Use of visual-verbal rating scales and verbal rating scales for student self evaluation

USE OF VISUAL-VERBAL RATING SCALES AND VERBAL RATING SCALES FOR STUDENT SELF EVALUATION

by

Mary Louise Warner

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SIGNED: Mary Louise Warner

APPROVAL BY THESIS DIRECTOR

This thesis has been approved on the date shown below:

Doris E. Manning — August 10, 1968

DORIS E. MANNING — Date

Chairman, Home Economics Education

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TABLE OF CONTENTS

Page

ABSTRACT

The purpose of this study was to discover if during student self-evaluation the use of visual-verbal rating scales would increase student motivation, as evidenced by higher performance in clothing construction, more than the use of verbal rating scales in a seventh grade clothing construction laboratory. It was hypothesized that there would be no significant difference of the mean rating between the group using the visual-verbal rating scales and the group using the verbal rating scales.

The subjects who participated in the study were 80 seventh grade girls in four clothing construction classes at Mansfeld Junior High School, Tucson, Arizona during the 1967 spring semester. Rating scales were developed by the investigator and were used by the students to evaluate construction results of the steps performed to construct a book bag and a shift (dress). The girl's final average for each project was recorded with her group's data.

Analysis of the data in this study revealed no statistically significant difference between the means of the obtained ratings.

INTRODUCTION

Educators and psychologists indicate that students need some form of reinforcement for their learning. Skinner (1953), Keller (1954) and Thomson (1959) agree that the secondary reinforcers used in the schools (i.e., praise, grades, promotion) indicate to the student how she has met teacher expectations. The student develops an awareness of success when she has experienced positive reinforcement. As a result she becomes motivated to push ahead in her education.

"Knowledge of results, high aspiration, and clear goals are the best preparation and incentive to self-motivation especially if the pupil is directed and encouraged to set his own goals" (Thomson 1959: 461). Student self-motivation might be a result when class goals have been set by the class and/or teacher, when students are stimulated and encouraged to do their best, and when students obtain knowledge of their result by rating their own work by using rating scales. Hall and Paolucci (1961:333) stated: "Students who are given the opportunity to use self-checking devices may gain interest and begin to grow in the ability to direct their own learning." Eventually educational reinforcement of good technique is replaced by products which are in themselves reinforcing (Skinner 1953:407-408).

To enable students to evaluate their learning several self-evaluative devices (i.e., check sheets, rating scales, diaries, etc.) have been used in the classroom. The investigator chose to use rating

scales which were developed specifically for the classes participating in this study (Appendices A and B).

The use of a verbal rating scale was most prevalent among motivational techniques found in the literature. However, Woodruff (1961) indicated that the first level of learning was the sensory level. Dale (1954) concurred by stating in his "Cone of Experience" that direct experiences are those that can be seen, handled, touched, felt, tasted and smelled. Dale went on to state that verbal symbols are "designations that bear no physical resemblance to the objects or ideas for which they stand" (p. 53). Therefore, the investigator believed that the use of a visual rating scale using actual samples to illustrate the various levels of achievement might aid the student in self-evaluation of her clothing construction project. The students in the classes studied were having their first experience in clothing construction, so it could not be assumed that they possessed the prior sensory experience needed to operate at the symbolic level.

In 1919 Katharine Murdoch published a dissertation entitled The Murdoch General Merit Sewing Scale which consisted of fifteen plates, each of which contained three views of a sewing sampler including basting, hemming, backstitching, combination stitching, overcasting, and running stitches. The plates ranged in approximately equal steps of quality from 0 to 16.4 (Brown 1941:443). These would be difficult to use extensively in the classroom due to the relative difficulty of translating the quality of the work from a photograph.

Justification

Arny (1953), Hall and Paolucci (1961), Schwartz and Tiedeman (1957), Van Til, Vars and Lounsbury (1961) and Zapf (1959) are among the educational authorities who have endorsed student self-evaluation as a useful motivational technique. Devices which have been used for application of the technique are pictures, check sheets, score cards and rating scales.

