5-1971

A Comparison of Two Methods of Teaching Drawing to High-School Students

Olive Wittman
Western Kentucky University

Wittman,

Olive A.

1971

A COMPARISON OF TWO METHODS OF TEACHING DRAWING TO HIGH-SCHOOL STUDENTS

A Thesis

Presented to

the Faculty of the Department of Secondary Education

Western Kentucky University

Bowling Green, Kentucky

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

Olive A. Wittman

May 1971

A COMPARISON OF TWO METHODS OF TEACHING DRAWING

TO HIGH-SCHOOL STUDENTS

APPROVED May 14, 1971:
(Date)

D. Nice Peters
Director of Thesis

Verne K. Shelton

Saul E. Power

John Dean Minton
Dean of Graduate School

ACKNOWLEDGMENTS

The author wishes to express her sincere appreciation to Dr. D. Neil Peterie for his patience, constructive criticism, and guidance during the course of this investigation.

Particular thanks is extended to Mr. William Green, Mr. John W. Oakes, Mr. William C. Weaver, Mr. Leo A. Fernandez, Mr. Harry W. Miller, and Mr. Maurice Sevigny who gave so generously of their time and knowledge to judge pictures and give helpful criticism.

Sincere gratitude is extended to Mr. Chester Redmon and Mrs. Bettie Anderson for their help in arranging for and conducting the experiment.

Also, thanks is extended to Dr. James S. Wittman, Jr., for stimulation and encouragement to do research in art education.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER ONE

THE PROBLEM

Introduction

Art teachers have the responsibility to educate students in art, and it is assumed that they have teaching objectives in terms of student behavior toward which they strive. While trying to accomplish the objectives, teachers are concerned with problems of learning, subject matter, instructional materials, organization for instruction, and instructional method. Gage commented that each of these was important, but he suggested that perhaps instructional method was the closest of these to the heart of teaching.[1] Before giving instruction, the art teacher must make a decision as to what method he ought to use to best accomplish the educational objectives. The question confronts him, "Is teacher behavior during instruction related to subsequent student performance?" Unless he is contented to teach in a haphazard manner, the art educator must know what difference the use of a particular instructional method will make. For a dependable answer to his question he needs some empirical substantiation to indicate to him whether a certain teacher behavior during instruction will be likely to aid in achieving the educational objectives to a greater degree than will some other teacher behavior.

---

[1]This was discussed by N. L. Gage in "Analytical Approach to Research on Instructional Methods," Phi Delta Kappan, XLIX, (June, 1968), pp. 601-6.

Statement of the Problem

In order to gain some evidence as to what difference the use of some particular instructional methods would make, an experiment was carried out. The experiment reported in this study is an example of a small investigation which an in-service art teacher can make, along with his regular teaching. It compared the effects of two instructional methods or two different teacher behaviors, on the students, in teaching drawing. Two classes of students were taught drawing by the same instructor who deliberately modified the degree of "directiveness" used in his teaching. In the "directed" group the teacher employed a strict instructor-controlled dictation-demonstration method. In the "non-directed" or "permissive" group, the teacher allowed students to completely control their own procedures after the assignment and materials were given.

Need for the Study

At the time the study was made art teachers had little reliable information available to answer the question as to what instructional method was most appropriate. There was a paucity of reports of research about the effects of teacher behavior during instruction. But, the researcher thought that a competent art teacher, trained in research methods and design, could aid in investigation to find reliable answers to questions about instructional methods. In his classroom the art teacher is in an advantageous position to examine the teaching role and its relation to student behavior. The researcher believed that the art teacher, as a professional, must accept responsibility for examining both his objectives in teaching and his

methods of achieving them, in order to be fairly sure of the probable effects of his teaching. Another responsibility was to exchange findings with other professional art educators and to add to a growing body of accessible, substantiated knowledge about art education. There was the responsibility, too, to be acquainted with and to use principles gained through research to improve art education. It was the researcher's hope that this study could provide information that would be useful to art teachers.

Underlying Questions

The basic purpose of the study was to investigate the relationship of the teacher's instructional method to three vital areas in teaching drawing: (1) artistic quality of the drawings, (2) work pattern displayed by the students while drawing, and (3) interest level and satisfaction of the students. Answers were sought for questions in the three areas:

1. Artistic quality of the drawings

   a. Were student's drawings more structurally pleasing after the teacher used the directed or the permissive instructional method?

   b. Did students use more uniqueness in drawing after they had been directed or after permissive instruction?

2. Work pattern displayed by the students

   a. Did fewer students hesitate before beginning to draw and stop less often after being instructed by the directed method or by the permissive method?

3. Interest level and satisfaction of the students

a. Did more students express interest or "willingness to draw" after they had been treated by directed or by permissive instruction?

b. Were more students satisfied with the process of making the drawing after the teacher gave directed instruction or after permissive instruction?

c. Were more students satisfied with their drawings after being subjected to directed or to permissive instructional treatment?

Delimitations of the Study

1. The study was limited to twenty-one students enrolled in two art classes in an urban Kentucky high school.

2. The findings of this study are applicable only to students taking General Art I at Bowling Green High School during the 1970-71 school term.

3. The problem was limited to drawing front-view head-and-shoulder portraits of the posed model using 12-inch by 18-inch white drawing paper and 8-color wax crayons.

4. Only two instructional methods were used, the directed method and the permissive method.

5. The experiment was performed in four sessions for each of two groups. The first session was a pre-test; the second and third sessions were the treatment sessions; and the fourth session was the post-test.

6. Data were obtained from evaluation of the drawings, observation of the subjects while drawing, and a questionnaire

completed by the subjects. The experimental teacher was observed for control purposes.

Limitations of the Study

This study is limited by the following factors:

1. As many experimental variables as possible were controlled by the investigator. However, certain environmental factors which may have affected the subjects' responses, such as fatigue, emotional stability, state of health, and mental attitude were impossible to control completely.

2. A standardized instrument appropriate for use in measuring the artistic quality of the drawings in the study could not be located. Therefore, two instruments were devised, validated, and used for measuring pleasing structure and uniqueness, two aspects of artistic quality.

3. The scope of the drawing problem and the media employed were deliberately limited so that any difference in the artistic quality of the drawings, the work pattern of the students, and expressed feelings of interest and satisfaction of the students could be attributed to the effect of instructional method.

4. The study was conducted using only twenty-one subjects. However, this was one-third of all of the students taking General Art I in the high school at the time of the study.

Assumptions of the Study

This study is based on the following assumptions:

1. Two applications of the instructional treatment were sufficient to cause a difference, if there was a difference.

2. Uniqueness, pleasing structure, interest, satisfaction, hesitation, stopping, teacher image, and adherence to method could be measured.

3. Differences were caused by the experimental variables and not by unknown factors.

4. Students were not copying from another student's drawing.

5. The measuring instruments were valid.

6. The teacher, judges, and observers were proficient to perform their functions.

Definitions of Terms

1. Artistic quality.--An attribute of a drawing when it was structurally pleasing and was characterized by uniqueness.

2. Average or better quality.--A designation denoting good or excellent rating as compared to drawings of high-school students in general.

3. Balance.--A state of equilibrium existing when colors, values, and other elements were arranged equally in a drawing. In this study, balance was a quality adding to the pleasing structure of a drawing.

4. Beginning hesitancy.--A time lapse after the subject was told to begin drawing until he began to draw.

5. Below average quality.--A designation denoting poor or failing rating of drawings of high-school students in general.

6. Contrast.--A condition achieved by juxtaposing elemental extremes in the composition, for example, light areas against dark areas, plain areas against patterned areas, highly intense colors

against low intensity colors, small size against large size, warm color against cool color. Contrast as used in this study contributed to the pleasing structure of a drawing.

7. Directed method.--A teaching method in which the teacher explained and demonstrated a step-by-step method showing the students exactly how to make the drawing. The students were instructed to draw as the teacher did, but if the students deviated, the teacher did not reprimand nor punish them.

8. Emphasis.--A quality present in a drawing when there was a center of interest to which the eye returned. Emphasis increased the artistic quality of the drawing.

9. Experimental teacher.--The teacher who conducted all of the sessions of the experiment for the study. His function was to teach front-view portrait drawing and adhere to the prescribed instructional methods.

10. Interest.--The willingness of the student to draw.

11. Motivation.--An internal state of tension, desire, or need which induced the individual student to draw.

12. Non-directed method.--An instructional method in which the teacher did not direct the students. Each student was permitted to devise his own method of drawing.

13. Observing teacher.--A teacher present during all sessions of the experiment to rate the experimental teacher's classroom appearance, performance, and attitude, and to note any deviation from prescribed method of instruction.

14. Permissive method.--A teaching method in which the teacher did not explain, present, demonstrate, nor imply how to draw the

picture or any part of it. He told the students to draw what they saw. Permissive method is synonymous with non-directed method.

15. Pleasing structure.--An attainment in the composition of the drawing when color, line, shape, value, and texture were used so as to achieve emphasis, balance, repetition, variety, and unity. Such a drawing would give esthetic satisfaction to the viewer.

