Norah E. Buckalew (Name) for $\operatorname{th} \theta$ S. Clothing \& Textiles
(Degree) (Major)
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Title - Computation of A Textile Achlevement 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 goaeral 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 studonts from small rural high schools and elght students from large eity high schools.

Sixteen atudents did not state whether they had received previous training in toxtiles.

To distinguish botweos the two times the tost was given, the firat time is calied the preliminary test and the second the rinal test.

The teat 18 objective and consists of four parts, with a possible score of 131 points.

The writer scored the test papers as to correot, Incorrect and omittod answers. Tables were formed giving scores and computed results on the preliminary and finel tests for 200 studeats teking tho test; for the 61 students with textile trainimg in high school, and for 123 stucents without textile treining in high echoois for low and high scores on the parts of the preliminary and final tests; and the average scores for each part of the prelininary and final tests.

Scudents from small high schools recelved as ilgh scores in both preliminary and rimal toste as did the studente from lacge olty schools.

The scores of the final teat were such higher for those atudents in the last two quarters than were the scores for the atudents of the firgt two quartera. Thss result might be due to efther of two reasons: these atudents might have been better scholastlcally than the atudenta of the previous classes; or they might heve been tola by fommer afudenta that the test would bo given as a final tost for the textlle course.

The students scored the best scores on the true-false and delinition 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 seom that the test is not sufficientiy adequate as a satisfactory measure. It should contain more scoring points.

# ANALYSIS OF AN OREGON STATE COLLEGE TEXTILE ACHIEVEMENT TEST 

by
NORAH ELIZABETH BUCKALEW

A THESIS<br>submitted to the<br>OREGON STATE COLLEGE

in partial fulfillment of
the requirements for the
degree of
MASTER OF SCIENCE
July 1941

## APPROVED:

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## Redacted for privacy <br> Chairman of State College Graduate Council

## ACKNOWLEDGMENT


#### Abstract

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 . . . . . . . . . . . .
(called definitions) at 20 points
Identification of at 57 points
fabrics, weaves,
prints, dyeing,
and finishes. . .

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
(First column to left student number)

|  | Pretest Part I | Final test Part I | Pretest Part II | Final <br> test <br> Part <br> II | Pretest Part III | Final test Part III | Pretest Part IV | $\begin{aligned} & \text { Final } \\ & \text { test } \\ & \text { Part } \\ & \text { IV } \end{aligned}$ | Pre- <br> test <br> Total <br> Score | Final <br> test <br> Total <br> 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 | 7 | 17 | 20 | 39 | 65 | 141 |
| 8 | 26 | 59 | 9 | 26 | 8 | 18 | 17 | 41 | 60 | 144 |
| 9 | 17 | 68 | 3 | 29 | 5 | 17 | 6 | 38 | 31 | 152 |
| 10 | 23 | 67 | 9 | 26 | 9 | 19 | 19 | 36 | 60 | 148 |
| 11 | 33 | 61 | 6 | 29 | 8 | 19 | 15 | 41 | 62 | 150 |
| 12 | 47 | 70 | 14 | 28 | 9 | 19 | 13 | 44 | 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 |
| 23 | 43 | 66 | 4 | 26 | 11 | 18 | 15 | 43 | 73 | 153 |
| 24 | 41 | 60 | 6 | 26 | 4 | 18 | 10 | 35 | 61 | 139 |
| 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 |

> Table I (Continued)
> Scores on Preliminary and Final Tests
> for 200 Students
> (First column to left student number)

|  | Pretest Part I | Final <br> test <br> Part <br> I | Pretest Part II | Final test Part II | Pretest Part III | Final <br> test <br> Part <br> III | Pretest Part IV | Final <br> test <br> Part <br> IV | Pretest Total Score | Final <br> test <br> Total <br> Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 38 | 47 | 61 | 6 | 23 | 6 | 17 | 14 | 37 | 73 | 138 |
| 39 | 27 | 61 | 11 | 25 | 6 | 16 | 17 | 33 | 61 | 135 |
| 40 | 21 | 69 | 1 | 29 | 5 | 19 | 14 | 41 | 41 | 158 |
| 41 | 19 | 52 | 7 | 25 | 4 | 16 | 15 | 32 | 45 | 125 |
| 42 | 28 | 62 | 11 | 22 | 5 | 16 | 21 | 39 | 65 | 139 |
| 43 | 28 | 72 | 7 | 29 | 5 | 20 | 12 | 33 | 52 | 154 |
| 44 | 18 | 71 | 11 | 28 | 7 | 20 | 13 | 39 | 49 | 158 |
| 45 | 42 | 61 | 10 | 26 | 5 | 18 | 13 | 39 | 70 | 144 |
| 46 | 24 | 56 | 3 | 13 | 4 | 16 | 11 | 25 | 42 | 110 |
| 47 | 38 | 73 | 7 | 26 | 9 | 17 | 17 | 34 | 71 | 150 |
| 48 | 34 | 63 | 3 | 28 | 4 | 20 | 8 | 27 | 49 | 138 |
| 49 | 34 | 74 | 10 | 26 | 9 | 18 | 16 | 40 | 69 | 158 |
| 50 | 38 | 58 | 9 | 20 | 7 | 17 | 16 | 31 | 70 | 126 |
| 51 | 43 | 74 | 8 | 28 | 9 | 20 | 18 | 36 | 78 | 158 |
| 52 | 15 | 63 | 4 | 24 | 5 | 16 | 15 | 30 | 39 | 133 |
| 53 | 37 | 67 | 12 | 28 | 14 | 20 | 21 | 41 | 84 | 156 |
| 54 | 46 | 55 | 6 | 18 | 7 | 17 | 13 | 24 | 72 | 114 |
| 55 | 32 | 64 | 2 | 22 | 3 | 16 | 12 | 29 | 49 | 131 |
| 56 | 40 | 74 | 15 | 29 | 11 | 20 | 25 | 39 | 91 | 162 |
| 57 | 15 | 68 | 7 | 26 | 5 | 16 | 11 | 40 | 38 | 150 |
| 58 | 19 | 66 | 6 | 27 | 0 | 20 | 10 | 37 | 35 | 150 |
| 59 | 6 | 61 | 6 | 26 | 0 | 18 | 10 | 38 | 22 | 143 |
| 60 | 21 | 66 | 7 | 24 | 6 | 20 | 11 | 36 | 45 | 146 |
| 61 | 13 | 67 | 1 | 26 | 3 | 18 | 5 | 50 | 33 | 161 |
| 62 | 24 | 71 | 7 | 26 | 5 | 19 | 15 | 36 | 51 | 152 |
| 63 | 30 | 70 | 7 | 21 | 2 | 20 | 16 | 34 | 55 | 145 |
| 64 | 36 | 74 | 15 | 26 | 18 | 20 | 22 | 40 | 91 | 160 |
| 65 | 14 | 66 | 2 | 14 | 2 | 18 | 6 | 28 | 24 | 126 |
| 66 | 37 | 70 | 9 | 24 | 5 | 18 | 14 | 43 | 65 | 155 |
| 67 | 15 | 71 | 7 | 27 | 5 | 18 | 16. | 37 | 43 | 153 |
| 68 | 15 | 65 | 0 | 22 | 0 | 16 | 5 | 45 | 20 | 148 |
| 69 | 24 | 74 | 7 | 29 | 3 | 20 | 13 | 50 | 47 | 173 |
| 70 | 29 | 63 | 8 | 20 | 3 | 15 | 18 | 34 | 58 | 132 |
| 71 | 27 | 63 | 7 | 18 | 9 | 19 | 8 | 28 | 51 | 128 |
| 72 | 10 | 71 | 4 | 23 | 9 | 19 | 10 | 40 | 33 | 153 |
| 73 | 43 | 65 | 9 | 28 | 12 | 20 | 21 | 41 | 85 | 154 |