Adopting the concept of a rating scale, heeding the theories of Woodruff (1961) and Dale (1954), and observing the difficulties of applying Murdoch's Scales in the classroom led to the development of visual rating scales comprised of actual samples made by the test population's peers, as well as to the development of verbal rating scales which described those samples to assess student motivational improvement as evidenced by higher performance in clothing construction.

Problem

This study was designed to support or reject the hypothesis that there is no significant difference of the mean rating between group A and group B. A lack of significant difference would indicate no increased student motivation as evidenced by higher ratings on two projects in clothing construction. While group A used visual-verbal rating scales, group B used only the verbal section of the rating scales during the process of self-evaluation of product results in a seventh grade home economics classroom.

Definition of Terms

(1) evaluation: appraisal of the value of something by making a careful comparison of the details of it with a set of definite standards. (Woodruff 1961:103)

(2) self-evaluation: appraisal of the value of one's self or of one's achievements by making a careful comparison of the details involved with a set of definite standards.

(3) rate: to settle the relative quality of. (Webster 1953:2065)

(4) rating scale: a device which shows gradations of achievement from desirable to undesirable with approximately equal differences between the levels. (Army 1953:187)

(5) population: all of the seventh grade clothing construction students during the 1967 spring semester at Mansfeld Junior High School, Tucson, Arizona.

Summary

Educational authorities have endorsed student self-evaluation as a motivational technique. Rating scales are among devices used for application of the technique. When students have assumed the responsibility and possess the tools needed for self-evaluation their self-motivation will increase as evidenced by higher performance in clothing construction.

REVIEW OF LITERATURE

Within the last twenty years many educational authorities have endorsed the use of student self-evaluation. The general consensus of opinion among them was that self-evaluation helps students to develop stronger judgment of their abilities and to recognize their potential, thereby increasing motivation and prompting improvement of their work.

Self-Evaluation

As Rogers (1951:414-415) so aptly stated:

> Self-evaluation appears to be the logical procedure for discovering those ways in which the experience has been a failure and those respects in which it has been meaningful and fruitful. . . . Who is to say whether the student has put forth his best effort? What weaknesses and gaps there are in his learnings? What has been the quality of his thinking as he has wrestled with the problems which his own purposes have posed? The person most competant to perform this task would appear to be the responsible individual who has experienced the purposes, who has observed intimately his efforts to achieve them -- the learner who has been in the center of the process.

Symonds (1952:141) related the following view in support of student self-evaluation.

> The argument in favor of pupil self-evaluation is that the most significant aspect of education is the degree to which it has been meaningful, fruitful, and profitable to the learner himself. From the point of view of the educational experience, the advocates of pupil self-evaluation believe that it is more important that pupils should be encouraged to set their own goals and to assess the degree to which these goals have been met, than to have their achievement measured in terms of goals and tests set up by an outside authority.

Garry (1963), Rogers, Symonds, and others agreed upon the concept which stated that the learning process of students who were

evaluated by a teacher (or other observer) was hindered because the evaluation was more of a threat than a challenge.

Student Honesty

Will he be honest? Asch (1951), in his study of the non-directive psychology class, permitted the students to grade themselves. He believed that "the majority of the students were honest in the feeling that they had earned the final grade they requested."

Soundness of Judgment

Van Til, et al. (1961), have found that "in most cases the marks students assign themselves either agree with or are slightly lower than those given by their teacher. The student should be encouraged to think through the progress he has made, and present evidence to back up his evaluation." When the student's ratings are compared with those made by the teacher and the similarity or dissimilarity between the ratings are discussed, the student tends to develop better judgment and an objective point of view toward his own abilities and disabilities (Arny 1953:191).

Zapf (1959:306,310) recommends a teacher-student conference especially when the evaluations of both differ.