16. Repetition.--A condition present when the same lines, shapes, values, intensities, colors, or proportions appear more than once in a drawing composition and thus contribute to the pleasing structure of a drawing.

17. Satisfaction.--The degree of contentment, gratification, or pleasure of which the subject was aware in respect to his drawing or the process of drawing it.

18. Uniqueness.--A quality of being unusual or occurring infrequently. It was an aspect of creativity which used already existing materials and knowledge and made a statement in which some element was new. In this study a detail which appeared three times or less in all of the drawings made in one session by one group was considered unique.

19. Unity.--A quality present when the parts of the drawing composition had cohesion because some lines intersected, shapes overlapped, lines and edges appeared and disappeared, and all parts added to a central purpose. The presence of unity in the drawing increased the structural pleasurableness of the drawing.

20. Variety.--A condition existing when there were some differences of size, value, color, intensity, thickness, proportion, and shape in a drawing composition. Variety in the elements of the drawing contributed to its pleasing structure.

Summary

It was indicated in this chapter that a study dealing with the relationship of instructional method, or teacher behavior, to student behavior was needed. A classroom experiment was designed to compare the effect of two opposite methods of teaching drawing in high school. Delimitations of the study were formulated, limitations and assumptions were listed, and terms defined.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

Many articles in journals for art educators were descriptive of art media and techniques; however, substantiated reports of research about effects of instructional method in teaching drawing appeared to be non-existent. Beliefs were expressed favoring one or the other method of instruction, but such writings did not support these beliefs empirically. Occasionally, confusion was admitted about instructional method,[1] but opinions seemed to polarize around two opposite methods of instruction: the directed method[2] and the permissive method.[3]

---

[1]Hiram Williams, "On Teaching Art," Art Education, XXI, (May, 1968), p. 6.

[2]The directed method was supported by J. Galen Saylor and William M. Alexander in Curriculum Planning for Modern Schools, (New York: Holt, Rinehart and Winston, Inc., 1966), p. 220; Elliot W. Eisner in "Evaluating Children's Art," in Readings in Art Education, ed. by Elliot W. Eisner and David W. Ecker (Waltham, Mass.: Blaisdell Publishing Co., 1966), pp. 353-4; and Manual Barkan in "Transitions in Art Education: Changing Conceptions of Curriculum Content and Teaching Art," Art Education, XV, (October, 1962), p. 421.

[3]The permissive method was supported by Jerome S. Bruner in On Knowing, (Cambridge, Mass.: Harvard University Press, 1962), p. 82; Harry S. Broudy in "The Case for Art Education," Art Education, XIII, (January, 1960), p. 8; Albert W. Beck in "Loss of Reason and a Lack of Structure," School Arts, LIX, (October, 1969), pp. 24-5; and Blanche Jefferson in Teaching Art to Children, (Boston, Mass.: Allyn and Bacon, Inc., 1965), p. 51.

Investigation in the field of art education was slow in starting. As late as 1958 artists and art teachers distrusted researchers and considered research to be "anti-art."[4] But, soon after that, some art educators began using appropriate research tools and stringent design to investigate the creator and his product. During the following decade interest in research about art education increased. Barkan summarized the attitude of leading art educators when he stressed the need for systematic research, development, and trial of curricula for art instruction. He stated that problems about concepts and methods were being examined and defined with increasing clarity.[5] Empirical studies had been made in areas related to instructional method in teaching art. In such studies the main objective was to investigate something other than methods, but in their investigations, these studies suggested some principles about the effect of instructional method. There was reason to expect new knowledge to be gathered through experimentation in the area of methods in teaching art.

The Studies

Historically, research about teaching was almost as old as was research on learning; it began in the 1910's and has continued. However, solid usable results from teaching did not keep up with results of research about learning. Gage commented that the study

---

[4]Attitudes toward research were reviewed by Jerome J. Hausman, reviewer, in "From Doubts to Inquiry," Review of Educational Research, XXVIII, No. 2 (1958), pp. 169-70.

[5]Manuel Barkan, co-editor, "Editorial," Studies in Art Education, IX, (Spring, 1968), p. 1.

of learning was well established with many findings that filled volumes of substantial literature. But, during the same period the research on teaching yielded many findings that were inconclusive. He said that there was a problem about use of appropriate and measurable criteria whereby teaching ability could be measured. This problem about use of criteria led to a large number of studies being rejected because there were no clear conclusions.[6]

Because the criterion approach proved sterile, researchers in teaching followed the approach used by researchers in chemistry, physics, and biology and were able to make progress through finer analysis of phenomena. Gage used the phrase, "micro-criteria of effectiveness."[7] This pointed attention to small, specifically defined aspects of the teaching role. The importance of using Gage's micro-criteria concept was that an attempt was made to analyze teaching into limited, well-defined components that could be taught, practiced, evaluated, predicted, controlled, and understood, rather than to analyze teaching as a whole, using broad or vague criteria and allowing for many unknown influencing variables. When focusing analysis on clearly delimited areas of technical skill in teaching, relevant independent variables could be measured or manipulated to conduct experiments. Relevant dependent variables could be analyzed and measured.

Gage cited an example of technical skills analysis used in a study focusing on "explaining" or the skill of engendering

---

[6]N. L. Gage, ed., "Paradigms for Research of Teaching," Handbook of Research on Teaching, (Chicago: Rand, McNally, 1963), pp. 94-141.

[7]Ibid., 120.

comprehension, usually orally, verbally, or extemporaneously, of some process, concept, or generalization. "Explaining" appeared to be the inner essence of instruction.[8]

Gage's concepts of micro-criteria and technical skills analysis seemed applicable for use in designing an experiment for investigation of instructional methods in teaching drawing. The directed method could be considered a visual way of explaining to engender comprehension of a workable method of drawing. Gage experimented with a small area of the effectiveness of explaining. The art researcher could, by limiting the drawing concept and media, experiment with a small area of method of teaching drawing. He could manipulate the independent variable, instructional method, and measure the effect on such dependent variables as artistic quality of the drawing, work pattern of the student, and expressed satisfaction of the student.

Further search of the literature yielded no reports of research in which the primary purpose was to compare the effects, on the students, of the directed instructional method as compared to another method. However, reports of seven studies made during the decade 1960-1970 were found. These studies were concerned with small, specifically defined areas of the teaching role. In each of the studies there was reported a finding or findings which suggested an effect of instructional method on the students. The relevant findings of the studies follow:

---

[8]Gage, "An Analytical Approach," 603.

Brittain reported a study made at the New York State College of Home Economics of Cornell University. He found that adolescent youngsters demonstrated enthusiasm and excitement for art. Their need for artistic guidance and encouragement was indicated. He noted the lack of studies about junior-high art.[9]

A study of an experimental summer art class and a survey of 550 junior-high school students was made at the New York State College of Human Ecology of Cornell University. It found that youngsters can teach themselves many intellectual skills. A free and unstructured classroom facilitated this process. Art teachers could best foster creativity by encouraging interaction of students in an informal setting.[10]

Robert Clements reported that he experimented with the relation of motivation and satisfaction, the increase and decrease of motivation, the good and poor students, the ease in solving problems, and the original ideas. He found that students were more motivated but less satisfied by problems which were largely their own ideas.[11]

Paul E. Torrance and the staff at the Bureau of Educational Research at the University of Minnesota found that teachers with creative attitudes and motivations got significant gains in

---

[9]W. Lambert Brittain, "An Exploratory Investigation of Early Adolescent Expression in Art," Studies in Art Education, IX, (Winter, 1968), pp. 5-12.

[10]New York State College of Human Ecology, Cornell University, The College of Human Ecology (a brochure, 1970), p. 28.

[11]Robert Clements, "Research in the Classroom," Art Education, XIX, (November, 1966), p. 24.

creativity exhibited by children. Also, if the school principal did not support creative teaching, the teacher was inhibited. And, greater fluency, flexibility, and originality resulted from competition in grades 1-6.[12]

In other studies concerning creative thinking, Torrance made some findings related specifically to the effects of the directed method of teaching. He listed nineteen observable student behaviors indicative that creative learning was taking place. Examination of the list showed that in at least seven of the behaviors the student had gone beyond the direction of the teacher and was directing himself. When he was directing himself, it could be considered the permissive instructional method.[13]

A survey of students' perception of conditions provided by the teacher to aid creativity led Paul Edmonston at Pennsylvania State University to conclude that the teacher and his behavior was the most important factor in the educational environment. Creativity was hindered by expectation of identical responses from all students, imposition of a technique on the students, and demonstration of step-by-step techniques. Creativity was aided by emphasis on creative process rather than on final product, no penalties made for mistakes, and encouragement of experimentation. Creative teachers were characterized by having the capacity to point out relationships, to explain and demonstrate processes clearly, and

---

[12]Paul E. Torrance, "Identifying the Creatively Gifted Among Disadvantaged Children," The Education Digest, XXX, (March, 1965), pp. 8-11.

