	124
35	22	61	3	29	3	17	9	28	37	135
36	47	61	6	23	6	17	14	37	73	138

Scores on Preliminary and Final Tests for 61 Students, with Textile Training in High School

					core
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	41 39 39 25 30 24 29 340 28 40 28 40 28 29 31 56 79 326 51	41 65 49 42 39 72 49 24 30 72 91 24 35 49 24 35 15 34 51 35 41 55 41 55 41 55 55 41 55 55 55 55 55 55 55 55 55 5	157 139 158 110 133 114 131 143 160 126 153 149 110 136 152 128 141 152 128 141 152 128 141 152 153 153 155 156

#### Rank Order File of Total Scores for

#### Preliminary Test in Table III

Total scores in rank order file for 61 students with previous high school clothing courses in preliminary test. Highest score received is placed first and lowest score last.

98	62	51	41
94	62	51	40
91	60	49	38
87	59	49	37
83	58	49	35
83	57	49	34
83	56	48	33
81	55	46	33
74	54	45	33
73	53	44	32
73	52	43	29
73	52	42	24
72	51	42	24
70	51	41	22
70	51	41	18
65			

#### Rank Order File of Total Scores for

#### Final Test in Table III

Total scores in rank order file for 61 students with previous high school clothing courses, in final test. Highest score received is placed first and lowest score last.

167	156	144	136
167	155	143	135
163	154	142	134
161	154	141	134
161	153	141	133
161	153	141	133
160	153	141	133
159	153	140	132
158	153	139	131
158	152	139	130
158	152	138	128
157	150	137	126
157	150	137	114
156	149	136	110
156	148	136	110
156			

#### TABLE IV

Results Obtained from Table III

(Preliminary test given to students with previous high school work in textiles)

Number of Students	Range of Grades	Median	Mean	Mode	Standard Deviation
60	18 - 98	51	52	51	±22.88

#### Results Obtained from Table III

(Final test given to students with previous high school work in textiles)

Number of Students	Range of Grades	Median	Mean	Mode	Standard Deviation
60	110 - 167	144	143	153	<b>±12.</b> 496

#### TABLE V

Scores on Preliminary and Final Tests for 123 Students without High School Training in Textiles

	Pre- test Part I	Final test Part I	Pre- test Part II	Final test Part II	Pre- test Part III	Final test Part III	Pre- test Part IV	Final test Part IV	Pre- test Total Score	Final test Total Score
l	21	66	7	24	6	20	11	36	45	146
2	13	67	1	26	3	18	5	50	22	161
3	30	70	7	21	2	20	16	34	55	145
4	35	70	9	24	5	18	14	43	63	155
55	35	67	8	24	7	14	8	27	58	132
6	19	65	4	25	5	16	14	36	42	142
7	35	56	11	23	7	16	18	31	71	126
8	27	61	11	25	6	16	17	33	61	135
9	19	52	7	25	4	16	15	32	45	125
10	28	72	7	29	5	20	12	33	52	154
11	34	74	10	26	9	18	16	40	69	158
12	25	70	6	27	13	20	18	36	52	153
13	27	67	8	29	8	19	17	42	60	157
14	19	66	3	28	3	18	14	42	39	154
15	43	69	14	29	7	18	22	44	86	160
10	10	60	2	23	3	19	9	35	20	140
10	10	02	4	29	3	16	12	33	35	140
10	20	70	TT	29	5	17	13	38	51	154
20	04	50	0	19	0	10	14	27	48	118
21	32	62	9	20	4	18	14	20	50	113
22	7	62	2	27	5	17	16	30	30	145
23	41	62	8	18	5	20	12	31	66	131
24	36	63	Õ	28	Õ	20	16	42	52	153
25	20	64	11	26	7	16	14	37	52	143
26	15	65	0	22	0	16	5	45	20	148
27	24	74	7	29	3	20	13	50	47	173
28	29	63	8	20	3	15	18	34	58	132
29	27	63	7	28	9	19	8	28	51	138
30	33	65	9	28	12	20	31	41	85	154
31	20	69	7	28	0	19	14	48	41	164
.32	8	69	2	29	0	19	10	49	20	166
33	18	72	6	29	9	20	15	40	48	161
34	13	66	1	27	0	20	4	35	18	148
35	38	58	9	20	7	17	16	31	70	126