> The purpose of such a conference is not to give the teacher an opportunity to tell the pupil that he is wrong, but to reach mutual understanding and to arrive at an agreement if at all possible. The pupil explains his reasons for his evaluation and the teacher does the same. Sometimes it is the pupil who sees that he is wrong, but just as often it is the teacher, and at times the conference shows that both were wrong in their judgments. . . . If no agreement can be reached between the teacher and pupil, it is wiser to accept the pupil's evaluation than to insist that the teacher knows best.

Student Motivation

Price (1952) and Panlasigui and Knight(1930) expressed the hope that students would be stimluated when they recognized their status in light of the goals throughout a unit of study. In their study, Panlasigui and Knight gave the experimental group a set of standards which enabled each student to determine his own rating. The experimental group also kept progress charts. The control group did not rate themselves or keep progress charts. The latter (pp.615-616) found that:

> The beneficial effect of success was substantially in direct proportion to the amount of success available for motivation. Those who did succeed most in the Experimental Group succeeded more than those who succeeded most in the control group. Those who succeeded least in the Experimental Group did just as well as (but no better than) those who were in the lowest quarter of the Control Group. We could hardly expect very modest amounts of success to exert much motivation. The fact, however, that the lowest quarter of the Experimental Group did not suffer by knowing their progress by means of the standards and the progress chart is of much importance, because there is a notion current that awareness of failure actually reduces performance. . . . The use of objective records of success helps where the records reveal substantial progress, but has no effect where they reveal slight gains or no gains at all.

Rating Scales

The use of rating scales in this study was influenced by Arny's statement (1953:187) supporting them. "Rating scales are likely to be more refined measuring instruments than are score cards or check lists; not only do they include descriptions of different levels of quality, but the descriptions represent a continuum." Others who suggested use of a rating scale as an evaluative device are Greene, Jorgensen and Gerberich (1954), Schwartz and Tiedeman (1957), and Williamson and Lyle (1961).

Summary

The belief that student self-evaluation helps the student recognize the success of his performance has been supported by educational authorities. They also have expressed confidence in student honesty when rating himself. In fact, students may tend to rate themselves too low and teacher-student conferences have been recommended in such cases. Student motivation has been found to increase proportionately with student-experienced success. An evaluative device which enables students to rate themselves and thereby witness their degree of success is the rating scale.

PROCEDURE

This study was made to assess student motivational improvement as evidenced by higher performance in clothing construction indicated when seventh grade clothing students evaluate their own clothing construction projects at several partial-project stages. To be compared were the ratings made by student group A and student group B of two projects in clothing construction when group A used visual-verbal rating scales while group B used only the verbal section of the rating scales.

Selection of Subjects

The subjects participating in this investigation were the students in four seventh grade clothing classes (a total of 80 girls for each project) at Mansfeld Junior High School, Tucson, Arizona, during the 1967 spring semester. The students had been assigned at random by the assistant principal to the clothing classes taught by the investigator.

Each group consisted of students from two different classes. The range of student I. Q. was comparable in each group.

Development of Rating Scales

Visual Rating Scales (Appendix A)

Approximately 100 samples of each of the following clothing construction processes were collected from classes during the semester preceeding the investigation:

(a) staystitching; (b) regular (straight) stitching of a 5/8" seam; (c) hem, slipstitched by hand; (d) hem, machine stitched; (e) dart; (f) 5/8" curved seam; and (g) 5/8" curved seam with understitching.

From these samples were drawn representative examples for five levels of achievement. At least two examples for each level were selected because the investigator recognized that several types of errors were possible while the student would be performing at the same level of achievement. A visual scale for each construction process was made from the samples which illustrated five levels of achievement arranged in decreasing order from 1 to 5.

Each chart was judged for validity by a panel of five clothing teachers familiar with the ability of seventh grade girls in Tucson Public School District #1.

Verbal Rating Scales (Appendix B)

Based on suggestions made by Clara B. Arny (1953) a verbal rating scale was developed which described the samples used in the visual rating scale for each of the following clothing construction processes: (a) staystitching; (b) regular (straight) stitching of a 5/8" seam; (c) hem, slipstitched by hand; (d) hem, machine stitched; (e) dart; (f) 5/8" curved seam; and (g) 5/8" curved seam with understitching. The five levels of achievement used for these rating scales were arranged in increasing order from 5 to 1.