Table I (Continued)
Scores on Preliminary and Final Tests
for 200 Students
(First column to left student number)

|  | Pretest Part I | Final <br> test <br> Part <br> I | Pretest Part II | Final <br> test <br> Part <br> II | Pretest Part III | Final test Part III | Pretest Part IV | Final test Part IV | Pretest Total Score | Final <br> test <br> Total <br> Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 74 | 20 | 69 | 7 | 28 | 0 | 19 | 14 | 48 | 41 | 164 |
| 75 | 8 | 69 | 2 | 29 | 0 | 19 | 10 | 49 | 20 | 166 |
| 76 | 23 | 66 | 0 | 28 | 11 | 20 | 11 | 35 | 45 | 149 |
| 77 | 18 | 72 | 6 | 29 | 9 | 20 | 15 | 40 | 48 | 161 |
| 78 | 8 | 59 | 1 | 15 | 1 | 14 | 8 | 22 | 18 | 110 |
| 79 | 13 | 66 | 1 | 27 | 0 | 20 | 4 | 35 | 18 | 148 |
| 80 | 24 | 67 | 4 | 26 | 5 | 17 | 15 | 39 | 48 | 149 |
| 81 | 30 | 61 | 7 | 29 | 5 | 19 | 20 | 36 | 62 | 145 |
| 82 | 24 | 64 | 8 | 28 | 8 | 19 | 15 | 37 | 55 | 148 |
| 83 | 8 | 52 | 6 | 25 | 5 | 15 | 12 | 38 | 31 | 130 |
| 84 | 23 | 62 | 0 | 29 | 6 | 18 | 6 | 42 | 35 | 151 |
| 85 | 11 | 50 | 1 | 17 | 5 | 11 | 88 | 22 | 25 | 100 |
| 86 | 7 | 62 | 2 | 27 | 5 | 17 | 16 | 39 | 30 | 145 |
| 87 | 41 | 62 | 8 | 18 | 5 | 20 | 12 | 31 | 66 | 131 |
| 88 | 36 | 63 | 0 | 28 | 0 | 20 | 16 | 42 | 52 | 153 |
| 89 | 20 | 64 | 11 | 26 | 7 | 16 | 14 | 37 | 52 | 143 |
| 90 | 39 | 63 | 7 | 26 | 8 | 17 | 16 | 48 | 70 | 154 |
| 91 | 10 | 58 | 0 | 23 | 4 | 17 | 10 | 26 | 24 | 124 |
| 92 | 42 | 59 | 0 | 26 | 9 | 17 | 8 | 38 | 59 | 140 |
| 93 | 54 | 70 | 15 | 29 | 9 | 20 | 32 | 45 | 110 | 164 |
| 94 | 36 | 73 | 5 | 28 | 9 | 20 | 13 | 35 | 63 | 156 |
| 95 | 26 | 55 | 8 | 26 | 5 | 15 | 14 | 41 | 53 | 137 |
| 96 | 20 | 72 | 5 | 29 | 9 | 19 | 17 | 47 | 51 | 167 |
| 97 | 24 | 71 | 4 | 28 | 6 | 20 | 7 | 40 | 41 | 159 |
| 98 | 35 | 64 | 1 | 27 | 0 | 20 | 17 | 43 | 53 | 154 |
| 99 | 18 | 48 | 3 | 24 | 4 | 14 | 8 | 37 | 33 | 123 |
| 100 | 42 | 73 | 8 | 29 | 8 | 19 | 11 | 37 | 69 | 158 |
| 01 | 15 | 62 | 10 | 23 | 8 | 16 | 11 | 32 | 44 | 133 |
| 02 | 29 | 65 | 5 | 26 | 7 | 17 | 8 | 28 | 49 | 136 |
| 103 | 47 | 64 | 15 | 30 | 13 | 15 | 19 | 46 | 94 | 155 |
| 104 | 14 | 59 | 5 | 27 | 10 | 17 | 8 | 47 | 37 | 150 |
| 105 | 37 | 60 | 3 | 20 | 0 | 18 | 19 | 42 | 59 | 140 |
| 106 | 15 | 61 | 5 | 17 | 4 | 15 | 10 | 37 | 34 | 130 |
| 107 | 48 | 63 | 10 | 28 | 7 | 18 | 17 | 39 | 82 | 148 |
| 108 | 45 | 66 | 8 | 30 | 4 | 20 | 23 | 43 | 80 | 159 |
| 109 | 38 | 73 | 7 | 29 | 0 | 18 | 14 | 31 | 59 | 151 |