Scores on Preliminary and Final Tests for 123 Students without High School Training in Textiles (First column to left student number)

-	Pre- test Part I	Final test Part I	Pre- test Part II	Final test Part II	Pre- test Part III	Final test Part III	Pre- test Part IV	Final test Part IV	Pre- test Total Score	Final test Total Score	
36 37	43 37	74 67	8 12	28 28	9 14	20 20	18 21	36 41	78 84	158 156	
39 40	15 19	68 66	15 7 6	29 26 27	11 5 0	20 16 20	25 11 10	39 40 37	91 38 35	162 150 150	
41 42 43	12 47 39	64 75	1 7 12	27 30	030	20 20	4	20 42	17 75	131 167	
44 45	49 17	72 65	8 10	28 24	10 14	20 18	21 16	32 29 34	88 57	144 149 141	
46 47 48	10 54 35	72 70 64	4 15 1	30 29 27	6 9 0	20 20 20	11 32	37 45	31 110	159 164	
49 50	18 42	48 73	38	24 29	4 8	14 19	8	37 37	33 69	123 158	
52 53	15 48	61 63	5 10	17 28	0 4 7	18 15 18	19 10 17	42 27 39	59 34 82	140 120 148	
54 55 56	45 38 23	66 73 70	8 7 9	30 29 27	407	20 18 19	23 14 11	43 31 38	80 59 50	159 151 154	
57 58 59	24 30 4	67 61 62	4 7 9	26 29 20	556	17 19	15 20	39 36	48 62	149 145	
60 61	11 24	50 74	1 8	17 29	53	11 20	8 12	42 22 35	25 47	100 158	
63 64	16 36 9	63 73 73	17 3	16 24 27	2 8 4	17 20 19	5 24 14	28 45 52	25 85 <b>3</b> 0	124 162 171	
65 66 67	26 9 22	72 70 71	6 3 6	23 25 28	6 0 15	17 19 19	11 7 13	35 44 49	49 19 56	147 158	
68 69	13 22	60 63	33	22 19	0	17 18	8 12	29 26	24 37	128 126	
70	15 42	69	29	27	53	20 20	6 18	36 49	28 72	149 165	

Scores on Preliminary and Final Tests for 123 Students without High School Training in Textiles (First column to left student number)

							- marine and	and the second sec	and and the second	and the second second	
	Pre- test Part I	Final test Part I	Pre- test Part II	Final test Part II	Pre- test Part III	Final test Part III	Pre- test Part IV	Final test Part IV	Pre- test Total Score	Final test Total Score	
70	22	66	5	03	0	מ ר	0	777	75	7.47	-
73	26	69	12	26	7	18	13	34	58	143	
74	11	63		28	i	18	8	42	23	151	
75	24	75	12	27	0	20	45	42	81	164	
76	16	64	11	22	12	20	18	43	57	149	
77	29	63	8	24	3	16	16	36	56	139	
78	23	56	4	25	6	14	11	28	44	123	
80	28	-70 61	0	20	5	19	14	45	54	160	
81	10	61	0	22	0	19	10	32	20	140	
82	42	66	3	28	õ	20	14	43	59	157	
83	45	65	3	27	4	18	10	42	62	152	
84	40	65	13	27	8	17	18	42	79	151	
85	29	66	12	23	6	18	16	36	63	143	
86	49	63	4	23	11	20	10	22	74	128	
87	24	50	0 3	19	6 5	19	9	19	42	110	
89	44	63	8	26	2	19	12	44	40	152	
90	15	70	1	26	8	18	10	30	34	144	
91	13	59	3	22	4	14	10	25	30	120	
92	41	68	3	25	2	15	17	27	63	135	
93	34	63	3	28	4	20	8	27	49	138	
94	38	75	7	26	9 5	17	17	34	71	150	
96	26	65	4	21	3	17	10	40	43	100	
97	37	70	7	30	13	20	17	46	74	166	
98	45	71	9	26	4	20	24	47	82	164	
99	25	70	1	28	3	19	12	38	41	155	
100	3	68	2	19	1	15	10	35	16	137	
101	42	59	0	26	9	17	8	38	59	140	
102	10	50	6	25	4 5	17	10	20	24	124	
104	24	64	g	28	0	10	15	20	55	140	
105	14	59	5	27	10	17	8	47	37	150	
106	36	73	5	28	9	20	13	35	63	156	
107	9	57	5	15	4	16	7	19	25	107	