Each scale was judged for validity by the same panel of five home economics teachers familiar with the ability of seventh grade girls in Tucson Public School District #1.

Reliability and Validity

The first time these rating scales were used was during this investigation. Therefore, reliability was not established. Both scales were thought to be comparable because the verbal rating scales describe the samples used in the visual rating scales.

An attempt was made to establish the validity of the scales by having five home economics teachers familiar with the ability of seventh grade girls in Tucson Public School District #1 evaluate both rating scales. This was done prior to the time that the scales were used by the students.

Two Student Projects

The first student project, a book bag, required the use of stay-stitching of a 5/8" straight seam, and two methods of hemming. These processes were reviewed in the second project, a shift (Simplicity #6370). The shift required that the students learn these additional construction processes: darts, 5/8" curved seams, and curved seams with understitching.

Before any of the construction processes were carried out on either project the students were expected to test their performance of the process on a sample of material. This provided an opportunity for practice, evaluation and clarification of the process before completing it on the garment, reducing the probability of a costly error on the project.

For each of the projects two classes were in group A, which used the visual-verbal rating scales when the individuals rated their work;

while two different classes were in group B using only the verbal rating scales.

A work sheet for each project was provided for each group of students. It gave the major processes needed to construct the garment and the due date for each process. The work sheet for group A, which used the visual-verbal rating scales, indicated that the student should average the visual and verbal ratings for self-evaluation and provided columns to record student evaluation, teacher evaluation, agreed rating, and notes. The work sheet for group B, which used only the verbal rating scales, provided the same columns for recording ratings and notes. (Appendix C)

Collection of Data

During the collection of data the students followed the same procedures except that group A used the visual-verbal rating scales whereas group B used only the verbal rating scales.

(1) When the student had completed a process on her project she compared it to the rating scales used by her group. She decided upon the level which most nearly described her work and recorded that rating of her work in the proper column of the work sheet. She covered her evaluation by fastening a strip of construction paper over the student evaluation column to control the possibility of influencing the rating made by the teacher.

If the process was finished late, this was noted in the notes column and a reason was given.

(2) The teacher rated the work of the student by using the appropriate rating scale(s) as criteria and recorded her opinion in the proper column.

If the student or teacher felt there was too much difference between their ratings a conference was arranged, a rating agreed upon, and that rating recorded in the agreed rating column on the work sheet. This rating took priority for that step.

(3) The final rating for each project was computed by the student. She totaled the scores which she had awarded herself (or those agreed upon in conference) and divided the sum by the total number of steps in the project. If she believed that she had earned more, or less, than the final average indicated, she wrote the rating which she felt that she had earned in the final rating space on the work sheet, gave her reasons in the notes column, and arranged a conference with the teacher.

(4) The rating was submitted to the teacher (investigator) who listed it with student self-evaluative ratings submitted by other members of the same group.

Treatment of the Data

The mean of the ratings, their variance, and the deviation from the mean for each group's project was found and presented in Table 1. From these known terms a calculation was made to assess the significant difference of mean ratings between group A and group B, for both projects.

If the significant difference was found to be 1.96 or higher, that is a level of significance of 5% or less, then the null hypothesis would be rejected.

Summary

Having selected 80 subjects, developed rating scales, and checked reliability and validity of the rating scales, the investigator conducted the study, and collected and analyzed the data.

PRESENTATION AND ANALYSIS OF DATA

The data, having been collected, was analyzed to find the mean of the ratings, their variance, the standard deviation from the mean, the population, and the difference of the mean ratings between group A and group B for both projects.