## Table I (Continued)

Scores on Preliminary and Final Tests
for 200 students
(First column to left student number)

|  | $\begin{gathered} \text { Pre- } \\ \text { test } \\ \text { Part } \\ \text { I } \\ \hline \end{gathered}$ | Final <br> test <br> Part <br> I | Pretest Part $\qquad$ | Final test Part II | Pretest Part III | Final test Part III | Pre- <br> test <br> Part <br> IV | Final <br> test <br> Part <br> IV | $\begin{aligned} & \text { Pre- } \\ & \text { test } \\ & \text { Total } \\ & \text { Score } \end{aligned}$ | Final <br> test <br> Total <br> Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 110 | 23 | 70 | 9 | 27 | 7 | 19 | 11 | 38 | 50 | 154 |
| 111 | 29 | 63 | 8 | 24 | 3 | 16 | 16 | 36 | 56 | 139 |
| 112 | 23 | 56 | 4 | 25 | 6 | 14 | 11 | 28 | 44 | 123 |
| 113 | 28 | 70 | 7 | 26 | 5 | 19 | 14 | 45 | 54 | 160 |
| 114 | 14 | 62 | 5 | 24 | 1 | 15 | 12 | 29 | 32 | 130 |
| 115 | 40 | 70 | 13 | 27 | 8 | 17 | 22 | 38 | 83 | 152 |
| 116 | 21 | 57 | 5 | 26 | 9 | 18 | 13 | 31 | 48 | 132 |
| 117 | 28 | 64 | 11 | 26 | 4 | 16 | 20 | 35 | 63 | 141 |
| 118 | 12 | 64 | 1 | 27 | 0 | 20 | 4 | 20 | 17 | 131 |
| 119 | 2 | 57 | 5 | 23 | 4 | 17 | 13 | 31 | 24 | 128 |
| 120 | 18 | 61 | 4 | 27 | 5 | 18 | 15 | 35 | 42 | 141 |
| 121 | 47 | 75 | 7 | 30 | 3 | 20 | 18 | 42 | 75 | 167 |
| 122 | 39 | 66 | 12 | 27 | 9 | 19 | 17 | 32 | 77 | 144 |
| 123 | 29 | 67 | 6 | 28 | 2 | 17 | 15 | 46 | 52 | 158 |
| 124 | 49 | 72 | 8 | 28 | 10 | 20 | 21 | 29 | 88 | 149 |
| 125 | 10 | 72 | 4 | 30 | 6 | 20 | 11 | 37 | 31 | 159 |
| 126 | 16 | 71 | 12 | 27 | 9 | 18 | 14 | 37 | 51 | 153 |
| 127 | 17 | 65 | 10 | 24 | 14 | 18 | 16 | 34 | 57 | 141 |
| 128 | 28 | 62 | 5 | 27 | 5 | 18 | 19 | 34 | 57 | 141 |
| 129 | 15 | 70 | 1 | 26 | 8 | 18 | 10 | 30 | 34 | 144 |
| 130 | 31 | 67 | 8 | 26 | 4 | 19 | 18 | 47 | 61 | 159 |
| 131 | 41 | 68 | 3 | 25 | 2 | 15 | 17 | 27 | 63 | 135 |
| 132 | 17 | 64 | 4 | 24 | 10 | 17 | 12 | 36 | 43 | 141 |
| 133 | 15 | 66 | 2 | 27 | 5 | 20 | 6 | 36 | 28 | 149 |
| 134 | 42 | 69 | 9 | 27 | 3 | 20 | 18 | 49 | 72 | 165 |
| 135 | 28 | 66 | 11 | 27 | 3 | 15 | 19 | 38 | 61 | 146 |
| 136 | 42 | 66 | 3 | 28 | 0 | 20 | 14 | 43 | 59 | 157 |
| 137 | 5 | 63 | 0 | 23 | 0 | 15 | 7 | 32 | 12 | 133 |
| 138 | 25 | 64 | 7 | 29 | 13 | 17 | 17 | 35 | 62 | 145 |
| 139 | 22 | 66 | 5 | 23 | 0 | 17 | 8 | 37 | 35 | 143 |
| 140 | 26 | 69 | 12 | 26 | 7 | 18 | 13 | 34 | 58 | 147 |
| 141 | 11 | 63 | 3 | 28 | 1 | 18 | 8 | 42 | 23 | 151 |
| 142 | 24 | 75 | 12 | 27 | 0 | 20 | 45 | 42 | 81 | 164 |
| 143 | 26 | 65 | 4 | 21 | 3 | 17 | 10 | 22 | 43 | 125 |
| 144 | 16 | 64 | 11 | 22 | 12 | 20 | 18 | 43 | 57 | 149 |
| 145 | 24 | 74 | 7 | 26 | 1 | 20 | 15 | 44 | 47 | 164 |

Table I (Continued)
Scores on Preliminary and Final Tests
for 200 Students
(First column to left student score)