Scores on Preliminary and Final Tests for 123 Students without High School Training in Textiles

	Pre- test Part I	Final test Part I	Pre- test Part II	Final test Part II	Pre- test PPart III	Final test Part III	Pre- test Part IV	Final test Part IV	Pre- test Total Score	Final test Total Score	
109	26	50	0	06	0	10	7.17	47	00	2.4.4	
100	10	59	10	20	77	18	11	41	60	144	
100	46	07	10	69	TO	20	24	40	89	159	
110	20	66	TT	29	1	19	18	44	59	158	
TTT	31	67	8	26	4	19	18	47	61	159	
112	28	66	11	27	3	15	19	38	61	146	
113	45	71	9	26	4	20	24	47	82	164	
114	53	64	7	27	8	19	16	41	84	151	
115	33	66	6	28	7	18	15	46	61	158	
116	29	71	8	25	9	20	11	47	57	163	
117	26	60	6	26	5	17	12	34	10	137	
118	23	67	7	29	8	20	10	15	10	161	
110	18	77	0	20	0	20	10	40	44	101	
100	10	11	5	63	0	20	TO	29	75	149	
120	20	62	5	29	1	17	9	36	47	144	
151	26	67	14	28	7	15	13	41	60	151	
122	47	63	11	28	12	19	8	38	78	148	
123	33	63	11	27	7	18	13	32	64	140	

#### Rank Order File of Total Scores for

# Preliminary Test in Table V

Total s cores in rank order file for 123 students with no previous high school clothing courses in preliminary test. Highest score received is place first and lowest score last.

110	70	59	48	33
91	69	59	47	31
89	69	58	47	31
88	66	58	47	30
86	66	58	45	30
85	66	57	45	30
85	64	57	44	30
84	63	57	44	28
84	63	56	43	25
82	63	56	42	25
82	63	55	10	25
82	63	55	27	20
81	62	54	17	04
80	62	57	41	64
79	61	50	40	20
70	61	50	40	22
70	61	50	39	20
10	61	50	38	20
77	61	52	57	20
75	60	DL FO	37	20
75	60	50	30	19
74	60	49	35	18
74	60	49	35	17
12	59	49	34	16
71	59	48	34	12
11	59	48		

# Rank Order File of Total Scores for

# Final Test in Table V

Total scores in rank order file for 123 students with no previous high school clothing courses in final test. Highest score received is placed first and lowest score last.

173	158		151	144	134
171	158		151	144	132
167	158		151	144	132
167	158	1. T	150	144	131
166	158		150	143	131
166	158		150	143	130
165	157		150	143	128
164	157		149	143	128
164	156		149	142	126
164	156		149	141	126
164	155		149	141	126
164	155		148	140	125
163	155		148	140	125
162	154		148	140	124
162	154		148	140	124
161	154		148	140	123
161	154		147	139	123
161	154		147	138	120
160	154		146	138	120
160	153		146	137	118
159	153		145	137	113
159	152		145	135	110
159	152		145	135	107
159	151		145	134	100
158	151		145		

#### TABLE VI

#### Results Obtained from Table V

(Preliminary test for students without previous high school textiles)

Number of Students	Range of Grades	Median	Mean	Mode	Standard Deviation
123	12 - 110	54	54	63	±20.284

#### Results Obtained from Table V

(Final test for students without previous high school textiles)

Number of Students	Range of Grades	Median	Mean	Mode	Standard Deviation
123	100 - 173	149	145	158	±14.910

# Discussion of Facts Obtained From Results of Preliminary and Final Tests of Those Students With and Without Previous High School Textile Courses

The class average in the preliminary and final tests was two points lower in each test for those students having had high school textile courses than was the average for those students without high school textile courses. Frequently girls that are not going to college are advised in high school to enter the clothing courses. The small difference in this instance is probably due to the greater number of scores of students without previous textile courses in high school than there were scores of students with previous textile training.