Presentation of Findings

The difference of the means for each project was calculated by using the formula:

$$\frac{\bar{x} - \bar{y}}{\sqrt{\frac{\sigma_x^2}{N_1} + \frac{\sigma_y^2}{N_2}}}$$

when

$\bar{x}$ = mean of group A

$\bar{y}$ = mean of group B

σ_x^2 = variance of group A $\qquad$ N_1 = population of group A

σ_y^2 = variance of group B $\qquad$ N_2 = population of group B

The difference between the groups was 0.674 for project I, 0.290 for project II. Therefore, neither were significant at a level of 5%. (See Table 1)

Table 1: Data Collected from Two Groups for Both Projects

	Project I		Project II	
	Group A	Group B	Group A	Group B
Mean $\left(\frac{\Sigma X}{N}\right)$	2.60	2.48	2.18	2.14
Variance $\left(\frac{\Sigma X^2}{N} - M^2\right)$	0.5937	0.6690	0.4098	0.3488
Standard Deviation from the Mean $\left(\sigma = \sqrt{\frac{\Sigma X^2}{N} - M^2}\right)$	0.7705	0.8197	0.6402	0.5906
Population (N)	41	39	39	41
Difference	0.674		0.290	

Interpretation of Data

Because neither of the differences were significant at a level of 5%, the hypothesis remains as it was stated: there is no significant difference of the mean rating between group A and group B. A lack of significant difference would indicate no increased student motivation as evidenced by higher ratings on two projects in clothing construction. While group A used visual-verbal rating scales, group B used only the verbal section of the rating scales during the process of self-evaluation of product results in a seventh grade home economics classroom.

It cannot be assumed that visual-verbal rating scales are more effective than verbal rating scales for student self-evaluation in the

seventh grade clothing construction laboratory of home economics because increased motivation was not evidenced by higher performance.

Summary

The mean of the ratings, their variance, the standard deviation from the mean, and the difference of mean ratings gave no indication that student motivation was increased as evidenced by higher performance while using visual-verbal rating scales rather than verbal rating scales during self-evaluation of two projects in clothing construction in the seventh grade home economics classroom.

CONCLUSIONS AND RECOMMENDATIONS

This study was designed to collect information to support or reject the hypothesis that there is no significant difference of the mean rating between group A and group B. A lack of significant difference would indicate no increased student motivation as evidenced by higher ratings on two projects in clothing construction. While group A used visual-verbal rating scales, group B used only the verbal section of the rating scales during the process of self-evaluation of product results in a seventh grade home economics classroom.

Conclusions

Although there was no significant difference of means between group A which used visual-verbal rating scales while group B used only the verbal section of the rating scales, the investigator noted student reactions which support the use of the visual-verbal rating scales.

Students using the visual-verbal rating scales were often observed checking their construction step with the scale, ripping that section out, repeating the process, and rechecking before turning it in with their rating for that step. Asked why they did so they replied, "I wanted a higher rating, so I decided to re-do that step and get it." The students using the verbal rating scale were not observed repeating any of their work once it had been completed. Self-direction toward improvement is one of the goals of self-evaluation. If students assume this responsibility while using visual-verbal rating scales, and not

while using verbal rating scales, the use of the former would strengthen student judgment and objectives for future clothing construction projects.

Those students using the visual-verbal ratings seemed to be more at ease when rating their projects than those using the verbal rating scales. They could actually compare their work to a sample on the visual part of the scales thereby reinforcing their interpretation of the verbal scales. Some students in group B had difficulty making the translation from words to a mental image of the rating and had nothing to reinforce their interpretation.

Recommendations

If students are asked to evaluate their progress in a seventh grade clothing construction laboratory, and stimulation to improve their work is a goal of such evaluation, the use of a visual-verbal rating scale is recommended.