|  | Pre- <br> test <br> Part <br> I | Final <br> test <br> Part <br> I | Pretest Part II | Final <br> test <br> Part <br> II | Pretest Part III | Final <br> test <br> Part <br> III | Pretest Part IV | Final <br> test <br> Part <br> IV | Pre- <br> test <br> Total <br> Score | Final <br> test <br> Total <br> Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 146 | 3 | 68 | 2 | 19 | 1 | 15 | 10 | 35 | 16 | 137 |
| 147 | 17 | 74 | 6 | 26 | 7 | 20 | 8 | 48 | 38 | 168 |
| 148 | 24 | 74 | 8 | 29 | 3 | 20 | 12 | 35 | 47 | 158 |
| 149 | 16 | 63 | 2 | 16 | 2 | 17 | 5 | 28 | 25 | 124 |
| 150 | 19 | 68 | 3 | 24 | 1 | 16 | 6 | 26 | 29 | 134 |
| 151 | 36 | 73 | 17 | 24 | 8 | 20 | 24 | 46 | 85 | 163 |
| 152 | 18 | 63 | 2 | 24 | 4 | 18 | 11 | 51 | 35 | 156 |
| 153 | 19 | 64 | 4 | 24 | 3 | 19 | 15 | 40 | 41 | 147 |
| 154 | 12 | 64 | 7 | 29 | 0 | 19 | 11 | 48 | 30 | 160 |
| 155 | 9 | 73 | 3 | 27 | 4 | 19 | 14 | 52 | 30 | 171 |
| 156 | 26 | 72 | 6 | 23 | 6 | 17 | 11 | 35 | 49 | 147 |
| 157 | 9 | 70 | 3 | 25 | 0 | 19 | 7 | 44 | 19 | 158 |
| 158 | 22 | 71 | 6 | 28 | 15 | 19 | 13 | 49 | 56 | 167 |
| 159 | 15 | 66 | 9 | 27 | 8 | 18 | 19 | 39 | 51 | 150 |
| 160 | 18 | 65 | 9 | 22 | 9 | 17 | 15 | 32 | 51 | 136 |
| 161 | 49 | 63 | 4 | 23 | 11 | 20 | 10 | 22 | 74 | 128 |
| 162 | 29 | 66 | 12 | 23 | 6 | 18 | 16 | 36 | 63 | 143 |
| 163 | 16 | 65 | 5 | 26 | 7 | 19 | 13 | 40 | 41 | 150 |
| 164 | 45 | 69 | 14 | 30 | 4 | 20 | 18 | 44 | 81 | 163 |
| 165 | 40 | 66 | 13 | 27 | 8 | 17 | 18 | 42 | 79 | 152 |
| 166 | 17 | 66 | 7 | 25 | 4 | 20 | 5 | 40 | 33 | 151 |
| 167 | 24 | 53 | 3 | 19 | 6 | 19 | 9 | 19 | 42 | 110 |
| 168 | 45 | 65 | 3 | 27 | 4 | 18 | 10 | 42 | 62 | 152 |
| 169 | 21 | 59 | 3 | 26 | 5 | 16 | 11 | 33 | 40 | 134 |
| 170 | 37 | 70 | 7 | 30 | 13 | 20 | 17 | 46 | 74 | 166 |
| 171 | 44 | 63 | 8 | 26 | 2 | 19 | 12 | 44 | 66 | 152 |
| 172 | 29 | 66 | 4 | 25 | 9 | 20 | 14 | 46 | 56 | 157 |
| 173 | 53 | 64 | 7 | 27 | 8 | 19 | 16 | 41 | 84 | 151 |
| 174 | 45 | 71 | 9 | 26 | 4 | 20 | 24 | 47 | 82 | 164 |
| 175 | 28 | 71 | 5 | 28 | 6 | 18 | 13 | 44 | 52 | 161 |
| 176 | 25 | 70 | 1 | 28 | 3 | 19 | 12 | 38 | 41 | 155 |
| 177 | 26 | 60 | 6 | 26 | 5 | 17 | 12 | 34 | 49 | 137 |
| 178 | 19 | 66 | 3 | 28 | 3 | 18 | 14 | 42 | 39 | 154 |
| 179 | 30 | 65 | 16 | 30 | 8 | 19 | 33 | 42 | 87 | 156 |
| 180 | 20 | 64 | 8 | 30 | 3 | 19 | 15 | 48 | 46 | 161 |
| 181 | 43 | 69 | 14 | 29 | 7 | 18 | 22 | 44 | 86 | 160 |
| 182 | 23 | 66 | 11 | 29 | 7 | 19 | 18 | 44 | 59 | 158 |

Table I (Continued)
Scores on Preliminary and Final Tests
for 200 Students
(First column to left student number)

|  | Pretest Part I | Final test Part I | $\begin{aligned} & \text { Pre- } \\ & \text { test } \\ & \text { Part } \\ & \text { II } \end{aligned}$ | $\begin{aligned} & \text { Final } \\ & \text { test } \\ & \text { Part } \\ & \text { II } \end{aligned}$ | $\begin{aligned} & \text { Pre- } \\ & \text { test } \\ & \text { Part } \\ & \text { IIII } \\ & \hline \end{aligned}$ | Final test Part III | $\begin{aligned} & \text { Pre- } \\ & \text { test } \\ & \text { Part } \\ & \text { IV } \end{aligned}$ | $\begin{aligned} & \text { Final } \\ & \text { test } \\ & \text { Part } \\ & \text { IV } \end{aligned}$ | $\begin{aligned} & \text { Pre- } \\ & \text { test } \\ & \text { Total } \\ & \text { Score } \end{aligned}$ | Final test Total Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | , | 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 | , | 29 | 7 | 18 | 5 | 29 | 34 | 136 |
| 198 | 18 | 68 | 6 | 23 | 3 | 18 | 6 | 33 | 33 | 142 |
| 199 | 22 | 63 | 3 | 19 | - | 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 | 24 |
| 85 | 73 | 61 | 56 | 49 | 43 | 35 | 24 |
| 85 | 72 | 61 | 55 | 49 | 42 | 35 | 24 |
| 84 | 72 | 61 | 55 | 49 | 42 | 34 | 23 |
| 84 | 71 | 61 | 55 | 49 | 42 | 34 | 23 |
| 83 | 71 | 61 | 55 | 49 | 42 | 34 | 22 |
| 83 | 70 | 60 | 54 | 49 | 41 | 33 | 22 |
| 83 | 70 | 60 | 54 | 48 | 41 | 33 | 20 |
| 82 | 70 | 60 | 53 | 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 | 124 |
| 164 | 158 | 154 | 151 | 146 | 140 | 133 | 124 |
| 164 | 158 | 154 | 150 | 145 | 140 | 133 | 123 |
| 164 | 158 | 154 | 150 | 145 | 140 | 133 | 123 |
| 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 <br> Students |
| Range of <br> Grades |
| $12-110$ |

Results Obtained from Table I
(Final test given after taking textile course in college)

| Number of <br> Students | Range of <br> Grades | Median | Mean | Mode | Standard <br> Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 200 | $100-173$ | 148 | 147 | 158 | $\pm 13.972$ |

$\frac{\text { Description }}{\text { Preliminary }} \frac{\text { of }}{\text { Test }}$ and $\frac{\text { Obtained }}{\text { Final } T \text { From Results }}$ of

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.