[13]Ibid., 11.

to view learning as a continuous process. Edmonston's survey, made on a group of art education undergraduates, may not be applicable on secondary level.[14]

In experimenting with teaching methods, Kenneth Beittel at Pennsylvania State University found that highly spontaneous students resisted attempts to set goals for them and did their best work independent of group instruction.[15]

Harlan Hoffa of Boston University studied the teaching role in art education and found that teaching was a role-playing activity. The teacher played sub-roles which enriched the role of teacher. To simply and directly ask students to be creative improved creativity; the students played the creative role.[16]

Summary

The search of the literature revealed no reported research in which the primary objective was to compare the effects, on high-school students, of two teaching methods, namely, the directed method as compared to the permissive method, in drawing in art class.

A report of the use of micro-criteria to study small specifically defined aspects of the teaching role was helpful in planning the experiment to compare the effect of two teaching methods.

---

[14]Paul Edmonston, "Conditions Which Enhance or Inhibit Creative Thinking and Learning," Eastern Arts Association Quarterly, XIX, (April, 1962), p. 21.

[15]Kenneth R. Beittel, "Construction and Reconstruction of Teaching Methods Through Experimental Research," The Eastern Arts Association Quarterly, XIX, (April, 1962), pp. 48-55.

[16]Harlan Hoffa, "Research Pertaining to the Teaching Role and Its Significance to Art Education," The Eastern Arts Association Quarterly, XIX, (April, 1962), pp. 5-8.

Some studies suggested that student motivation was increased by the permissive method of instruction, but that student satisfaction with his product was increased by directed instruction. Creativity of students was implemented by certain attitudes and behaviors of the teacher, and evidences of creative learning on the part of students could be recognized by the teacher.

CHAPTER THREE

THE EXPERIMENT

Subjects

The subjects were part of a student body of a new high school of approximately 1600 students including grades nine, ten, eleven, and twelve. The high school was located in a city of approximately 40,000 population in western Kentucky.[1] Five classes in General Art I were offered in the school. Each of the five classes was composed of a heterogeneous grouping of ninth, tenth, eleventh, and twelfth grade students not segregated on ability or grade level. The students were studying General Art I as an elective subject. Two of the five classes were chosen to participate in the experiment because they met in the morning of the same day each week. The first-period class, designated as Group B in the study, was composed of sixteen students; the third-period class, designated as Group A, was composed of twelve students. Five students of the first-period class and one student of the third-period class were dropped from the study because they were not present for all four sessions. This resulted in N=11 in Group A and N=10 in Group B.

The permission and support of the high-school principal and regular art teacher were secured. The experiment was scheduled for

---

[1] Bowling Green High School, Bowling Green, Kentucky, occupied new location and buildings in September, 1970.

and performed in November, at the rate of one period each week for each of the two groups for four consecutive weeks.[2] The regular art classroom and the regular art class period of fifty minutes were used for each session of the experiment. The subjects were not informed that they were participating in an experiment.

Personnel

There were two teachers present for each session. The regular art teacher[3] was there as a representative of high-school authority and as an observer of the experimental teacher's classroom behavior and adherence to the prescribed method of instruction. The regular teacher was qualified by education and teaching experience to be a competent observer. The experimental teacher[4] prepared and executed the prescribed procedures for the experiment. She was qualified by education and experience to function in this capacity. She was introduced to the subjects as a visiting teacher.

Three additional observers were present in each group during the post-test session. These observers were high-school students selected by the regular art teacher because they were available and were considered to be competent to perform as observers. The experimental teacher instructed them in their duties, gave them the necessary notation forms, and stationed them to observe, at the beginning of the post-test session in each group. Each observer was

---

[2] November 4, 11, 18, and 23, 1970.

[3] Mrs. Bettie Anderson.

[4] Mrs. Olive A. Wittman.

responsible to observe subjects assigned to him while the subjects were drawing. All subjects were observed.

Six judges evaluated drawings. The judges were selected because they were professional artist-teachers and well qualified to judge drawings. Three of the judges validated two measuring instruments.[5] The two measuring instruments had been designed to control the judges in the use of uniform criteria for evaluating the drawings. In the validation procedure each judge used the instruments to judge the same set of twelve drawings. Suggestions of the validating judges were used to improve the measuring instruments. The three other judges evaluated the drawings made by the two groups in the pre-test and post-test.[6] They used the validated instruments.

Experimental Design

Twenty-one high-school students in two classes studying General Art I participated in the experiment. An experimental teacher taught front-view portrait drawing to the two groups on the same morning each week for four weeks. In each group, the first session was the pre-test session and the fourth session was the post-test session. In the second and third sessions, Group A was subjected to directed instruction and Group B was treated by the permissive method.

The drawings made in the first session were judged for pleasing structure and uniqueness of the drawings to ascertain if

---

[5] Mr. William Green, Mr. John W. Oakes, and Mr. William C. Weaver.

[6] Mr. Leo A. Fernandez, Mr. Harry W. Miller, and Mr. Maurice Sevigny.

one group was approximately equal to the other in ability to draw portraits at the beginning of the experiment.

The drawings made in the fourth session were judged on the basis of pleasing structure and uniqueness of the drawing to find out if there was any difference in the artistic quality of the drawings produced by the two groups after experiencing two applications of the controlled instructional methods.

All subjects were observed while drawing in the fourth session and pertinent information about hesitancy and stopping was noted.

At the end of the fourth session a short questionnaire was administered to the subjects to get an indication of the subjects' feelings as to their interest level or "willingness to draw," satisfaction during drawing, and satisfaction with their drawings, to find if there was any difference between the groups.

An observing teacher was present in all sessions for control of the experimental teacher's behavior and adherence to prescribed method.

Sessions were fifty-minute periods in the same room.

The drawing problem was the same for each group in all sessions. It consisted in the drawing of a front-view head-and-shoulder portrait of a posed model, using 12-inch by 18-inch white drawing paper and 8-color wax crayon sets.

The drawing problem was chosen for the following reasons:

1. It was part of the regular high-school art curriculum.

2. It was considered to be interesting enough to the students so that four sessions of the same problem would not bore them.

3. The experimental teacher was familiar with a method for drawing this problem.

4. The length of the regular class period was sufficient for completing the drawing in one session.

5. The materials used were familiar to the subjects and could be easily precured, distributed, and cleaned up.

6. It was hoped that, by limiting the scope of the drawing and the media, the effects of instructional method would be obvious.

Examples of portraits made by other artists were shown after the experiment so as not to cause bias.

Data to be Collected

In order to collect data applicable to the underlying questions of the study (see questions, pp. 3-4), the following comparisons were made:

1. A comparison the pleasing structure and uniqueness present in the pre-test drawings of Group A as compared to those of Group B, to ascertain if the two groups were equal at the beginning.

2. A comparison of the pleasing structure and uniqueness present in the post-test drawings of Group A as compared to those of Group B, to find any difference between the groups after differing instructional treatment.

3. A comparison of the beginning hesitancy and later stopping displayed by one group as compared to the other group, to show work-pattern in the post-test.

4. A comparison of interest levels expressed by individuals of the two groups in the post-test.

5. A comparison of the satisfaction feelings of individuals in the two groups with their drawing made in the post-test.

6. A comparison between the groups of the individuals' feelings of satisfaction with the post-test process of drawing.

7. A comparison of teacher behavior in Group A and in Group B, for purpose of control.

Session Procedures

Session 1

Session 1 was the pre-test session. The following procedures were used for both groups. The teacher did not explain, demonstrate, nor show how to draw. (The teacher's script used in Session 1 is Appendix A.)

1. Check attendance (3 minutes)
2. Introduce visiting teacher (1 minute)
3. Distribute materials (3 minutes)
4. Motivational discussion (6 minutes)
5. Place model (1 minute)
6. General directions (1 minute)
7. Draw (30 minutes)
8. Collect and clean up (5 minutes)

Sessions 2 and 3

In Sessions 2 and 3, Group A experienced the directed method of instruction and Group B had permissive instruction. The teaching procedures were as follows. (For teaching script see Appendices B, C, and D.)

1. Check attendance (3 minutes)
2. Distribute materials (3 minutes)
3. Place model (1 minute)
4. Motivational discussion (2 minutes)
5. General directions (1 minute)
6. Draw (35 minutes)
7. Collect and clean up (5 minutes)

Session 4

In Session 4, the post-test session, the procedures for both groups were the same. The teacher did not show how to draw. (See Appendix E for teacher's script.)

1. Check attendance; instruct and station student observers (3 minutes)
2. Distribute materials (2 minutes)
3. Make name cards (2 minutes)
4. Place model (1 minute)
5. Motivational discussion (1 minute)
6. General directions (1 minute)
7. Draw (29 minutes)
8. Complete questionnaire (3 minutes)
9. Collect and clean up (3 minutes)
10. Show portrait examples (4 minutes)
11. Parting words (1 minute)

Data-Collecting Instruments

A search for standardized art tests which could be used in the experiment revealed that there were few standardized art tests.

Art tests were of two kinds: (1) tests of artistic appreciation and (2) tests of creative artistic ability. Tests of art appreciation asked the subjects to choose between two or more variants of the same object. One variant was preferred by the majority of a group of art experts. In the graphic arts, appreciation did not require productive skills, so tests of art appreciation had a broader application than had tests of production. Productive skills were more dependent upon specific training than was appreciation.