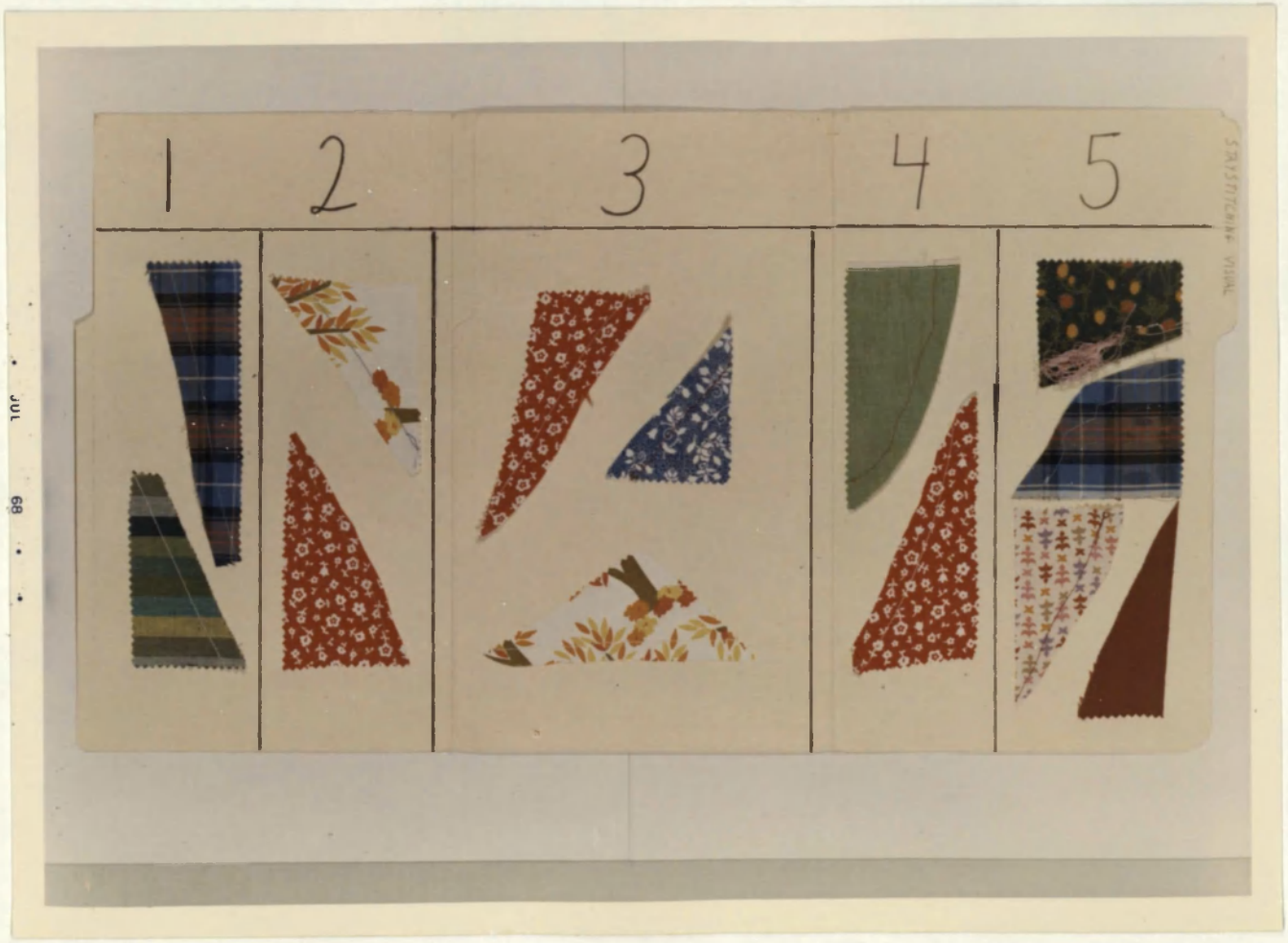
The investigator believes that further study in the area would be appropriate. The extension of this study to three student groups using (1) verbal, (2) visual, and (3) visual-verbal rating scales might lead to greater support for the use of a visual rating scale. The use of larger groups might lead to more statistically significant results.

It was felt that student performance of a skill was not a good criteria for checking motivation. Therefore in future studies other learning problems such as retention, transfer, or self-direction, might be considered in relation to the use of rating scales.