## Iist of Words Misspelled in

## Preliminary and Final Tests

|  | Preliminary test <br> no <br> misspelled | Final test <br> no <br> misspelled |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## TABLE III

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

|  | Pretest Part I | Final <br> test <br> Part <br> I | Pretest Part II | Final <br> test <br> Part <br> II | Pretest Part III | Final <br> test <br> Part <br> III | Pretest Part IV | Final <br> test <br> Part <br> IV | Pre- <br> test <br> Total <br> Score | Final test Total Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 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 | 11 | 18 | 15 | 43 | 73 | 153 |
| 13 | 28 | 62 | 5 | 27 | 5 | 18 | 19 | 34 | 57 | 141 |
| 14 | 49 | 70 | 8 | 28 | 12 | 20 | 14 | 35 | 83 | 153 |
| 15 | 40 | 70 | 14 | 27 | 11 | 19 | 9 | 41 | 74 | 157 |
| 16 | 28 | 69 | 7 | 24 | 4 | 15 | 15 | 33 | 54 | 141 |
| 17 | 17 | 66 | 7 | 25 | 4 | 20 | 5 | 40 | 33 | 151 |
| 18 | 28 | 71 | 5 | 28 | 6 | 18 | 13 | 44 | 52 | 161 |
| 19 | 29 | 66 | 4 | 25 | 9 | 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 |

## Table III (Continued) <br> Scores on Preliminary and Final Tests for

61 Students, with Textile Training in High School
(First column to left student number)

|  | Pre- <br> test <br> Part <br> I | Final <br> Part <br> I | Pre- <br> test <br> Part <br> II | Final <br> Part <br> II | Pre- <br> test <br> Part <br> III | Final <br> Part <br> III | Pre- <br> test <br> Part <br> IV | Final <br> Part <br> IV | Pre- <br> test <br> Total <br> Score | Final <br> test <br> Total |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 37 | 21 | 69 | 1 | 29 | 5 | 19 | 14 | 41 | 41 | 157 |
| 38 | 28 | 62 | 11 | 22 | 5 | 16 | 21 | 39 | 65 | 139 |
| 39 | 18 | 71 | 11 | 28 | 7 | 20 | 13 | 39 | 49 | 158 |
| 40 | 24 | 56 | 3 | 13 | 4 | 16 | 11 | 25 | 42 | 110 |
| 41 | 15 | 63 | 4 | 24 | 5 | 16 | 15 | 30 | 39 | 133 |
| 42 | 46 | 55 | 6 | 18 | 7 | 17 | 13 | 24 | 72 | 114 |
| 43 | 32 | 64 | 2 | 22 | 3 | 16 | 12 | 29 | 49 | 131 |
| 44 | 6 | 61 | 6 | 26 | 0 | 18 | 10 | 38 | 22 | 143 |
| 45 | 36 | 74 | 15 | 26 | 18 | 20 | 22 | 40 | 91 | 160 |
| 46 | 14 | 66 | 2 | 14 | 2 | 18 | 6 | 28 | 24 | 126 |
| 47 | 10 | 71 | 4 | 23 | 9 | 19 | 10 | 40 | 33 | 153 |
| 48 | 23 | 66 | 0 | 28 | 11 | 20 | 11 | 35 | 45 | 149 |
| 49 | 8 | 59 | 1 | 15 | 1 | 14 | 8 | 22 | 18 | 110 |
| 50 | 29 | 65 | 5 | 26 | 7 | 17 | 8 | 28 | 49 | 136 |
| 51 | 14 | 62 | 5 | 24 | 1 | 15 | 12 | 29 | 32 | 130 |
| 52 | 40 | 70 | 13 | 27 | 8 | 17 | 22 | 38 | 83 | 152 |
| 53 | 2 | 57 | 5 | 23 | 4 | 17 | 13 | 31 | 24 | 128 |
| 54 | 18 | 61 | 4 | 27 | 5 | 18 | 15 | 35 | 42 | 141 |
| 55 | 29 | 67 | 6 | 28 | 2 | 17 | 15 | 46 | 52 | 158 |
| 56 | 16 | 71 | 12 | 27 | 9 | 18 | 14 | 37 | 51 | 153 |
| 57 | 19 | 60 | 3 | 29 | 7 | 18 | 5 | 29 | 34 | 136 |
| 58 | 18 | 68 | 6 | 23 | 3 | 18 | 6 | 33 | 33 | 142 |
| 59 | 19 | 68 | 3 | 24 | 1 | 16 | 6 | 26 | 29 | 134 |
| 60 | 18 | 63 | 4 | 24 | 2 | 18 | 11 | 51 | 35 | 156 |
| 61 | 16 | 65 | 5 | 26 | 7 | 19 | 13 | 40 | 41 | 150 |

## 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 |  |  |  |

Results Obtained from Table III
(Preliminary test given to students with previous high school work in textiles)

| Number of <br> Students | Range of <br> Grades | Median | Mean | Mode | Standard <br> Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 60 | $18-98$ | 51 | 52 | 51 | $\pm 22.88$ |

## Results Obtained from Table III

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

| Number of <br> Students | Range of <br> Grades | Median | Mean | Mode | Standard <br> Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 60 | $110-167$ | 144 | 143 | 153 | $\pm 12.496$ |

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

|  | Pretest Part I | Final <br> test <br> Part <br> I | Pretest Part II | Final test Part II | Pretest Part III | Final test Part III | Pretest Part IV | Final test Part IV | Pre- <br> test <br> Total <br> Score | Final test Total Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 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 |
| 16 | 6 | 63 | 2 | 23 | 3 | 19 | 9 | 35 | 20 | 140 |
| 17 | 16 | 62 | 4 | 29 | 3 | 16 | 12 | 33 | 35 | 140 |
| 18 | 22 | 70 | 11 | 29 | 5 | 17 | 13 | 38 | 51 | 154 |
| 19 | 28 | 56 | 6 | 19 | 0 | 16 | 14 | 27 | 48 | 118 |
| 20 | 8 | 52 | 4 | 25 | 4 | 11 | 14 | 25 | 30 | 113 |
| 21 | 32 | 62 | 9 | 29 | 7 | 18 | 18 | 36 | 66 | 145 |
| 22 | 7 | 62 | 2 | 27 | 5 | 17 | 16 | 39 | 30 | 145 |
| 23 | 41 | 62 | 8 | 18 | 5 | 20 | 12 | 31 | 66 | 131 |
| 24 | 36 | 63 | 0 | 28 | 0 | 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 |