In the study it was necessary to measure productive or creative artistic ability. Were the two groups equal in creative artistic ability to draw front-view portraits at the beginning of the experiment? How did the products of the creative artistic ability of the two groups compare after differing instructional treatment?

Examination of descriptions of art tests of creative artistic ability yielded information as to the contents of only two tests designed for high-school level students.[7] The tests were lengthy and difficult to score. It was thought that for purpose of conducting the entire experiment in only four regular class periods for each of the two groups, and for using normal classroom situations, that these tests were not suitable for the experiment. It was decided that the use of simple rating criteria, based on art elements and principles and applied by a jury of artist-teachers,

---

[7] The Lowerenz Test in Fundamental Abilities in Visual Art was nine tests in three parts; each part took thirty-five minutes to administer. The Knauber Art Ability Test required three hours to administer; it consisted of seventeen sub-tests or problems; it was difficult to score.

would be devised for use in the experiment. Therefore, the Chart for Judging Pleasing Structure and the Check Chart for Identifying Uniqueness were designed. Both instruments were validated by three artist-teachers who used them to judge the same set of twelve drawings. Suggestions of the judges were used to improve the instruments which were subsequently used in the experiment. Descriptions of the instruments and scoring procedures follow.

The Chart for Judging Pleasing Structure (see Appendix F) was used by each of three judges working alone to evaluate the drawings made in the pre-test and in the post-test of both groups. The chart contained directions for its use. In order to have uniformity of criteria in judging, the chart listed six art principles on which each drawing was judged and rated "below average" or "average or better." If the total "average or better" checks for a picture was three or more, the picture was evaluated "average or better" by that judge. The picture evaluations by the three judges were averaged for each picture to get the composite evaluation of the picture. Thus, when two or three judges rated a picture as "average or better" on three or more of the criteria art principles, the picture was judged "average or better" for the experiment.

Pictures by Group A were displayed together and pictures by Group B were displayed together for judging. Each judge worked alone. He used one chart for Group A and one chart for Group B in the pre-test and a separate chart for each of the groups in the post-test. About one-half minute was required to judge each drawing.

The Check Chart for Identifying Uniqueness (see Appendix G) was used for the judges to systematically record the location of unique details, styles, or techniques discerned on the drawings. Directions were printed on the chart. Each judge worked alone using one check chart for each group for the pre-test and one check chart for each group in the post-test. The chart listed art elements horizontally and parts of the portrait drawing vertically. Each picture had an identifying number. When a judge found something unique in a drawing he put the identifying number of that picture in the appropriate box on the chart. The total number of unique details identified by the three judges were averaged for each group of pictures.

Three additional data-collecting instruments were designed for and used in the experiment. A description of them and their purpose follows.

The Record of Time When Subject Is Not Actively Drawing (see Appendix H) was used during the post-test session by each of the observers of the subjects while drawing. The name of each subject was written on a card in front of the subject. From the card the observer wrote the names of the subjects assigned to him on his chart. The observer was instructed previously by the experimental teacher. The observer filled in the appropriate spaces on the chart by observing the subjects and the large wall clock which had a second-hand. Beginning hesitancies, later stops, and minutes lost were noted for each subject. The percentage of each group who hesitated and stopped and the average number of minutes thus lost in each group were compared.

The Questionnaire (see Appendix I) was distributed at the end of the drawing time in the post-test session. The subjects were instructed to answer three questions by encircling a letter to the left of one of five answers listed after each question. The percentages of the number of respondents selecting each answer were compared.

Control of Experimental Teacher

The Check Sheet for Observing the Experimental Teacher's Behavior (see Appendix J) was used in each session by the observing teacher to rate the teacher image projected by the experimental teacher during each session. The chart contained directions for use. There were six teacher characteristics listed vertically. The ratings of 4, 3, 2, 1, 0 were placed horizontally at the top of the columns. A rating of "4" was the best rating. At the end of each session the observer placed a check for each of the characteristics in the appropriate rating column. To score the chart, the checks in each column were totaled and multiplied by the rating for the column. The totals of all the columns were added and the sum divided by six to get the teacher image score for the session.

The "Instructional Method" section at the bottom of the sheet provided a place for the observer to record specific instances for the use of the directed or the permissive method. Notations were later scrutinized to find any inappropriate use of method.

The tabulation of the teacher image scores and notation of use of method resulted in the data shown in Table 1.

TABLE 1

OBSERVED EXPERIMENTAL TEACHER BEHAVIOR

Period Observed	Teacher Image Score	
	Directed Group	Permissive Group
Session 1	3.33	3.67
Session 2	3.33	3.33
Session 3	3.33	3.00*
Session 4	3.50	3.50
Average	3.37	3.37

*Experimental teacher answered one question using inappropriate method.

Table 1 showed the rating of the experimental teacher on six criteria of teacher characteristics. He had an average rating score in each group of 3.37 of a possible 4.00. The observer noted one instance in which the experimental teacher used the inappropriate method. These results indicated that the teacher image and the use of prescribed method was approximately constant for the experiment. Any difference between the groups after treatment by differing instructional methods could not be credited to variation in the teacher image or to use of inappropriate method.

Summary

A carefully controlled experiment was performed in four sessions in which twenty-one high-school students were taught to draw portraits. Two instructional methods were used where setting, drawing problem, and length of art period approximated normal classroom conditions. The criteria to measure the outcome of

instruction included the artistic quality of the drawings; the observed work patterns of the subjects; and the interest level and feeling of satisfaction with the drawings and the process of drawing as indicated by the subjects.

CHAPTER FOUR

THE DATA

The experiment yielded data in three major areas in which the two groups were compared: (1) artistic quality of the drawings, determined by both pleasing structure and uniqueness; (2) work patterns of the students; and (3) interest level and satisfaction of the students. A presentation and analysis of the data in each area follow.

Artistic Quality

Three judges rated the pre-test and the post-test drawings of both groups, using the Chart for Judging Pleasing Structure. Tabulations of the judging of pleasing structure are in Appendix K. Table 2 shows the results of the judging.

The data in Table 2 showed that at the beginning of the experiment the judges rated three pictures in each group, or 27.3 percent of the directed group and 30 percent of the permissive groups as having "average or better" pleasing structure. Eight pictures, or 72.7 percent of the directed group's pictures, and seven, or 70 percent of the permissive group's pictures, were judged to be "below average" in pleasing structure. This indicated that the two groups were of approximately the same ability to draw front-view portraits at the beginning of the experiment.

TABLE 2

COMPARISON OF PLEASING STRUCTURE OF PRE-TEST AND POST-TEST DRAWINGS OF TWO GROUPS

Picture Rating	Pre-Test				Post-Test			
	Directed		Permissive		Directed		Permissive	
	No.	%	No.	%	No.	%	No.	%
"Average and Better"	3	27.3%	3	30.0%	6	54.6%	3	30.0%
"Below Average"	8	72.7%	7	70.0%	5	45.4%	7	70.0%
Total	11	100.0%	10	100.0%	11	100.0%	10	100.0%

The same judges rated pictures made by each group in the post-test after the two groups had been treated two times by different instructional methods. Table 2 showed that six pictures or 54.6 percent of the directed group, and three pictures or 30 percent of the permissive group were rated "average or better" by the judges in the post-test. This indicated that after treatment by the directed method the number of students who drew pictures rated "average and better" was 100 percent greater than in the pre-test; after treatment by the permissive method of instruction, the number of students who drew pictures rated "average and better" was the same as before instructional treatment.

The judges used the Check Chart for Identifying Uniqueness to record systematically the location of details, styles, or techniques identified as unique because that item appeared three times or less

in a group of drawings. The drawings of each group were displayed and judged separately for both the pre-test and the post-test. Tabulations of items judged unique appear in Appendix L. The results of the judging are shown in Table 3.

TABLE 3

COMPARED PRE-TEST AND POST-TEST UNIQUENESS OF DRAWINGS OF TWO GROUPS

Unique Items	Pre-Test		Post-Test	
	Directed	Permissive	Directed	Permissive
Average number	19.0	25.0	26.7	16.3

Table 3 showed that the average number of unique items identified in the pre-test was nineteen for the directed group and twenty-five for the permissive group. This seemed to indicate that at the beginning the group that was to be treated permissively was slightly superior to the other group in ability to draw unique drawings. After two treatments by different instructional methods, the positions of the two groups in respect to uniqueness of drawings had been reversed. In the post-test the judges identified an average of 26.7 unique items in the directed group's drawings and 16.3 unique items in the permissive group's drawings. After instructional treatment, the directed group appeared to increase in ability to draw uniquely, and the permissive group appeared to decrease in this ability.

Work Patterns of the Students

Each subject was observed while drawing in the post-test. The observer used the Record of Time When Subject Is Not Actively Drawing to make notations as to when the student appeared to stop working. It was thought that the subject's attitude of confidence might be indicated by the hesitation or stopping. A tabulation of beginning hesitancy and later stops is in Appendix M. The results of the observations of the work patterns appear in Table 4.

