METHODS USED BY EDUCATORS TO FACILITATE HANDLING OF
ART MATERIALS IN ELEMENTARY CLASSROOMS

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METHODS USED BY EDUCATORS TO FACILITATE HANDLING OF
ART MATERIALS IN ELEMENTARY CLASSROOMS

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CHAPTER I

INTRODUCTION

Efficiency is a key word in modern business and industry; excellence is a key word in modern education. Efficiency experts study methods, manpower and machinery in order to provide employers with proposals that would cut costs, save time and enable employees to be more productive. Since the first Sputnik was placed in orbit, American citizens, in an effort to discover why the country seemed to be inferior in scientific and technical knowledge and skills, have been taking a more critical look toward national education. After examinations were made of school programs, "a gap between basic knowledge in some disciplines and what was being taught" seemed evident. As a result, scholars conferred with educators in revising courses of study. This reassessment of education placed emphasis on excellence, quality and content, and this resulted in phrases such as "the new mathematics," "the new biology" or "the new English."

Content has been programmed for teaching machines; master teachers present sequential lessons on many subjects

\[1\] Ralph Beelke, "Is Art Education Threatened?", School Arts, LXII (February, 1963), 16.
via television; new updated textbooks have been adopted by school boards; funds have been made available for purchasing the latest school equipment; efforts have been made to provide instruction according to ability; and teachers have received in-service training through lectures, workshops, scholarships and educational consultants.

Many think that the answer lies in teacher education. Lay critics have suggested that teachers should devote most of their college training in content courses in their major field. However, the teachers feel that they need more courses in teaching methods, so that knowledge can be imparted to their students more efficiently.1 Just as industry must have both quality materials and productive workers, so education must have a balance between content and efficient teaching methods.

I. THE PROBLEM

Statement of the problem. Elementary art activities are more efficiently experienced by teachers and students if required materials are easily handled. It was the purpose of this study to investigate methods used by

1NEA Research Division, "On Teacher Preparation," NEA Journal, LII (December, 1963), 34.
educators to facilitate the handling of art materials in elementary classrooms. Methods were suggested by publications of art experts, manufacturers of school art products, art educators in Iowa and surrounding states and elementary classroom teachers in the Des Moines area. Through the presentation of these suggested methods, it is hoped that some of the problems involved in handling many items of equipment and materials in self-contained classrooms might be less troublesome to elementary teachers and students, thereby providing more time for creative activities. Perhaps educational administrators and companies concerned with school art products can discover ways to aid the teacher in her task of providing an excellent art program.

**Importance of the study.** Every known culture has created art forms that were expressive of man's intellect and emotions. There is evidence that the United States is in the midst of a cultural explosion.

... Art centers are springing up in large cities and small towns in all parts of the country; attendance at museums is increasing; well over a thousand symphony orchestras are in existence; community theater groups and professional companies are bringing the excitement of live performances to groups in all states; many elected officials are noting that government has a responsibility for culture and are taking first steps to do something about it.

.................
The reasons for the increasing role of the arts in American life are many. The key, however, undoubtedly lies in the fact that an essential balance is being established between science and art, between technology and craft, between matters of the mind and of the spirit, between materialistic concerns and nonmaterial satisfactions. . . .

Such a basic need of man should not be neglected, especially in the education of the young. One of the responsibilities of education is to develop all facets of learning, and this can not be done without including the arts in the school curriculum. However, in an effort not to be outdone in scientific accomplishments and world-wide communication, Americans have put renewed emphasis on academic subjects such as mathematics, science and language. In order to provide time for more content and extra curriculum requirements, there have been attempts to eliminate, or at least subdue, the study of arts in public education. However, through art, man has the most personable means of communication that knows no language barriers; and businessmen, industrialists and scientists insist that the nation needs more creative minds. In fact, Albert Einstein has stated that "Imagination is more important than knowledge."\footnote{1Edwin Ziegfeld, "Paradox and Prospect," School Arts, LXII (February, 1963), 36.}

\footnote{2Nora Zveybrueck Wiedmann, "Creative Art, A Catalyst for Learning," School Arts, LX (November, 1960), 6.}
Creativeness in the curriculum may be fostered by: original writings and musical compositions; dramatizations and speeches; scientific inventions and research; and art activities. Experiences in any of these should enhance all other areas of study. Studies by Viktor Lowenfeld at Pennsylvania State University and J. P. Guilford at the University of California have established the fact that "creativeness in the arts has common attributes with creativeness in the sciences." From this information it can be concluded that creative activities in any area of study can benefit the entire school program.