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

|  | Pretest Part I | Final <br> test <br> Part <br> I | Pretest Part II | Final test Part II | Pretest Part III | Final test Part III | Pre- <br> test <br> Part IV | Final <br> test <br> Part IV | Pretest Total Score | Final test Total Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 36 | 43 | 74 | 8 | 28 | 9 | 20 | 18 | 36 | 78 | 158 |
| 37 | 37 | 67 | 12 | 28 | 14 | 20 | 21 | 41 | 84 | 156 |
| 38 | 40 | 74 | 15 | 29 | 11 | 20 | 25 | 39 | 91 | 162 |
| 39 | 15 | 68 | 7 | 26 | 5 | 16 | 11 | 40 | 38 | 150 |
| 40 | 19 | 66 | 6 | 27 | 0 | 20 | 10 | 37 | 35 | 150 |
| 41 | 12 | 64 | 1 | 27 | 0 | 20 | 4 | 20 | 17 | 131 |
| 42 | 47 | 75 | 7 | 30 | 3 | 20 | 18 | 42 | 75 | 167 |
| 43 | 39 | 66 | 12 | 27 | 9 | 19 | 17 | 32 | 77 | 144 |
| 44 | 49 | 72 | 8 | 28 | 10 | 20 | 21 | 29 | 88 | 149 |
| 45 | 17 | 65 | 10 | 24 | 14 | 18 | 16 | 34 | 57 | 141 |
| 46 | 10 | 72 | 4 | 30 | 6 | 20 | 11. | 37 | 31 | 159 |
| 47 | 54 | 70 | 15 | 29 | 9 | 20 | 32 | 45 | 110 | 164 |
| 48 | 35 | 64 | 1 | 27 | 0 | 20 | 17 | 43 | 53 | 154 |
| 49 | 18 | 48 | 3 | 24 | 4 | 14 | 8 | 37 | 33 | 123 |
| 50 | 42 | 73 | 8 | 29 | 8 | 19 | 11 | 37 | 69 | 158 |
| 51 | 37 | 60 | 3 | 20 | 0 | 18 | 19 | 42 | 59 | 140 |
| 52 | 15 | 61 | 5 | 17 | 4 | 15 | 10 | 27 | 34 | 120 |
| 53 | 48 | 63 | 10 | 28 | 7 | 18 | 17 | 39 | 82 | 148 |
| 54 | 45 | 66 | 8 | 30 | 4 | 20 | 23 | 43 | 80 | 159 |
| 55 | 38 | 73 | 7 | 29 | 0 | 18 | 14 | 31 | 59 | 151 |
| 56 | 23 | 70 | 9 | 27 | 7 | 19 | 11 | 38 | 50 | 154 |
| 57 | 24 | 67 | 4 | 26 | 5 | 17 | 15 | 39 | 48 | 149 |
| 58 | 30 | 61 | 7 | 29 | 5 | 19 | 20 | 36 | 62 | 145 |
| 59 | 4 | 62 | 9 | 29 | 6 | 18 | 16 | 42 | 35 | 151 |
| 60 | 11 | 50 | 1 | 17 | 5 | 11 | 8 | 22 | 25 | 100 |
| 61 | 24 | 74 | 8 | 29 | 3 | 20 | 12 | 35 | 47 | 158 |
| 62 | 16 | 63 | 2 | 16 | 2 | 17 | 5 | 28 | 25 | 124 |
| 63 | 36 | 73 | 17 | 24 | 8 | 20 | 24 | 45 | 85 | 162 |
| 64 | 9 | 73 | 3 | 27 | 4 | 19 | 14 | 52 | 30 | 171 |
| 65 | 26 | 72 | 6 | 23 | 6 | 17 | 11 | 35 | 49 | 147 |
| 66 | 9 | 70 | 3 | 25 | 0 | 19 | 7 | 44 | 19 | 158 |
| 67 | 22 | 71 | 6 | 28 | 15 | 19 | 13 | 49 | 56 | 167 |
| 68 | 13 | 60 | 3 | 22 | 0 | 17 | 8 | 29 | 24 | 128 |
| 69 | 22 | 63 | 3 | 19 | 0 | 18 | 12 | 26 | 37 | 126 |
| 70 | 15 | 66 | 2 | 27 | 5 | 20 | 6 | 36 | 28 | 149 |
| 71 | 42 | 69 | 9 | 27 | 3 | 20 | 18 | 49 | 72 | 165 |

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

|  | Pretest Part I | Final <br> test <br> Part <br> I | Pretest Part II | Final <br> test <br> Part <br> II | Pretest Part III | Final <br> test <br> Part <br> III | Pretest Part IV | Final <br> test <br> Part <br> IV | Pretest Total Score | Final test Total Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 72 | 22 | 66 | 5 | 23 | 0 | 17 | 8 | 37 | 35 | 143 |
| 73 | 26 | 69 | 12 | 26 | 7 | 18 | 13 | 34 | 58 | 147 |
| 74 | 11 | 63 | 3 | 28 | 1 | 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 |
| 79 | 28 | 70 | 7 | 26 | 5 | 19 | 14 | 45 | 54 | 160 |
| 80 | 5 | 64 | 0 | 29 | 0 | 17 | 7 | 35 | 12 | 145 |
| 81 | 10 | 61 | 0 | 22 | 0 | 19 | 10 | 32 | 20 | 134 |
| 82 | 42 | 66 | 3 | 28 | 0 | 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 | 53 | 3 | 19 | 6 | 19 | 9 | 19 | 42 | 110 |
| 88 | 21 | 59 | 3 | 26 | 5 | 16 | 11 | 33 | 40 | 134 |
| 89 | 44 | 63 | 8 | 26 | 2 | 19 | 12 | 44 | 66 | 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 | 73 | 7 | 26 | 9 | 17 | 17 | 34 | 71 | 150 |
| 95 | 35 | 70 | 7 | 24 | 5 | 18 | 16 | 43 | 63 | 165 |
| 96 | 26 | 65 | 4 | 21 | 3 | 17 | 10 | 22 | 43 | 125 |
| 97 | 37 | 70 | 7 | 30 | 13 | 20 | 17 | 46 | 74 | 166 |
| 98 | 45 | 71 | $\theta$ | 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 | 58 | 0 | 23 | 4 | 17 | 10 | 26 | 24 | 124 |
| 103 | 8 | 52 | 6 | 25 | 5 | 15 | 12 | 38 | 31 | 130 |
| 104 | 24 | 64 | 8 | 28 | 8 | 19 | 15 | 37 | 55 | 148 |
| 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 |