TABLE 4

COMPARISON OF POST-TEST HESITANCY AND STOPS OF TWO GROUPS

Subject's Action	Directed		Permissive	
	No.	%	No.	%
Did not hesitate	8	72.7%	6	60.0%
Hesitated	3	27.3%	4	40.0%
Total	11	100.0%	10	100.0%
Did not stop	2	18.2%	1	10.0%
Stopped only one time	1	9.1%	2	20.0%
Stopped two times	0	0.0%	5	50.0%
Stopped three times	4	36.3%	1	10.0%
Stopped four times	0	0.0%	1	10.0%
Stopped more times	4	36.4%	0	0.0%
Total	11	100.0%	10	100.0%
Average time hesitated	1.3 Minutes		1.8 Minutes	
Average time each stop	1.0 Minutes		1.5 Minutes	

Table 4 showed that four subjects or 40 percent of the permissive group, as compared to three subjects or 27.3 percent of

the directed group, had beginning hesitancy. During drawing, approximately the same percentage of subjects in each group did not stop or stopped only one time, three subjects or 27.3 percent in the directed group and three subjects or 30 percent of the permissive group. Three subjects or 27.3 percent of the directed group and eight subjects or 80 percent of the permissive group stopped two times or less. Eight, or 72.7 percent, of the directed subjects stopped three times or more, while two permissive subjects, or 20 percent, stopped three times or more. Average length of hesitation time in the directed group was 1.3 minutes as compared to 1.8 minutes in the permissive group. Average time for each stop was 1.0 minutes in the directed group and 1.5 minutes in the other group.

Data in Table 4 indicated that there was a little more tendency of subjects in the permissive group to hesitate before beginning to draw. There was no appreciable difference in the proportion of subjects who, during drawing, did not stop or stopped only once; about one-third in each group did so. Most of the permissive group stopped two times or less; most of the directed group stopped three times or more. Subjects in the permissive group hesitated and stopped longer, on the average, than did those of the directed group who hesitated or stopped.

The patterns of work for the two groups were similar in that approximately two-thirds of both groups began to work immediately after being told to do so. The patterns were dissimilar in that most subjects who had experienced permissive instruction stopped only two or less times during drawing, while most of the directed subjects stopped three or more times during drawing. Another

difference was that the average time hesitated or stopped was longer in the permissive than in the directed group.

The differences may have suggested that subjects who had been permissively instructed had developed confidence and skill in devising their own way of drawing a portrait, and that during the longer pause they were evaluating the drawing and were planning how to proceed further. On the other hand, the directed group may have been pausing to evaluate the drawing and were trying to recall the drawing procedures previously demonstrated by the teacher. The more frequent stopping in the directed group may have been a result of conditioning to stop between drawing various parts of the portrait, for the teacher had demonstrated one step at a time and had waited for all of the group to execute each step before going on. One could not reasonably make any assumptions concerning the cause of this difference.

Interest and Satisfaction of Subjects

The Questionnaire was completed by all subjects after the completion of the drawings in the fourth session. The name of the subject did not appear on the questionnaire, so questionnaires of three subjects present for only one of the treatment sessions (see Appendix N) could not be identified for removal. Therefore, N=14 was used for the permissive group. A tabulation of questionnaire items appears in Appendix O.

Table 5 indicates that approximately the same percentage of subjects in each group wanted to draw the portrait in the fourth session, 60 percent in the directed group and 57.1 percent in the permissive group. Approximately the same percentage in both groups

did not want to draw the portrait, 30 percent in the directed group and 28.5 percent in the permissive group.

TABLE 5

COMPARISON OF STUDENT INTEREST AND SATISFACTION

Student Feeling	Directed		Permissive	
	No.	%	No.	%
Wanted to draw	6	60.0%	8	57.1%
Did not want to draw	3	30.0%	4	28.6%
Some other feeling	1	10.0%	2	14.3%
Total	10	100.0%	14	100.0%
Liked to draw	7	70.0%	11	78.6%
Did not like to draw	1	10.0%	1	7.1%
Some other feeling	2	20.0%	2	14.2%
Total	10	100.0%	14	100.0%
Liked his drawing	3	30.0%	6	42.9%
Did not like his drawing	5	50.0%	5	35.7%
Some other feeling	2	20.0%	3	21.4%
Total	10	100.0%	14	100.0%

Positive feelings increased in both groups during the process of drawing, but increased the most in the permissive group. The directed group had seven subjects or 70 percent of the group, and the permissive group had eleven subjects or 78.6 percent of the group who indicated that they liked the process of drawing in the fourth session. Negative feelings decreased in both groups during the process of drawing. In the directed group one person or 7.1 percent expressed feelings of dislike for the process of drawing.

Feelings about the product were more negative than affirmative in the directed group, for five subjects or 50 percent did not like their drawings and three subjects or 30 percent liked their drawings. In the permissive group a slightly larger percentage of students liked their drawings than disliked them. Six persons, or nearly 43 percent, indicated that they liked their drawings while five persons, or almost 36 percent, did not like their drawings. A larger percentage of subjects of the permissive group than of the directed group liked their drawings in the post-test, 42.9 percent in the permissive group and 30 percent in the directed group. Dislike for their drawings was expressed by 50 percent of the directed group and by 35.7 percent of the permissive group.

Summary

The data were gathered through measurements taken in the pre-test and post-test of two groups of subjects who were treated by two instructional methods. The data were expressed in percentages which were compared in four tables.

The two groups were about equal in ability to draw a portrait with pleasing structure when the experiment began. After the application of different instructional treatment the directed group had improved substantially in drawing a portrait with pleasing structure; the permissive group remained the same in this respect as it was at the beginning.

The permissive group drew with considerably more evidence of uniqueness than did the directed group at the beginning of the experiment. After the application of the instructional treatment,

the directed group showed substantially more evidence of uniqueness in drawing portraits than did the permissive group.

The work patterns of the two groups were similar. But, subjects in the directed group stopped slightly more often than did the subjects in the permissive group. The stops in the directed group averaged about two-thirds as long as the stops made by the permissive group.

Interest in drawing the portrait was about the same in both groups after instructional treatment. More than half of the students in each group wanted to draw; less than a third of the students in each group did not want to draw. More people in the directed group disliked their drawing than liked it. In the permissive group the reverse was true; more people liked their drawing than disliked it. There was no difference in feelings about the process of drawing. They were strongly affirmative in both groups after being treated by differing instructional methods. Few people in either group did not like the process of drawing.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The problem in this study involved an investigation to find possible differences after groups of high-school students had been subjected to different instructional methods or teaching behaviors.

Two groups of high-schcol students were exposed to two sessions each of differing methods of teaching portrait drawing. One group of eleven students were taught by a directed step-by-step demonstrated instructional method, and the other group of ten students were taught by a permissive method in which no directions were given as to how to draw the posed model.

The groups were pre-tested for artistic quality of their drawings, as judged by a jury, before having the instructional treatment. The subjects were post-tested for artistic quality of their drawings as judged by the jury; observed for amount of beginning hesitancy and stopping; and questioned as to desire to draw, satisfaction in the process, and satisfaction with the product. The teacher was observed for consistency of attitude and adherence to method.

The experiment was conducted within a four-week period with a session each week for each group during the regular art class period of the groups and in their regular art classroom.

In order to determine if there appeared to be any difference between the groups before and after the instructional methods were experienced, the data collected were analyzed by comparing percentages.

Conclusions

The results of the analysis of data warranted the following conclusions. They were applicable only to answering underlying questions in this study about two methods of teaching General Art I in an urban high school in Kentucky. The conclusions were given in the three areas in which the questions were asked:

1. Artistic quality of the drawings

a. The pleasing structure of drawings produced by students increased after the directed method of instruction was used. The pleasing structure of drawings made by students after treatment by permissive instruction remained the same as it was before instruction.

b. Students' use of details judged unique increased after students were instructed by the directed method. After permissive instruction there were less unique details in drawings than in drawings made before instructional treatment.

2. Work patterns displayed by the students

a. There was about the same amount of beginning hesitancy after students were instructed by either method. About one-third of the students hesitated before beginning to draw. Students taught by the permissive method hesitated longer than did those taught by the directed method.

b. Students who had been taught by the directed method stopped more often during drawing than did those who were permissively instructed. The permissive students stopped longer than did the directed students.

3. Interest level and satisfaction of the students

a. Interest level of students to draw portraits was high after both instructional methods were experienced. Twice as many students wanted to draw portraits as students who did not want to draw them.

b. Most students taught by either method liked the process of drawing the portrait, but a slightly larger percentage taught by the permissive method liked it.

c. There was a difference in the expressed satisfaction of the student with his product after one or the other instructional methods had been experienced. More of the directed students were dissatisfied and fewer were satisfied with their products. More of the permissively taught students were satisfied than were dissatisfied with their products.

Recommendations

The study showed that, without disturbing the regular classroom situation, the micro-criteria approach could be employed by the art teacher to investigate a small definite area of the relation of the teaching role to the behavior of students, and to reach some substantiated conclusions. During the course of the investigation certain questions arose beyond the scope of the study.