The two lowest and the two highest scores in the preliminary and final tests were made by students without previous textile training in high school. This might be contributed to poor and very good scholastic ability. Or it may be contributed to special interest in the course by those making the highest scores.

In the true-false part of the preliminary test, students without high school work in textiles scored higher than did those students with previous study in textiles. In the last part, where identification of textiles, weaves, prints, dyeing, and finishes

was necessary, students with high school work in textiles scored better than did those with no previous textile training. This fact would tend to show students get some knowledge of textiles in their clothing classes in high school, even where they do not have special courses in textiles. In the first instance perhaps the student without previous high school training guessed at the true-false questions, or knew the answers from some other source of study or experience.

Students had greater number of perfect scores in Part III of the final test than in any other part of the test. This is due probably to the fact that there is less memory work involved in matching questions.

The greatest gain was made in Part I of the final test, and the least amount of gain was made in Part IV of the final test. The greater gain of Part I was probably due to the classroom discussion by the teacher and the use of the text book. The gain in Part IV is probably due to lack of time to cover the amount of material given in the course and greater diversity.

The great number of no scores on Part II and III in the preliminary test was probably due to the fact that recall and matching questions need definite knowledge in order to answer them.

Students from the small high schools received as high scores as did the students from the large city schools. This would tend to show the quality of instruction does not depend upon the size of the high school but upon the quality of instruction by the teacher.

#### TABLE VII

# High and Low Scores Obtained on Four Parts of Preliminary and Final Tests

Low	and	high	scores	for	each	division	of	Preliminary	and	Final	tests	for	200	students
-----	-----	------	--------	-----	------	----------	----	-------------	-----	-------	-------	-----	-----	----------

Pre- Par	test t I	Fina Pa	il test irt I	Pre Par	-test t II	Fina Par	l test t II	Pre Par	-test t III	Fina Par	t test t III	Pre Par	-test t IV	Fina	l test t IV
Sc	ores	Sc	ore	Sc	ore	Sc	ores	Sc	ore	Sc	ore	Sc	ore	Sc	ore
Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
2	59	48	75	l	. 17	15	30	l	18	11	20	4	45	19	50

Low and high scores for each division of Preliminary and Final tests for 61 students with textile training in high school

Pre- Par	test t I	Fina Pa	l test rt I	Pre Par	-test t II	Fina Par	l test t II	Pre Par	-test t III	Fina Par	l test t III	Pre Par	-test t IV	Fina Par	l test t IV
Sc	ore	Se	ore	Sc	ore	Sc	ore	Sc	ore	Sc	ore	Sc	ore	Sc	ore
Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
2	59	55	74	l	16	13	30	l	18	15	20	5	33	22	48

#### TABLE VII (continued)

High and Low Scores Obtained on Four Parts of Preliminary and Final Tests

Low and high scores for each division of Preliminary and Final tests for 123 students without previous textile training

Pre- Par	test t I	Fina Pa	il test irt I	Pre Par	-test t II	Fina Par	l test t II	Pre Par	-test t III	Fina Par	l test t III	Pre Par	-test t IV	Fina Par	l test t IV
Sc	ore	Sc	ore	Sc	ore	Sc	ore	Sc	ore	Sc	ore	Sc	ore	Sc	oré
Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
4	47	48	75	l	17	15	30	l	15	11	20	4	45	19	50

#### TABLE VIII

Averages of Total Scores for Each Section of the Preliminary and Final Tests

Average of total scores for each section of the Preliminary and Final Tests for 200 students