These statements suggest that creativeness is something that educators should foster from the earliest years through college. Art educators have been seriously concerned with this phase of education for many years, but educators in general have been ignoring it. Research has found that teachers are inclined to reward students who are passive and conform to adult standards; while creative students are often reprimanded and given poor grades.²


Intelligence tests used in schools usually do not consider factors related to creativeness.¹ Many elementary teachers are fearful of trying to teach art because of the lack of instruction and experience in such activities, and because of an existing confusion about philosophy and methods. Most elementary teachers are required to take only three to six hours of art as part of their college training. One author has declared that "no method has yet been devised to prepare one properly for the complexities of art instruction with such limited training."² A curriculum expert has said, "there is a need for more preparation in art education for elementary school teachers both at the pre-service and the in-service stages."³

Thomas Munro, in his 1960 address at Harvard University, pointed out the fact that art education has made advances toward being accepted as a valuable part of the total educational program, but it is still underdeveloped and poorly organized in comparison with other


²Albert Hurwitz, "Just the Facts, Ma'am!", Arts and Activities, LIII (May, 1963), 21.

subjects. The outstanding weakness, he felt, is the lack of continuous, systematic progression from one grade to the next. As in other subjects, the lower steps should "function as prerequisites and foundations for higher ones."\(^1\)

One art educator has analyzed the situation by saying that those in the profession have three choices: (1) to stand still and only preserve the progress that has been made in recent decades, (2) be by-passed by the current emphasis on intellectual and technological programs that might develop creativeness by another means, or (3) to move ahead by strengthening art philosophy and methods.\(^2\)

Ralph Beelke, art educator of the year, felt that if art education is to hold the respect of school administrators and the general public, it must be more concerned with the organization of the content of art and methods by which this knowledge can best be taught.\(^3\) As in other subjects, the answers to these problems must come from properly conducted research, but little valid research.


\(^3\) Beelke, op. cit., p. 16.
exists to support modern art education theories.

... There is available a considerable amount of informational material, some of it based on doctoral and master's theses, independent studies, or as the result of the work of groups and committees of the regional art associations, the National Art Education Association, and the Committee on Art Education. A large part of this material, helpful though it may be, must be classified empirical and awaiting more scientific treatment.¹

If art educators are going to improve their subject area and provide the nation with the most valuable source of creative development, then it is logical to begin with elementary teachers in their own local situations.

 Truly, the climate of a nation's culture may be conditioned in the elementary classroom, since it is a fact that a person without aesthetic education or experience in his early years does not readily begin to feel and to discern, to express and to communicate, in the arts during his secondary or college education or later in his adult life. Those capacities for sensitivity and sympathy, for feeling and expression, half dormant and underdeveloped in every young child, must begin to be nurtured from the beginning of his life, not spasmodically stimulated at occasional points along his way through school. . . . ²

Christensen and Knudson have made the following comment about research in elementary art education.


One need not look far to discover the meager research in elementary art education methods. Most of the research has been concerned with developmental levels, projective techniques, study of the personality, mental testing, the relationship of art ability and personality variables. Virtually none of the research has been concerned with art education teaching methods.¹

A need exists for valid research in art education methods at the elementary level. According to these two authors, using actual, observable experiences as evidence is the best kind of research to establish proper methods in art education.

After working with over one thousand elementary classroom teachers in the Minneapolis, Minnesota area, Christensen and Knudsen discovered that teachers wanted assistance in organizing the physical properties of handling art media in the classroom.²

As every experienced art teacher is aware, a class of eager children descends upon art supplies like a flock of starlings in a cherry orchard. Things disappear fast! Unless the teacher has made adequate preparations so that the supplies are abundant and easily obtainable, much confusion and subsequent dissipation of energies which should be


²Ibid., p. 7.
channeled into expressive work may occur. . . 1

Storage and the handling of materials can be the stumbling block to effective teaching. Badly arranged storage interferes with effective self-directed activities; it takes time from teaching; and it does not contribute to children's sense of design. It also interferes with their learning to cooperate in management of the classroom.2 Research in art education has been mostly concerned with art as a process of personal experience and little has been done to help teachers find better ways to foster creativeness.3 Since proper art materials are a means of self-expression, it seems logical to discover possible methods to facilitate the handling of them early in education.


II. DEFINITIONS OF TERMS

Creative activities. Only art activities that stir the imagination and enable the individual to express what he feels, thinks or perceives, in his own way, are considered to be creative. Simply engaging in the manipulation of art materials does not insure creativeness.

Imagination. The term imagination describes a human power that is able to visualize things that have never existed, either by developing a completely new idea, or by combining previously learned knowledge to bring forth the new.

Sensitivity. Sensitivity is a quality that is developed by the refined use of the human senses that receive and react to stimuli in the environment. Teachers must try to awaken perceptual sensitivity.

Elementary school. For the purpose of this study the elementary school will include kindergarten and grades one through six.

Self-contained. Self-contained is an educational word used to denote a classroom of approximately thirty
students who remain in the same room during the entire school day. All subjects are taught by one teacher.