It was thought that further study might reveal some answers to the following questions:

1. Would replication of the investigation produce similar findings?

2. Would replication of the investigation using another problem in art and using other media produce similar findings?

3. What findings would investigation of other instructional methods produce?

4. Could a valid and reliable measuring instrument for easy measurement artistic quality of art objects be developed?

It was recommended that a study to find answers to these questions would be a worthy contribution by art educators of Western Kentucky University.

It was also recommended that, in the event of studies being made to answer the proposed questions, the findings be published for the use of art teachers.

APPENDICES

APPENDIX A

TEACHER'S SCRIPT USED IN SESSION ONE

Both Groups

I will be instructing you in portrait drawing for four art periods. That is, one period a week, on Wednesday mornings, for four consecutive weeks beginning today.

Before we start to draw, let us do a little thinking and discussing so that we all can have opportunity to ask any questions and be sure about what we are doing.

To do drawing involves peculiar and almost unbelievable processes going on in you and in me. I am making sounds called words. They are verbal symbols which mean approximately the same to you and to me. Your ears receive the sounds and transmit them to your brain. Your brain makes a decision and sends orders for a response. Right now your brain is ordering your body to wait and listen for more verbal symbols before acting. Our eyes, also, are sending messages to our brains. Right now most of your eyes are sending messages about me to your brains.

I ask you now to focus your attention on this model. Your eyes are picking up information about how the model looks and are sending it to the brain. My next direction to you is to record how the model looks on the drawing paper. This is drawing. You are making a symbol of this model. You will draw something which expresses the model. You will try to draw so that someone looking at the drawing will know from it something about the model.

We are going to do portrait drawing (write Portrait Drawing on blackboard). What is a portrait? Who will give us a definition? How does the dictionary define it? A portrait is a picture of a person usually showing the face.

So, according to this definition, we must see the face. Here is the model. We can see some of his face from the side, part side and part front, or all front, depending upon our position in relation to his position. In these four classes on portrait drawing we will draw only front-view portraits. We will all draw the portraits as though each one of us were directly in front of the model. We will do front-view portrait drawing (write Front-view on the blackboard).

During these four weeks when I will be teaching you front-view portrait drawing I want you to be looking for front-view portraits and I want you to be making drawings of people's faces. Get members of your family or get your friends to pose for you. Try to make drawings which express your models. Bring in your drawings. I will be asking you next week to show what you have been doing. And, I will want to know if you have seen front-view portraits in books, magazines, or hanging on walls.

Today, I want you to draw a front-view portrait of this model. Your ears have been receiving and sending to the brain these spoken word symbols. Now your eyes are receiving and sending to your brain visual information. Your brain combines this information with knowledge from its files and sends directions to your hand as to how to make a symbol on the paper. The brain will keep evaluating and trying to get satisfied with the front-view portrait symbol your hand is trying to make on the paper. No matter what your symbol is like when it is finished, you will be surprised by what you make, for you have never made this picture before. Each picture that you will make will be a new and surprising experience.

General Directions for All Sessions

Now, please letter your name, the date, and class period at the bottom of the paper. Now begin to draw. This is a large paper. Please draw large upon it. Draw with crayons. If you should spoil your drawing, get a new paper from the pile and leave the old drawing beside the pile. You will have _____ minutes to make the drawing.

APPENDIX B

TEACHER'S SCRIPT USED IN SESSION TWO

Both Groups

Today we will draw our second front-view portrait. We have a different model today. I have looked at all of the portraits which you drew last week. Some of them looked like or expressed the model very well. Others did not express him much. But, I enjoyed looking at all of your drawings. I was surprised in seeing what interesting drawings you were able to make.

You will find it easier to draw today because you have had experience in drawing at least one front-view portrait. Some of you may have been practicing. Will you raise your hand if you drew two or more portraits since last week. Raise your hand if you drew one portrait since last week. I want to see your drawings. Please place them on the teacher's desk so that I may look at them. Has anyone seen any front-view portraits since last week? Where?

Here is our model for today's drawing. How is this model like the one which we drew last week? How is this model different from the one we drew last week?

(Give general directions and begin drawing in permissive group.)

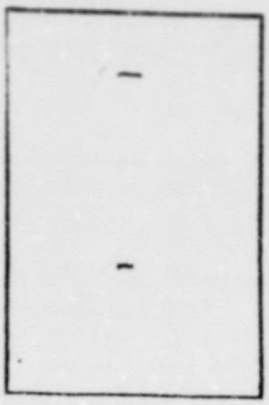
Directed Group

Today I will draw the front-view portrait of the model with you. I will demonstrate a method of drawing it. I want you to draw as I draw and to follow directions. We will try to make our drawings look like the model. But, even if our drawing fails to resemble the model, it will be natural-looking front-view drawing of a person.

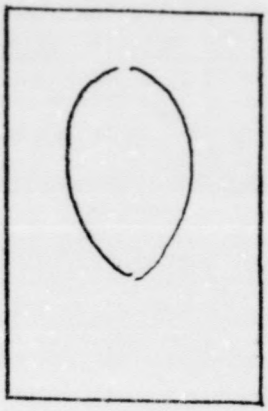
(Demonstrate Wittman Portrait Method shown in Appendix C.)

APPENDIX C

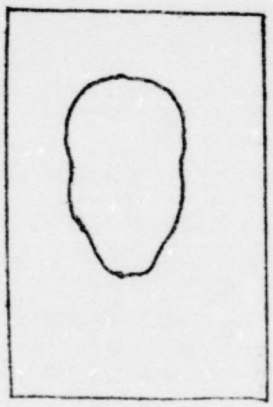
WITTMAN PORTRAIT METHOD



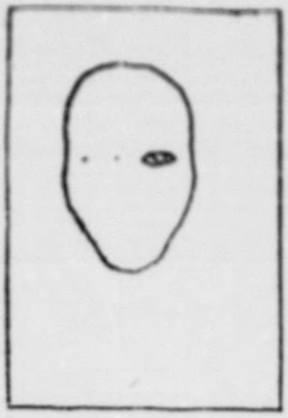
1. Observe the shape of the head. It is like a football or large egg. Make a light mark showing where the top of the head will be on your paper and a light mark showing where the bottom of the head shape will be on your paper.



2. Carefully draw a light outline of the head shape. Begin at middle top and draw to chin on right side. Then begin at middle top and draw to chin on left side. This is the shape of the head without hair.

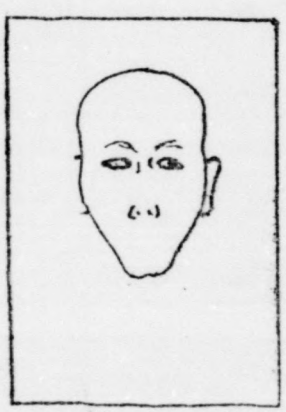


3. Check the model's face. See if you can get the outline to more closely resemble the shape of the model's face.

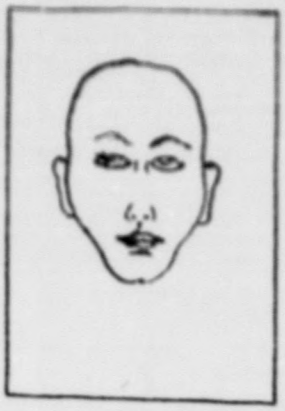


4. All of the features on the model's face express something about him, but the eyes are possibly the most interesting and expressive features. They can express liveliness, sleepiness, anger, pain, old age, youth, attentiveness, dreaminess, etc. They are large, small, slanted, blue, brown, etc. They may be close together, far apart, not the same size. So, observe them carefully. First, where are they located? About halfway down on the head. So, about halfway down on the egg-shape draw a light line across the egg with our crayon (orange or brown). What is the shape of the eye? It is like a little football. Observe the length of the little footballs. Would they fit across the face five times? Mark light dots where the ends of the eyes will be. Draw in the shape of the eyes carefully. We know that the eyeball is round and the iris is round. But, notice that the eyelid comfortably and partially covers the eyeball and the iris so that we see the iris as a half circle. Just the pupil in the center of the eye is round. Observe and copy the crease in the eyelid, the eyelashes, and the eyebrows using brown or black crayon. Color the iris.

5. Observe the location of the bottom of the nose. Is it halfway between the eyes and the bottom of the chin? Draw a light orange line there. How shall we draw the nose? About all we can see from the front are two very dark nose holes and two curves of the outside edge of the nostrils. There are possibly two other lines showing the sides of the nose between the eyes. Draw the nostril lines, the shape of the nose holes, and nose lines between the eyes lightly with brown crayon. Color the nose holes brown.



6. Where are the ears located? Usually they are on a line with the bottom of the nose and the middle of the eyes. Observe and make light marks on the sides of the head showing the location of the top and bottom of the ears. Draw the shape of the ears with your orange or brown crayon.