Pre-test Part I	Final test Part I	Pre-test Part II	Final test Part II	Pre-test Part III	Final test Part III	Pre-test Part IV	Final test Part IV
				and the second			
26	66	7	26	6	18	14	37

Average of total scores for each section of the Preliminary and Final Tests for 61 students with textile training in high school

Pre-test Part I	Final test Part I	Pre-test Part II	Final test Part II	Pre-test Part III	Final test Part III	Pre-test Part IV	Final test Part IV
26	66	7	25	6	18	14	36

#### TABLE VIII (Continued)

Averages of Total Scores for Each Section of the Preliminary and Final Tests

Average of total scores for each section of the Preliminary and Final Test for 123 students without textile training in high school

26 65 7 26 5	18	14 3	7

# Results Obtained From High and Low Scores, Table VII, and the Average Scores, Table VIII

The averages of total scores obtained by the 61 students with previous textile training in Part I of the preliminary and final tests were 26 and 66, respectively. The averages of the total scores obtained by the 123 students without previous textile training in Part I of the preliminary test and final test were 25 and 66, respectively. The apparent difference is too slight to evaluate.

The averages of total scores for the students without previous textile training and those with previous textile training were about equal in Part II and Part III for the preliminary and final tests.

The average of total scores of Part IV in the final test was 36 for the 61 students with high school textile training, while the average of total scores of Part IV in the final test was 37 for the 123 students without previous textile training. This small difference may be due to the greater number in the group without previous textile training.

No student made a perfect score of 181 points in either the preliminary or final tests. One student without previous textile training made a total score of 75 in Part I of the final test. Forty-nine students made perfect scores of 20 in Part III of the final test. Eleven of these students had had previous textile work and thirty-eight had received no previous work in textiles before taking the course in college. One student without previous textile training scored 45 in Part IV of the preliminary test. This same student scores 42 on Part IV of the final test. This difference was due perhaps to carelesness or lack of time to finish the test.

Seven students did not score in Part II of the preliminary test. Six of these students were without previous textile training. Eighteen students without previous textile training did not score in Part III of the preliminary test, while three students with previous textile training made a score of one in Part III of the preliminary test.

The students without previous textile training made the greater range of scores in Part I and Part IV of the preliminary test. The score range in Part I was 4 to 47 and in Part IV, 4 to 45.

The greatest range of scores made by the students with previous textile training was made in Part I of the preliminary test, 2 to 59.

#### SUMMARY OF FACTS NOTED IN TABLES

In the final test scores the mean 147 was greater than three times the standard deviation ±13.97; this would indicate either that the students had received excellent instruction or that the test might be too easy.

Students from small high schools received as high scores in both preliminary and final tests as did the students from large city schools.

The scores of the final test were much higher for those students in the last two quarters than were the scores for the students of the first two quarters. This might be due to either of two reasons: these students might have been better scholastically than the students of the previous classes; or they might have been told by former students that the test would be given as a final test for the textile course.

The students received the best scores on the true-false and definition parts and lower scores on parts of the test in which they had to depend entirely upon their memories. The true-false and definition parts of the test gave them a suggestion as to what the answer might be.

#### CONCLUSIONS

- Achievement tests may be used to check the amount of accomplishment of students and the type of work done by an instructor.
- 2. It would seem that high school courses could include more work on textiles along with selection and clothing construction classes.
- 3. An appreciable amount of knowledge on textiles is gained through general reading or through other experiences.
- 4. It seems that knowledge obtained does not depend upon the size of the school, but upon the quality of the instruction received and the ability of the student to retain facts.
- 5. The students seemed to receive lower scores on those parts of the test in which their memories alone were depended upon for the answer to questions.
- It would seem that the test is not sufficiently adequate as a satisfactory measure. It should contain more scoring points.

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# APPENDIX

The test
 Key to test

Oregon State College School of Home Economics CT 250 - Final Examination

-	-						
Th.	т	-		-		-	
. 61	ы.	-	17	$r_{r}$	14	63	
	v.		L 1		1.1		
-	•	-				~	

Concession of the local division of the loca

# Part I

Place + in front of true statements and - in front of false.