**Departmentalized.** A departmentalized educational program is one in which subject matter areas are scheduled for definite time periods, and students move to various classrooms for instruction from several teachers who are particularly trained in one field of knowledge.

**Primary.** What is first means primary. In educational programs, primary refers to the Kindergarten, first, second, and third grades. In this study, only those third grades that were not departmentalized were considered as primary.

**Printing.** One art activity is printing, which is a process of making on paper or cloth, impressions of various articles coated with paint or ink.
III. METHOD OF PROCEDURE

The writer read widely in publications concerned with art education in the elementary school to be able to present a description of what experts in the field believe to be:

1. a desirable program of art in the elementary schools,
2. the minimum amount of equipment and supplies necessary to provide this program, and
3. suggestions, by art education experts, to aid elementary teachers in the task of handling art supplies in their classrooms.

School supply catalogs were examined to see what commercial items might be purchased to make handling of art materials more convenient for teachers. Items that seemed to eliminate or ease any classroom difficulty during art activities were listed in Appendix C, by media. Numbers assigned to companies supplying such items were noted on a line following each listing.

A letter such as the one in Appendix A was sent on October 18, 1963, to thirty art administrators in Iowa and surrounding states, and to five major manufacturers of school art products. The purpose of the letter was to ascertain what printed information the respondents had made
available to classroom teachers with whom they were concerned.

By inspecting the Iowa Educational Directory, published by the state for the 1962-1963 school year, it was found that there were no directors of art in the public schools of Iowa. Sixteen art supervisors and one music and art supervisor were listed under the classification of "special assignments." Also listed under this category were two art consultants and fourteen traveling elementary art teachers. The smallest school district employing an art teacher was Rudd-Rockford-Marble Rock, whose population was given as 4,670. Des Moines, with a population of 212,701, was the largest city hiring an art supervisor. In addition to a supervisor, the Des Moines art department employed two art consultants. Of twenty-two Iowa communities with a population of over twelve thousand, nine did not have an art supervisor.

Letters were sent to: all seventeen art supervisors; two art consultants; one special elementary art teacher; and two art professors, one from each of the state universities. Letters were also sent to eight art administrators in the following states: Minnesota, Missouri, Michigan, Illinois, Colorado, Wisconsin and Kansas. Ruth Mobberly, art supervisor for the Des Moines Public Schools, furnished the names and addresses of the above. From the list of
exhibitors at the 1963 Iowa State Education Association convention in Des Moines, the names of five major companies, that manufacture school art products, were found. Since they often give teachers consultant information about using their products in the classroom, letters were sent to them also. Reminder postcards were sent to those who had not replied by November 30, 1963.

Responses totaled twenty-two from a possible thirty-five. This represents a 63 per cent return. Of the respondents in Iowa nine were art supervisors, two were consultants and one was a university professor. The music supervisor from Sibley, Iowa answered in the absence of the previously employed art and music supervisor. Other respondents included five art administrators from surrounding states and four major art product companies. Printed information was received from seven; two major companies and five Iowa administrators. Suggestions from these materials were described in Chapter III. Table II summarizes the results of the letters according to three major categories; art administrators of Iowa, other states and major art product companies.

Personal interviews were made to twenty-eight educators to secure their ideas about handling art materials in elementary classrooms. Interviews were aided by the use of a checklist in the following categories: equipment,
procedures, supplies and storage racks. Specific subdivisions of this checklist can be seen in Appendix B.

Of the interviewees, twenty-two were listed, in the 1963-1964 directory for the Des Moines Public Schools, as self-contained classroom teachers. Among these, four taught kindergarten, four first, four second, four third, two fourth, two fifth and two sixth. All these teachers were considered by the writer, by the art supervisor, Ruth Mobberly, or Sarah Page, an elementary supervisor for the Des Moines school system, to be skilled in handling art materials in their classrooms.

The remaining interviewees were art educators in various situations. One was a university professor; one an art education director for an art center; one an art supervisor; and three were elementary art teachers who aided self-contained classroom teachers. Of the latter, one taught grades four to six in a special art room and went to the other classrooms for art; two had an office and traveled full-time from room to room. Suggestions for handling art materials in their situations were summarized in Chapter III according to each item on the checklist.

Racks that teachers had constructed to aid them in the distribution, collection and storage of art materials were carefully observed, and diagrams, including dimensions, were made by the interviewer. Later, more detailed drawings
were made with India ink and they were presented in Chapter III. Ideas for storage units for new art rooms, for improving old classrooms, and for portable storage units were included. The designer, the materials used and the place where these models could be observed were noted in Appendix E. The illustrations and details of their construction were given to summarize some of the best ideas for facilitating the handling of art materials in elementary classrooms. It was also hoped that they might help anyone who might desire to construct such useful items.