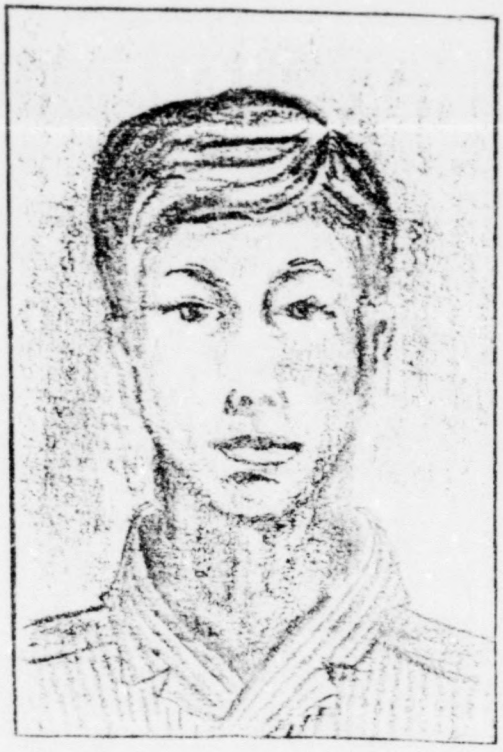


7. Observe the location of the line between the lips of the closed mouth. Is it located about halfway from the bottom of the nose to the bottom of the chin? Draw a light line there with the orange or brown crayon. The mouth can be expressive for it is capable of movement. Also, mouths come in different sizes and shapes. So, observe it carefully as a means of expressing your model. First, look at the middle line. It is not exactly straight. Draw it rather dark with the brown. Then look at the shape of the upper lip. Look at the shape of the lower lip. Draw these shapes lightly with the brown. Are there little vertical lines between the bottom of the nose and the upper lip? Is there a curved line below the lower lip? Indicate these details with light brown lines.

8. How wide is the neck? Is it as wide as the face? Observe and draw the shape of the neck. Draw the shape of the shoulders and details of clothing.

9. So far, this is a bald head. Observe the shape of the hairline around the edges of the face. Draw this shape in lightly with the crayon that is most nearly the color of most of the hair. Draw lines locating any parts combed in the hair and draw the shape of any ornaments in it. Draw the texture of the hair by drawing crayon lines in the direction and pattern in which the hair lays or is combed.

10. We will now try to make the picture of the model look rounded or three-dimensional. We will do this by the use of plastic recession. This merely means to darken the forms as they move further away and lighten the forms that are nearer to you. Thus, since the neck is further away from you than is the face, you will shade the whole neck darker than the face, and shade the sides of the neck darkest. Use your brown crayon on its side to do this so you can get a smooth blending and gradation of shading. Shade the sides of the face darker than the middle of the face, and make the nose lightest of all because it comes forward. The edges of the lips come forward. Some areas are dark because the light is shut off. Shade under the nose, shade in the hollows around the eyes, shade the upper lip as it turns under, shade in the ears. The mass of the hair should be darkened as it recedes and as it turns under. The mass of the shoulders should be darkened as it recedes.



11. So far, the picture is beginning to look like a portrait of a human being, but it is not colorful. Now use the crayons you have to express the model in color. Apply the skin color smoothly. For the skin color of a white person use the orange crayon lightly. For the skin color of a dark-complected person use the brown crayon lightly. Do you see some red color in the face and lips? Use the red crayon lightly and smoothly on the cheeks, lips, nose, forehead, ears, or wherever you see pink (light red) color on the model's skin. Study the hair color carefully. There will be several colors there. Use these colors in the drawing of the hair. Try to copy the pattern and color of the details of the clothing. What colors could you use in the background and what things or shapes could you draw in the background to express the model?

APPENDIX D

TEACHER'S SCRIPT USED IN SESSION THREE

Both Groups

Today we will draw our third front-view portrait. How many of you have seen a front-view portrait this week? Did it look like the portraits which you drew in class? How many of you drew portraits outside of class during this past week? Did your portraits look like your model?

I have compared the portraits which you drew in the first session with those which you drew in the second session. Your second drawings were better. In them you expressed the model better, the crayon was applied heavier, more kinds of texture was used, the drawings were larger, some parts of the drawing went off the edge of the paper, the backgrounds were more interesting. Try to make a better picture today. Make the face the most interesting part of the picture.

Some questions to think about are:

1. Has man always made portraits? In looking in art history I found that portrait drawings were not made much before the Renaissance or the time of Christopher Columbus. Since then portraits have been made frequently.

2. Why did man make portraits? A portrait recorded how someone looked. It was a status symbol to have portraits of oneself, one's family, or one's ancestors, for this was an indication of importance, security, wealth.

3. Why does man still make portraits? The reasons are still the same. The invention of photography provided a quick way to make a portrait, but there is still a need for unique and pleasing hand-drawn portraits.

(Give general directions and begin drawing in permissive group. Demonstrate Wittman Portrait Method in directed group.)

APPENDIX E

TEACHER'S SCRIPT USED IN SESSION FOUR

Both Groups

Today we will draw our fourth and last front-view portrait. In each of the drawings already made, you have shown improvement in your ability to draw an expressive portrait of the model. I am expecting each of you to make an excellent drawing today. Practice in observing the model and recording what you see helps you to draw faster, better, and more confidently than you did before.

Make this your crowning achievement as a front-view portrait drawing. Make it a good expression of the model and a pleasing picture.

(Repeat general directions.)

APPENDIX F

CHART FOR JUDGING PLEASING STRUCTURE
Judge No.____Session____Group_____

Directions: Analyze and evaluate each picture for use of six art principles. Make a check in the appropriate rectangle under each principle for each picture.

Identifying Number of Picture	Emphasis		Balance		Variety		Repetition		Contrast		Unity		Picture has three or more Av. and Better
	Below Av.	Av. & Better	Below Av.	Av. & Better	Below Av.	Av. & Better	Below Av.	Av. & Better	Below Av.	Av. & Better	Below Av.	Av. & Better	

APPENDIX G

CHECK CHART FOR IDENTIFYING UNIQUENESS
Judge No.____Session___Group____

Directions:

1. Each picture has an identifying number. Each judge works alone.
2. Display pictures so all can be viewed at one time.
3. Look at tyes on all of the pictures. If any unusual style of rendering this item is noted, see how many times this unusual style appears in all of the drawings. If it appears three times or less, place the identifying number of the drawing or drawings on which it appears in the appropriate rectangle. If more than one number is put down, draw a circle around the numbers that identify the same unique rendering in two or three pictures.
4. Go through the above process for each of the remaining eight items on the chart.

Location of Uniqueness in Picture	Art Element Used Uniquely				
	Line	Shape	Value	Color	Texture
1. Eyes					
2. Nose					
3. Mouth					
4. Ears					
5. Neck					
6. Hair					
7. Clothing					
8. Background					
9. Face					

APPENDIX H

RECORD OF TIME WHEN SUBJECT IS NOT ACTIVELY DRAWING

Observer_____Session___Period___Date_____

Name of Subject	Beginning Hesitation			Work Stops											
				First		Second		Third		Fourth		More Than Four	Total Stops	Total Minutes Stopped
	Told to Begin	Began	Mins. Lost	Stop	Start	Stop	Start	Stop	Start	Stop	Start			

APPENDIX I

QUESTIONNAIRE

Please answer three questions. Draw a circle around the letter beside the answer which most nearly describes how you feel or felt about the drawing you did today.

1. How did you feel when you began the drawing today?
   a. I wanted very much to make the drawing.
   b. I wanted a little to make the drawing.
   c. I slightly didn't want to make the drawing.
   d. I hated to make the drawing.
   e. Some other feeling. What feeling?_____

2. How did you feel while you were making the drawing?
   a. It was a lot of fun.
   b. It was a little interesting.
   c. It was boring.
   d. I hated to make the drawing.
   e. Some other feeling. What feeling?_____

3. How do you feel about the drawing you made today?
   a. I like my drawing very much.
   b. I like my drawing a little.
   c. I am a little disappointed in my drawing.
   d. I dislike my drawing very much.
   e. Some other feeling. What feeling?_____

APPENDIX J

CHECK SHEET FOR OBSERVING EXPERIMENTAL TEACHER'S BEHAVIOR

Observer_____Session___Period___Date___School___

Teacher Image Rating

Direction: Place x in one square after each characteristic.

	Rating				
	4	3	2	1	0
Teacher Characteristic	Superior	Above Av.	Average	Poor	None
Enthusiasm					
Pleasing facial expression					
Attentive to all students					
Prepared and confident					
Attractive appearance					
Speaks clearly					

Total _____

$\frac{\text{Total}}{6}$=Rating score

Use of Prescribed Method

When a student asked how to draw something, what did the teacher do? (Mark x to the left of (a) or (b) each time this occurs.)