Summary

Increased motivation as evidenced by higher performance was not shown statistically. However the investigator noted other aspects which indicated support for the use of visual-verbal rating scales during student self-evaluation.

APPENDIX A



VISUAL RATING SCALE FOR STAYSTITCHING

APPENDIX B

VERBAL RATING SCALES

Staystitching

Directions: Compare your staystitching to the descriptions given below. Find the rating which most nearly tells how your staystitching looks and record the number located at the left of the description in the correct place on your sample sheet or work sheet.

5. Stitching extremely crooked.
   Severe knots.
   Thread tension poor.
   Unnecessary puckering.
   Stitch length extremely long or short.

   Or NO staystitching at all.

4. Stitching very crooked.
   Tight knots formed by machine.
   Tension off too much.
   Stitch length off too much.

3. Stitching a little crooked.
   No severe knotting.
   Tension off a little.
   Stitch length slightly off.

2. Stitching straight, 1/2" or less from edge.
   Small knot easily removed with a pin.
   Tension almost perfect.
   Correct stitch length. (12 st./in.)

1. Stitching straight, 1/2" or less from edge.
   No knotting.
   Tension perfect.
   No puckering.
   Correct stitch length. (12 st./in.)

Straight Seam

5. Part of garment or seam allowance caught in seam.
Width of seam allowance very uneven.
Machine tension extremely incorrect - causing knots.
Stitch length incorrect (more or less than 12 st./in.)
Stitching extremely crooked.
Incorrect sides of material sewn together.

4. Backstitching incorrect - too long or none.
Puckering in the seam.
Seam width uneven.
Stitch length incorrect (more or less than 12 st./in.)
Stitching crooked.
Machine tension incorrect.

3. Backstitching slightly too long.
Seam width slightly uneven.
Machine tension slightly incorrect.
Stitch length correct.
Stitching slightly crooked.

2. Backstitching not more than 1/2" long.
Seam width correct (5/8" unless told otherwise).
Machine tension correct.
Stitch length correct (12 st./in.)
Stitching very slightly crooked (more or less than 5/8")

1. Backstitching not more than 1/2" long.
Seam width correct (5/8" from edge).
Machine tension correct.
Stitch length correct (12 st./in.)
Stitching even - straight - (5/8" seam).

Slipstitched Hem

5. Large, unsightly knots, or no knots.
Stitches extremely uneven in length.
Slipstitching not used.
Raw edge not turned under 1/4".
Stitching is very visible on outside.

4. Small, unsightly knots.
Stitches quite uneven in length.
Raw edge not staying turned under 1/4".
Stitches cause puckering.
Hem width uneven.

3. Knots visible, but neat.
Stitches somewhat uneven in length.
Raw edge turned under more than 1/2" wide.
Stitches show very much on the outside.
Hem width even.

2. Cannot see knots.
Stitches mostly even.
Raw edge turned under more than 1/2" wide.
Stitches show very slightly on outside.
Hem width even.

1. Cannot see knots.
Stitches even in length.
Raw edge turned under 1/2" or less in width.
Stitches do not show on outside.
Hem width even.

Machine Stitched Hem

5. No knots on backstitching.
Machine tension very incorrect, may cause knotting.
Stitch length incorrect.
Hem edge not turned under.
Stitching extremely crooked.

4. Too much backstitching; too long or too often.
Machine tension slightly incorrect.
Stitch length incorrect (more or less than 12 st./in.)
Hem width very uneven.
Stitching quite crooked.

3. Backstitching is too long.
Machine tension minutely incorrect.
Stitch length correct (12 st./in.)
Hem width slightly uneven.
Stitching crooked.

2. Backstitching slightly too long (over 1/2").
Machine tension correct.
Stitch length correct (12 st./in.)
Hem width even.
Stitching slightly crooked.

1. Backstitching not more than 1/2" long.
Machine tension correct.
Stitch length correct (12 st./in.).
Hem width even.
Stitching straight.