## Table V (Continued)

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

|  | Pretest Part I | Final <br> test <br> Part <br> I | Pretest Part II | Final <br> test <br> Part <br> II | $\begin{gathered} \text { Pre- } \\ \text { test } \\ \text { PPart } \\ \text { III } \end{gathered}$ | Final <br> test <br> Part <br> III | Pretest Part IV | Final test Part IV | Pre- <br> test <br> Total <br> Score | Final <br> test <br> Total <br> Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 108 | 26 | 59 | 9 | 26 | 8 | 18 | 17 | 41 | 60 | 144 |
| 109 | 42 | 67 | 10 | 29 | 13 | 20 | 24 | 43 | 89 | 159 |
| 110 | 23 | 66 | 11 | 29 | 7 | 19 | 18 | 44 | 59 | 158 |
| 111 | 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 | 49 | 137 |
| 118 | 23 | 67 | 7 | 29 | 8 | 20 | 6 | 45 | 44 | 161 |
| 119 | 48 | 71 | 9 | 29 | 8 | 20 | 10 | 29 | 75 | 149 |
| 120 | 26 | 62 | 5 | 29 | 7 | 17 | 9 | 36 | 47 | 144 |
| 121 | 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 <br> Preliminary Test in Table V

Total scores 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 | 42 | 25 |
| 82 | 63 | 55 | 31 | 24 |
| 81 | 62 | 54 | 41 | 24 |
| 80 | 62 | 53 | 40 | 23 |
| 79 | 61 | 52 | 40 | 22 |
| 78 | 61 | 52 | 39 | 20 |
| 78 | 61 | 52 | 38 | 20 |
| 77 | 61 | 52 | 37 | 20 |
| 75 | 61 | 51 | 37 | 20 |
| 75 | 60 | 50 | 35 | 19 |
| 74 | 60 | 49 | 35 | 18 |
| 74 | 60 | 49 | 35 | 17 |
| 72 | 59 | 49 | 34 | 16 |
| 71 | 59 | 48 | 34 | 12 |
| 71 | 59 | 48 |  |  |

## Rank Order File of Total Scores for <br> 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 | 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 <br> Students | Range of <br> Grades | Median | Mean | Mode | Standard <br> Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 123 | $12-110$ | 54 | 54 | 63 | $\pm 20.284$ |

```
Results Obtained from Table V
(Final test for students without previous high school textiles)
```

| Number of <br> Students | Range of <br> Grades | Median | Mean | Mode | Standard <br> Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 123 | $100-173$ | 149 | 145 | 158 | $\pm 14.910$ |

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 $s$ tudents 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-test Part I | Final test Part I | Pre-test <br> Part II | Final test Part II |  | Pre-test <br> Part III |  | Final test Part III |  | Pre-test Part IV |  | Final test Part IV |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Scores | Score | Score |  | ores |  | ore |  | ore |  | ore |  | ore |
| Low High | Low High | Low High | Low | High | Low | High | Low | High | Low | High | Low | High |
| 259 | 4875 | $1 \begin{array}{ll}17\end{array}$ | 15 | 30 | 1 | 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-test Part I | Final test Part I | Pre-test <br> Part II |  | $\begin{gathered} \text { Final test } \\ \text { Part II } \\ \hline \end{gathered}$ |  | Pre-test <br> Part III |  | Final test Part III |  | Pre-test <br> Part IV |  | Final test Part IV |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Score | Score |  | ore |  |  |  |  |  |  |  |  |  | re |
| Low High | Low High | Low | High | Low | High | Low | High | Low | High | Low | High | Low | High |
| 259 | $55 \quad 74$ | 1 | 16 | 13 | 30 | 1 | 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-test | Final test | Pre-test | Final test | Pre-test | Final test | Pre-test Final test |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Part I | Part I | Part II | Part II | Part III | Part III | Part IV | Part IV |  |  |  |  |  |  |
| Score | Score | Score | Score | Score | Score | Score | Score |  |  |  |  |  |  |
| Low High | Low | High | Low | High | Low | High | Low | High | Low | High | Low | High | Low |
| High |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 | 47 | 48 | 75 | 1 | 17 | 15 | 30 | 1 | 15 | 11 | 20 | 4 | 45 |

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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 <br> 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

| 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 | 65 | 7 | 26 | 5 | 18 | 14 | 37 |

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 $\pm 13.97$; 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

1. 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.
6. 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

1. The test
2. Key to test

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

Name $\qquad$ Part I
II
III
IV
Total

## Part I

Place + in front of true statements and - in front of false.
( ) 1. A blanket with $5 \%$ wool may be labeled a wool blanket.
( ) 2. Serge is an example of worsted material.
3. Sni-a-fil is linenized cotton.
4. The hair fiber has no serrated edge.
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. $90^{\prime \prime}$ 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.
31. A piece-dyed material will be very fast as to color when made of wool.
( ) 32. Marquisette is an example of gauze weave.
33. Moire finish is a watered finish.
34. Damask is reversible.
35. A full-fashioned stocking has a seam at the foot.
( ) 36. Mohair is grown on the angora rabbit.
37. Cashmere is classed as hair.
38. Spun silk is made from short filaments.
39. Cellophane is a synthetic material.
40. The boot of the stocking refers to the leg.

1. 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.
2. Mohair has much resiliency.
3. Suede cloth has an emerized finish.
4. A calendered finish is permanent.
5. Synthetic yarns are brown in the natural state.
. Cotton is stronger when wet than dry.
6. Line refers to the long fibers of linen.
7. Teazeling refers to the shearing of velvet.
8. A taped edge to a sheet refers to a heavy thread along the edge of selvage.
( ) 52. At least 20 per cent of wool should be used in a blanket to give appreciable warmth over a cotton blanket.
9. Kapok is rayon floss.
10. Celanese is an acetate.
11. An ingrain stocking is one with a dull finish. 56. Boarding is a word which refers to the hem of a stocking.
( ) 5\%. A full fashion stocking is of silk material always.
12. Ply refers to the numbers of twists per inch in a yarn.
13. Sni-a-fil is a synthetic fabric.
14. Tubize is a Gorman method of making rayon.
15. Pina cloth is made of manila hemp.
16. Sateen has floats made of warp Jarn.
17. Grenadine refers to ply used for yarn.
18. A torn sheet will shrink more than a cut one.
19. Lappet is superior to swivel weave.
20. 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 Textile Institute sells sanforized materials.
( ) 70. An out size stocking is a half size.
21. Durene is a permanent finish on organdy.
22. Sanforizing is a finish for rayon.
23. Basso is a linen material.
24. Bleaching gives strength to linen.
25. 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 $\qquad$ weave.
2. A fabric usually shrinks more in the direction of the $\qquad$ yarn.
3. Acetate rayon are soluble in the solvent $\qquad$ .
4. In weaving, yarns not bound or woven for some distrance are called $\qquad$ .
5. An upholstery fabric having an uncut pile is called $\qquad$ .
6. Many silks are weighted with $\qquad$ which may produce a rash on the body.
7. Designate by which of the four major methods the following trade-named rayon are made:

Celanese $\qquad$
Bemberg $\qquad$
Lustron $\qquad$
Rayon $\qquad$
Tubize $\qquad$
8. Sanforizing refers to $\qquad$ shrinkage.
9. Lastex is a $\qquad$ material.
10. Spun silk is made from silk.
11. Pongee is produced by the $\qquad$ silk worm.
12. Reworked wool is referred to as $\qquad$ .
13. Circular knit stocking is knit in $\qquad$ 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 $\qquad$ stocking.
17. A hand-block print can be identified by the
___ of design.
18. Dotted swiss is an example of $\qquad$ weave.
19. Ply refers to the number $\qquad$ in a jarn.
20. A permanent mercerized finished cotton damask is sold under the trade name $\qquad$ .
21. The hair fiber does not have $\qquad$ .
22. The synthetic fiber, $\qquad$ ,
cannot be ironed with a hot iron.
23. Velvet has weave.
24. When a solution of cellulose is dried in sheet form it becomes $\qquad$ -
25. A material which shows holes in the selvage has been $\qquad$ -
26. A black silk with $15 \%$ weighting may be called
$\qquad$ -
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 $\qquad$
Embossed $\qquad$
Scott Tester $\qquad$
Fadometer $\qquad$
Weighting $\qquad$
Pulled wool $\qquad$
Cellulose Acetate $\qquad$
Celanese $\qquad$
Terry $\qquad$
Organzine $\qquad$
Tow
Shoddy
Beetling $\qquad$
Chardonnet
Wale $\qquad$
Nitrocellulose $\qquad$
Stock Dyeing $\qquad$
Scroop $\qquad$
Seracin

Part IV - Fabric Identification

| No. <br> Sam | Name of Fabric |
| :---: | :---: |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 |  |
| 10 |  |
| 11 |  |
| 12 |  |
| 13 |  |
| 14 |  |
| 15 |  |
| 16 |  |
| 17 |  |
| 18 |  |
| 19 |  |


| No. of Sample | Name of Fabric |
| :---: | :---: |
| 20 |  |
| 21 |  |
| 22 |  |
| 23 |  |
| 24 |  |
| 25 |  |
| 26 |  |
| 27 |  |
| 28 |  |
| 29 |  |
| 30 |  |
| 31 |  |
| 32 |  |
| 33 |  |
| 34 |  |
| 35 |  |
| 36 |  |
| 37 |  |

Identify the following weaves:
(1) (4) $\qquad$
(2)
(5) $\qquad$
(3) $\qquad$

Identify the following types of printing:
(1)
(4) $\qquad$
(2)
(5) $\qquad$
(3)
(6) $\qquad$

Identify the following types of dyeing:
(I)
(3)
(2) $\qquad$

Identify the following types of finishes:
(1) $\qquad$ (4)
(5)
(2) $\qquad$
(3) $\qquad$ (6)

Key for Answers to Exam for CT 250

PART I

| 1.- | $16 .-$ | $31 .-$ | $46 .-$ | $61 .-$ |
| :--- | :--- | :--- | :--- | :--- |
| 2.t | $17 .+$ | $32 .+$ | $47 .+$ | $62 .-$ |
| $3 .-$ | $18 .-$ | $33 .+$ | $48 .+$ | $63 .-$ |
| $4 .+$ | $19 .-$ | $34 .+$ | $49 .+$ | $64 .-$ |
| $5 .+$ | $20 .+$ | $35 .+$ | $50 .-$ | $65 .+$ |
| $6 .+$ | $21 .+$ | $36 .-$ | $51 .-$ | $66 .-$ |
| $7 .-$ | $22 .+$ | $37 .+$ | $52 .+$ | $67 .-$ |
| $8 .-$ | $23 .+$ | $38 .+$ | $53 .-$ | $68 .-$ |
| $9 .+$ | $24 .+$ | $39 .+$ | $54 .+$ | $69 .-$ |
| $10 .+$ | $25 .+$ | $40 .+$ | $55 .-$ | $70 .-$ |
| $11 .-$ | $26 .+$ | $41 .-$ | $56 .-$ | $71 .-$ |
| $12 .+$ | $27 .+$ | $42 .+$ | $57 .-$ | $72 .-$ |
| $13 .+$ | $28 .+$ | $43 .-$ | $58 .-$ | $73 .-$ |
| $14 .+$ | $29 .+$ | $44 .+$ | $59 .+$ | $74 .-$ |
| $15 .-$ | $30 .+$ | $45 .+$ | $60 .-$ | $75 .-$ |

## PART II

1. Leno, gauze marquisette
2. Warp
3. Acetone - glacial acetic
4. Floats
5. Frieze
6. Lead
7. Cellulose acetate

Cuprammonium
Viscose
Nitrocellulose
8. Shrinkage with $1 / 4^{\prime \prime}$
tolerance
9. Rubber
10. Short filaments
11. Wild
12. Shoddy
13. Circular or tubular
14. Watered
15. Resist

PART III

| $21-16$ | 13 | 17 | 7 |
| :--- | :--- | :---: | :---: |
| 15 | 12 | 18 | $24-6$ |
| 14 | 20 | 19 | 1 |
| 10 | 22 | 2 | 3 |
| 11 | 21 | 9 | 4 |

PART IV

1. Cretonne
2. Glazed chintz
3. Casement cloth
4. Buckram
5. Dotted Swiss
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
17. Painted voile
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

## WEAVES

1. Damask
2. Swivel
3. Pile
4. Satin
5. Plain

## PRINTING

1. Direct
2. Warp
3. Direct
4. Duplex
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