_____(a). The teacher told the student to look at the _____ model and decide how to draw it.

_____(b). The teacher explained or demonstrated how to _____ draw it.

APPENDIX K

TABULATION OF JUDGING OF PLEASING STRUCTURE

Subject	Pre-Test: Judged "Av. & Better" by Picture	Judge 1	Judge 2	Judge 3	2 or 3 judges	Post-Test: Judged "Av. & Better" by Picture	Judge 1	Judge 2	Judge 3	2 or 3 judges
Directed Group										
G. Adams	No. 2	x				No. 11	x	x	x	1
G. Callaway	No. 6					No. 1	x			
B. Daniel	No. 10	x	x	x	1	No. 2	x	x		1
P. George	No. 9					No. 3	x	x		1
D. Mann	No. 4		x	x	1	No. 10	x			
Do. Mann	No. 3					No. 6		x		
J. Martin	No. 12	x		x	1	No. 9	x	x		1
M. Melton	No. 8					No. 4	x			
E. Phelps	No. 5	x				No. 5	x	x	x	1
W. Rickey	No. 1			x		No. 8	x	x	x	1
B. Toups	No. 11	x				No. 7	x			
				Total=3					Total=6	
Permissive Group										
M. Allen	No. 6	x				No. 2				
G. Bryant	No. 13					No. 9				
C. Dawson	No. 9					No. 10				
D. Klusmeier	No. 7					No. 3				
R. Merideth	No. 10					No. 13				
J. Mews	No. 2	x	x	x	1	No. 7	x	x	x	1
M. Ragland	No. 8	x		x	1	No. 4	x			
D. Riffer	No. 11					No. 11	x	x	x	1
J. Sprowl	No. 1					No. 8	x			
V. Walker	No. 3	x	x	x	1	No. 12	x	x	x	1
				Total=3					Total=3	

APPENDIX L

TABULATION OF JUDGING OF "UNIQUENESS"

	Number of Items Judged "Unique"			
	Directed		Permissive	
	Pre-Test	Post-Test	Pre-Test	Post-Test
Judge 1	41	28	43	23
Judge 2	11	48	19	22
Judge 3	5	4	13	4
Total	57	80	75	49
Average	19	26.67	25	16.33

APPENDIX M

TABULATION OF HESITANCY AND STOPS IN POST-TEST

Subject	Begin. Hesit. Mins.	Mins. in Later Stops 1	2	3	4	Over 4 Stops	No. of Stops	Total Stop Mins.	Total Mins. Lost
Directed Group (N=11)									
G. A.	x1	x1	x2	x0	x2	x	5	5	6
G. C.	x2	x1	x0	x1	x1	x	5	3	5
B. D.		x2					1	2	2
P. G.									
D. M.	x1	x0	x11	x0			3	11	12
Do.M.		x0	x1	x0	x0	x	5	1	1
J. M.		x1	x2	x1			3	4	4
M. M.									
E. P.		x1	x1	x1			3	3	3
W. R.		x0	x0	x1	x1	x	5	2	2
B. T.		x0	x0	x0			3		
	Total 3	9	8	8	4	4	33	31	35
Permissive Group (N=10)									
M. A.		x2	x1				2	3	3
G. B.	x3	x1	x1				2	2	5
C. D.		x1	x1				2	2	2
D. K.	x1	x4	x1				2	5	6
J. M.		x1	x2	x2			3	5	5
R. M.		x1					1	1	1
M. R.	x2	x2	x2				2	4	4
D. R.									
J. S.	x1	x1	x1	x1	x1		4	4	5
V. W.		x2					1	2	2
	Total 4	9	7	2	0		19	28	33

(x) Indicated occurrence of hesitation or stop.

APPENDIX N

ATTENDANCE OF SUBJECTS AT FOUR SESSIONS

Group A	Sessions				
	1	2	3	4	
1. Gleda Adams	x	x	x	x	
2. Gary Callaway	x	x	x	x	
3. Barry Daniel	x	x	x	x	
4. Pete George	x	x	x	x	
5. David Mann	x	x	x	x	
6. Donna Mann	x	x	x	x	
7. Julia Martin	x	x	x	x	
8. Mike Melton	x	x	x	x	
9. Carmen Murphy	x	x	x		*
10. Elizabeth Phelps	x	x	x	x	
11. Wanda Rickey	x	x	x	x	
12. Becky Toups	x	x	x	x	

Group B	Sessions				
	1	2	3	4	
1. Mark Allen	x	x	x	x	
2. Ernest Alexander	x	x		x	*
3. Toni Alpe			x	x	*
4. Debbie Bailey	x	x	x		*
5. Gil Biggers	x		x	x	*
6. Georgeanna Bryant	x	x	x	x	
7. Larry Butts	x				*
8. Connie Dawson	x	x	x	x	
9. Don Klusmeier	x	x	x	x	
10. Rebecca Merideth	x	x	x	x	
11. Jeff Mews	x	x	x	x	
12. Joan Napier		x		x	*
13. Marsha Ragland	x	x	x	x	
14. Debby Riffer	x	x	x	x	
15. Jerry Sprowl	x	x	x	x	
16. Virginia Walker	x	x	x	x	

*Student was dropped from N of the study because he was not present for all four sessions.

APPENDIX O

TABULATION OF QUESTIONNAIRE ITEMS

Items	Directed		Permissive	
	No.	%	No.	%
Interest Level				
1. I wanted very much to draw	4	40.0%	7	50.0%
2. I wanted a little to draw	2	20.0%	1	7.1%
3. I slightly didn't want to	3	30.0%	3	21.4%
4. I very much didn't want to	0	00.0%	1	7.1%
5. Some other feeling	1	10.0%	2	14.3%
Total	10	100.0%	14	100.0%
Satisfaction with Process				
1. It was a lot of fun	3	30.0%	6	42.9%
2. It was a little interesting	4	40.0%	5	35.7%
3. It was boring	1	10.0%	0	00.0%
4. I hated to make the drawing	0	00.0%	1	7.1%
5. Some other feeling	2	20.0%	2	14.3%
Total	10	100.0%	14	100.0%
Satisfaction with the Product				
1. I like my drawing very much	1	10.0%	2	14.3%
2. I like my drawing a little	2	20.0%	4	28.6%
3. I am a little disappointed	3	30.0%	3	21.4%
4. I dislike my drawing very much	2	20.0%	2	14.3%
5. Some other feeling	2	20.0%	3	21.4%
Total	10	100.0%	14	100.0%

BIBLIOGRAPHY

BIBLIOGRAPHY

BOOKS

Anastasi, Anne. Psychological Testing. New York: The MacMillan Company, 1954.

Crombach, Lee J. Essentials of Psychological Testing. New York: Harper and Row, 1960.

Gage, N. L., ed. Handbook on Research on Teaching. Chicago: Rand, McNally, 1963.

Jefferson, Blanche. Teaching Art to Children. Boston, Mass.: Allyn and Bacon, Inc., 1969.

Manzella, David. Educationists and the Evisceration of the Visual Arts. Scranton, Penn.: International Textbook Company, 1963.

Saylor, J. Galen and Alexander, William M. Curriculum Planning for Modern Schools. New York: Holt, Rinehart and Winston, Inc., 1966.

ARTICLES AND JOURNALS

Barkan, Manuel. "Transition in Art Education: Changing Conceptions of Curriculum Content and Teaching Art." Art Education, XV (October, 1962), pp. 12-18, 27.

Barkan, Manuel, co-editor. "Editorial." Studies in Art Education, IX (Spring, 1968), p. 1.

Beck, Albert W. "Loss of Reason and a Lack of Structure." School Arts, LIX (October, 1969), pp. 24-5.

Beittel, Kenneth R. "Construction and Reconstruction of Teaching Methods Through Experimental Research." The Eastern Arts Association Quarterly, XIX (April, 1962), p. 54.

Brittain, W. Lambert. "An Exploratory Investigation of Early Adolescent Expression in Art." Studies in Art Education, IX (Winter, 1968), pp. 5-12.

Broudy, Harry S. "The Case for Art Education." Art Education, XIII (January, 1960), p. 8.

Clements, Robert. "Research in the Classroom." Art Education, XIX (November, 1966), p. 24.

Edmonston, Paul. "Conditions Which Enhance or Inhibit Creative Thinking and Learning." Eastern Arts Association Quarterly, XIX (April, 1962), p. 21.

Frank, Lawrence K. "Role of the Arts in Education." Studies in Art Education, I (Spring, 1960), p. 26.

Gage, N. L. "An Analytical Approach to Research on Instructional Methods." Phi Delta Kappan, LIX (June, 1968), pp. 601-6.

Hastie, Reid and Wold, Stanley G., reviewers. "Art Education." Review of Educational Research, XXXI (April, 1961), pp. 217-23.

Hausman, Jerome J., reviewer. "From Doubts to Inquiry." Review of Educational Research, XXVIII (April, 1958), 169-70.

Hoffa, Harlan. "Research Pertaining to the Teaching Role and Its Significance to Art Education." The Eastern Arts Association Quarterly, XIX (April, 1962), pp. 5-8.

Thomas, Murry R., reviewer. "Art Education." Review of Educational Research, XXXIV (April, 1964), pp. 236-248.

Torrance, Paul E. "Identifying the Creatively Gifted among Disadvantaged Children." The Education Digest, XXX (March, 1965), pp. 8-11.

Williams, Hiram. "On Teaching Art." Art Education, XXI (May, 1968), p. 6.