()	)	1. A blanket with 5% wool may be labeled a wool
(	)	2. Serve is an example of worsted material
ì	í	3. Sni-a-fil is linenized cotton.
i	j	4. The hair fiber has no servated edge.
i	j	5. The fibers for worsted material are combed
		parallel.
(	)	6. Rayon materials may be manufactured from cotton linters.
(	)	7. Shoddy is the same as virgin wool.
(	)	8. The weight of a blanket is a true indication of its warmth.
(	)	9. Noils refers to the short fibers from combed wool.
(	)	10. An acetate is dissolved in acetone.
(	)	11. Tubize is a trade name for a cellulose acetate synthetic.
(	)	12. Kapok is a vegetable fiber.
(	)	13. 90" wool is the preferable length for a blanket.
(	)	14. Wool is weaker when wet than dry.
(	)	15. Hair is used for felted materials.
(	)	16. Bemberg refers to the French type of synthetic.
(	)	17. Dip dye refers to dyed in the finished product.
(	)	18. Trubenized refers to a permanent stiffness on organdy.
(	)	19. Ingrain refers to pressing a stocking.
(	)	20. Asbestos is mined.
(	)	21. Alkali will injure animal fibers.
(	)	22. Pina cloth is made from pineapple plant.
(	)	23. Lan-i-tal is made from milk.
(	)	24. Lastex is a rubber fiber.
(	)	25. Basco is a cotton material.
(	)	26. Boarding refers to pressing a stocking.

(	)	27.	Weft knit material will run.
(	)	28.	Tow refers to the short fibers of linen.
(	)	29.	Wool is a poor conductor of heat.
(	)	30.	Organzine silk filaments are of good quality.
i	j	31.	A piece-dved material will be very fast as to
	'		color when made of wool
1	1	30	Monguigetto is an example of gauge weeks
>	1	27	Marquiserte is an example of gauze weave.
>	1	00.	Molre linish is a watered linish.
5	1	04.	Damask is reversible.
(	)	35.	A full-fashioned stocking has a seam at the
1	1	ZC	Mohodm da amount on the survey witht
1	1	00.	Monair is grown on the angora rabbit.
5	1	5%.	Cashmere 1s classed as hair.
ç	)	38.	Spun silk is made from short filaments.
(	)	39.	Cellophane is a synthetic material.
(	)	40.	The boot of the stocking refers to the leg.
(	)	41.	A circular knit stocking fits better at the
			ankle.
(	)	42.	A shadow print has the design printed on the
	-		warp yarns.
(	)	43.	Kapok is a synthetic fiber.
i	j	44.	Mohair has much resiliency.
i	í	45.	Suede cloth has an emerized finish.
ì	í	46	A colondered finish is normanant
2	1	17	Curthetic tonna and hnown in the nature?
1	'	-1.	state.
(	)	48.	Cotton is stronger when wet than dry.
i	í	49.	Line refers to the long fibers of linen
ì	í	50.	Teazeling refers to the chapping of volvet
2	1	51	A toped adde to a sheet motore to a bear
(	,	01.	thread along the adre of release
1	1	50	At logat 20 par cont of mail logal.
(	,	020	At least 20 per cent of wool should be used
			in a planket to give appreciable warmth
,		E 7	over a cotton blanket.
5	?	50.	kapok is rayon floss.
;	?	54.	Celanese is an acetate.
(	)	55.	An ingrain stocking is one with a dull finish.
(	)	56.	Boarding is a word which refers to the hem of
,			a stocking.
(	)	57.	A full fashion stocking is of silk material
	-		always.
(	)	58.	Ply refers to the numbers of twists per inch
	1		in a yarn.
(	)	59.	Sni-a-fil is a synthetic fabric.
(	)	60.	Tubize is a Gorman method of making rayon.
(	1	61.	Pina cloth is made of manila hemo.
i	1	62.	Sateen has floats made of wern wern
ì	1	63	Grenedine refers to nly used for more
1	1	00.	around torors to bry aped tor. Astur.