Darts

5. No backstitching at seam end.
Point not tied off.
Traced dart lines don't match.
Machine tension extremely incorrect - causing knots.
Stitching extremely off of dart lines.
Incorrect stitch length.
Dart on "right" side of fabric.

4. No backstitching at seam end.
Point not tied off.
Traced lines don't match.
Machine tension incorrect.
Stitching off of dart lines.
Incorrect stitch length.

3. Either no backstitching OR not tied off at point.
Point tied but puckered.
Traced lines off slightly.
Machine tension slightly incorrect.
Stitching slightly off of dart lines.
Correct stitch length.
Dart not pressed in correct direction.

2. Either tied at <u>both</u> ends, OR backstitched at seam end and tied at the point.
Traced lines matched.
Machine tension correct.
Stitching slightly off dart lines.
Correct stitch length.
Darts pressed in correct direction.

1. Either tied at <u>both</u> ends, OR backstitched at seam end and tied at the point.
Traced lines match.
Machine tension correct.
Stitching on dart lines.
Correct stitch length.
Darts pressed in correct direction.

Curved Seam

5. No staystitching.
Seam allowance too wide or narrow.
Machine tension extremely incorrect - causing knots.
Stitch length incorrect.
Stitching extremely uneven.

4. No staystitching.
Seam allowance almost correct: 5/8".
Machine tension incorrect.
Stitch length incorrect.
Stitching very uneven.

3. No staystitching.
Seam allowance almost correct: 5/8".
Machine tension slightly incorrect.
Stitch length incorrect.
Stitching uneven.

2. Staystitching at 4/8" or less: even.
Seam allowance correct: 5/8".
Machine tension correct.
Stitch length correct: 12 st./in.
Stitching slightly uneven.

1. Staystitching at 4/8" or less: even.
Seam allowance correct: 5/8".
Machine tension correct.
Stitch length correct: 12 st./in.
Stitching even.

Curved Seam With Understitching

5. Seam not understitched or extremely uneven.
Seam not clipped or trimmed.
Machine tension extremely incorrect - causing knots.
Stitch length incorrect.
Stitching extremely uneven.
Outside of garment caught by understitching.
Seam allowance very bunched up by understitching.

4. Understitching very uneven.
Seam clipped or trimmed unevenly.
Clipping through seam.
Machine tension incorrect.
Stitch length incorrect.
Stitching very uneven.
Small amount of outside of garment caught by understitching.
Seam allowance bunched up by understitching.

3. Understitching uneven.
Seam clipped and trimmed unevenly.
Machine tension slightly incorrect.
Stitch length incorrect.
Stitching uneven.
None of outside of garment caught.
Seam allowance slightly bunched up by understitching.

2. Understitching even.
Seam trimmed and clipped evenly.
Machine tension correct.
Stitch length correct: 12 st./in.
Stitching slightly uneven.
Seam allowance smooth and flat.

1. Understitching even.
Seam trimmed and clipped evenly.
Machine tension correct.
Stitch length correct: 12 st./in.
Stitching even.

APPENDIX C

PARTIAL WORK SHEET FOR SHIFT

Directions: When you complete each step in construction, evaluate your work by comparing it to the standard rating scales. Record your grade in the student column, flip the cover strip over your column and turn the check sheet and your shift into the teacher. She will use the rating scale and enter her rating in the teacher column. If you, or the teacher, feel there is too great a difference between the grades, a conference may be arranged and an agreeable grade (to both of you) will be decided upon.

Repeat this method for each step. Either you or the teacher may enter a "?" in the grade column if a grade is not easily reached, and a conference will be arranged.

After the dress is completed, total the grades in your column (using the ratings agreed upon in conference, if any) and divide the total by 12. If you honestly feel that you deserve a higher grade than is indicated by your final average, make a note of it in the notes column and arrange a conference with the teacher.

STEP:	DUE DATE	STUDENT	TEACHER	AGREED RATING	NOTES
I. Pattern Layout	April 11				
II. Cutting	April 12				
III. Front					
Staystitching	April 14				
Darts	April 18				

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