) 64. A torn sheet will shrink more than a cut one. ) 65. Lappet is superior to swivel weave. ) 66. Scrim is more desirable than marquisette for a glass curtain. ) 67. A circular knit stocking has the seam of the ( foot at the side. ) 68. The boot of the stocking refers to the foot. ) 69. The Cotton Textils Institute sells sanforized materials. 70. An out size stocking is a half size. ) 71. Durene is a permanent finish on organdy. ) 72. Sanforizing is a finish for rayon. ) 73. Basco is a linen material. 74. Bleaching gives strength to linen. ) 75. Double damask refers to a damask with twice as many threads as single.

Part II - Recall

Directions: In each of the following statements a word or set of words has been omitted. Fill in the blank spaces.

1. Slippage is prevented in thin curtain material by

using the weave.

2. A fabric usually shrinks more in the direction of

the yarn.

Acetate rayons are soluble in the solvent \_\_\_\_\_. 3.

- 4. In weaving, yarns not bound or woven for some distance are called
- An upholstery fabric having an uncut pile is 5. called .
- 6. Many silks are weighted with which may produce a rash on the body.
- Designate by which of the four major methods the 7. following trade-named rayons are made:

	Celanese	
	Bemberg	
	Lustron	
	Rayon	
	Tubize	
8.	Sanforizing refers to shrinkage	
9.	Lastex is a materia:	1.
10.	Spun silk is made from silk	
11.	Pongee is produced by the	
	silk worm.	
12.	Reworked wool is referred to as	
13.	Circular knit stocking is knit in	
	form.	
14.	Moireing refers to a finish.	
15.	Batik is a form of dyeing.	
16.	A stocking with the toe joining of a different	
	color is a stocking.	
17.	A hand-block print can be identified by the	
	of design.	
18.	Dotted swiss is an example of weave	
19.	Ply refers to the number in a yarn.	
20.	A permanent mercerized finished cotton damask is	
	sold under the trade name	
21.	The hair fiber does not have	

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22.	The synthetic fiber,,
	cannot be ironed with a hot iron.
23.	Velvet has weave.
24.	When a solution of cellulose is dried in sheet form it becomes
25.	A material which shows holes in the selvage has been
26.	A black silk with 15% weighting may be called
27.	Wool which has not been previously used is
28.	is considered
	the father of the rayon industry.
29.	Kapok is a fiber.

#### Part III - Definitions

Directions: From the column on the left select a suitable definition for the textile term given in the right-hand column and place its corresponding number in the space allotted. There are more definitions from which to choose than words to be defined.

- 1. Dyeing fibers before being made into yarn
- 2. A hammering process applied to fabrics
- 3. Rustle of silk
- 4. The gum on the silk fiber
- 5. When dry dye rubs off cloth
- 6. The French method of making rayon
- 7. A word which gives count of knitting
- 8. Dyeing fabric in the piece

9. The first person who produced rayon in commercial quantity 10. The machine used for making tensile strength tests. 11. A machine for testing fading of materials 12. Wool from slaughtered sheep 13. Material used to give body to silk materials 14. The raised finish which imitates brocade 15. Another word which is used for gauze material 16. The weave of Turkish toweling. 17. The long filaments of silk 18. The short fiber of flax 19. Reworked wool 20. Method used for Celanese 21. Weave used for Turkish towels

- 22. An acetate rayon
- 23. A curtain material which was first used in England
- 24. The method used for making Tubize

Terry
Marquisette
Embossed
Scott Tester
Fadometer
Weighting
Pulled wool
Cellulose
Acetate
Celanese
Terry
Organzine
Tow
Shoddy
Beetling
Chardonnet
Wale
Nitrocellulose
Stock Dyeing
Scroop
An and the second secon
Seracin

No. of Sample Name of Fabric	No. of Sample Name of Fabric
1	20
2	21
3	22
4	23
5	24
6	25
7	26
8	27
9	28
10	29
	30
12	31
13	32
14	33
15	34
16	35
17	36
18	37
19	

Part IV - Fabric Identification

Identify	the	following	weaves:	
(1)			(4)	
(2)			(5)	
(3)				
Identify	the	following	types of	printing:
(1)			(4)	2
(2)			(5)	
(3)			(6)	
Identify	the	following	types of	dyeing:
(1)			(3)_	
(2)			<u></u>	
Identify	the	following	types of	finishes:
(1)			(4)_	
(2)			(5)	
(3)			(6)	

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	Key for Ans	swers to Exa	<u>m for CT 250</u>	
		PART I		
1	16	31	46	61
2.+	17.+	32.+	47.+	62
3	18	33.+	48.+	63
4.+	19	34.+	49.+	64
5.+	20.+	35.+	50	65.+
6.+	21.+	36	51	66
7	22.+	37.+	52.+	67
8	23.+	38.+	53	68
9.+	24.+	39.+	54.+	69
10.+	25.+	40.+	55	70
11	26.+	41	56	71
12.+	27.+	42.+	57	72
13.+	28.+	43	58	73
14.+	29.+	44.+	59.+	74
15	30.+	45.+	60	75

IX

PART II

Leno, gauze marguisette	16.	Tnorain
Warp	17.	Irregularity of
Acetone - glacial acetic		design
Floats	18.	Lappet or swivel
Frieze	19.	Strands
Lead	20.	Basco
Cellulose acetate	21.	Serrated edge
Cuprammonium	. 22.	Celanese
Viscose	23.	Pile
Nitrocellulose	24.	Callophane
Shrinkage with 1/4"	25.	Tentered
tolerance	26.	Pure dye
Rubber	27.	Virgin
Short filaments	28.	Chardonnet
Wild	29.	Vegetable
Shoddy		-
Circular or tubular		
Watered		
Resist		
	Leno, gauze marquisette Warp Acetone - glacial acetic Floats Frieze Lead Cellulose acetate Cuprammonium Viscose Nitrocellulose Shrinkage with 1/4" tolerance Rubber Short filaments Wild Shoddy Circular or tubular Watered Resist	Leno, gauze marquisette 16. Warp 17. Acetone - glacial acetic Floats 18. Frieze 19. Lead 20. Cellulose acetate 21. Cuprammonium 22. Viscose 23. Nitrocellulose 24. Shrinkage with 1/4" 25. tolerance 26. Rubber 27. Short filaments 28. Wild 29. Shoddy Circular or tubular Watered Resist

# PART III

21 - 16	13	17	7
15	12	18	24 - 6
14	20	19	l
10	22	2	3
11	21	9	4

#### PART IV

1.

2.

3.

5.

4.

WEAVES

1. Cretonne 2. Glazed chintz 3. Casement cloth 4. Buckram Dotted Swiss 5. 6. Dimity 7. Felt 8. Crash 9. Seersucker 10. Bleached pongee 11. Poiret twill 12. Wool faille 13. Covert cloth 14. Ladyship organdy 15. Porosa 16. Silk poplin Painted voile 17. 18. Percale 19. Crepe de Chine 20. Handkerchief 21. Challis 22. Chinagrass cloth 23. Swiss dimity 24. Plisse crepe 25. Kasha 26. Mohair velour 27. Spun silk 28. Mohair casement cloth 29. Taffeta 30. Dress linen 31. Broadcloth 32. Moire taffeta 33. Figured chiffon velvet 34. Roshanara crepe 35. Pina cloth

- 36. Cotton flannel
- 37. Damask

#### PRINTING

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Damask	1.	Direct
Swivel	2.	Warp
Pile	3.	Direct
Satin	4.	Duplex
Plain	5.	Direct
	6.	Discharge

#### DYEING

1.	Dyed	in stock
2.	Yarn	dyeing
3.	Yarn	dyeing

#### FINISHES

1.	Glazed	
2.	Calendered	
3.	Embossed	
4.	Emerized	
5.	Moire	
6.	Bleached	