IV. LIMITATIONS OF STUDY

This study only describes methods found, through actual experiences, to be successful in the more efficient management of art materials in elementary classrooms. There is no scientific way to measure the validity of these suggestions. This study relies upon the opinions of experienced, successful educators. These educators represent only a small part of the many who teach art in Iowa elementary classrooms. Probably many good ideas for facilitating the physical organization of art supplies still wait to be discovered.
It is difficult to state accurately what is being done about this problem by art supervisors in Iowa and surrounding states because many of their suggestions to teachers concerning proper methods for distributing, collecting and storing art materials were not in printed form or were not readily available.
CHAPTER II

REVIEW OF THE LITERATURE

Man has displayed a need to express his thoughts and feelings through art forms from the beginning of the world, and through these works, succeeding generations have been able to obtain knowledge of previous cultures. It would seem that art would be a vital part of education in every nation, since education strives to satisfy the basic needs of each individual and present to him the accumulated knowledge of the past. However, it was not until approximately 1850 that a restricted form of art education was given a place in most school programs in the United States.

At that time, the study of art consisted of linear drawing, map making, mechanical drawing and freehand copy work that was outlined by books geared to adult standards. Educators stressed training eye and hand memory, with the purpose of providing industry with skilled artists. Art education has been a slow evolution influenced by: (1) the nature and tradition of art, (2) the philosophy of democracy, and (3) the development of teaching theories based on psychological
discoveries.¹

An overall view of major developments in art education in the United States since 1749, and the educators who influenced it have been summarized by Italo de Francesco and is presented in Figure 1. This author has made the following comment about the great changes that have taken place in art education since that time.

... Academic perfectionism has been superseded by self-discovery, and step-by-step exercises have been replaced by experiencing and experimenting. Fixed methods and procedures have been supplanted by positive guidance, and stereotyped subject matter has given way to personal interpretations of man and environment. The application of adult concepts and aesthetic standards in the evaluation of children's work has been replaced by a fresh insight into the nature and meaning of the art of children. Lastly, the aim of art education has shifted from technical precision and visual representation to the encouragement of interpretation in which individual perception finds a large sphere.

The major change, however, is best seen in the gradual recognition of art as a basic element in the development of all individuals. Art education has ceased to be a "special" field and is today regarded as an integral part of the total curriculum. ... ²

As in other areas of the curriculum, practices do not immediately follow a change in theories. Therefore, there are still educators in our country that regard art as

¹Gaitskell, op. cit., p. 4.
²de Francesco, op. cit., p. xvi-xvii.
Figure 1. The Broadening Base of Art Education.
(Italo L. de Francesco, Art Education: Its Means and Ends.
a "frill" and give it very little thought, time or financial aid. In the last decade, college courses in public school art, in service workshops and consultant services have increased; while the number of teachers who regard art as a subject limited to drawing the works of others, picture study or coloring and cutting prepared outlines, has decreased.

A noted authority of elementary curriculum, William Ragan, has stated that the principal objectives of elementary education are, (1) to provide opportunities for every child to develop his innate abilities to the full extent, and (2) to contribute to the improvement of living in our society. Art education strives to fulfill the general aims of education with particular attention to the basic needs of self-realization, self-expression, aesthetic appreciation, vocational preparation, human relationships and valuable use of leisure time and talents. In the modern elementary school, the major reason for including art in the curriculum is to develop self-expression.

Charles M. Dorn, executive secretary of the National Art Education Association, has declared that the primary educational value of the creative artistic act is "the

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1Ragan, op. cit., p. 365.
development of intelligent, creative, problem-solving behavior in the child. Specific behavioral objectives of art education have been listed in a recent study prepared for the same association. Through art experiences, children should exhibit the continued or increasing presence of:

Confidence in ability to express one's self visually
Interest in expressing ideas and feelings in visual form
Awareness of the environment and power of observation
Power to interpret everyday experiences
Inventiveness in the areas of ideas and materials
Ease and satisfaction in using a variety of tools and materials
Sensitivity to the need for beauty and ability to create it
Understanding and appreciation of the contributions of other peoples
Resourcefulness in leisure time activities
Ability to use art experiences to relieve emotional tension
Ability to work in a problem situation
Ability to co-operate in group activity
Individuality in expression and appreciation of individuality in the work of others
Power to produce unity and to give meaning through the organization of line, form, color, and texture
Ability to choose ideas, materials, techniques and design in terms of the child's purpose.

---


Just as a child does not learn to walk, talk, write or read instantly, so he does not learn to express himself artistically during his first experience with a certain medium. Instead, a child progresses slowly and gradually, with some regressions, towards the goals described. At the very beginning, of their school life, students generally manipulate materials, experiment with tools to explore their possibilities. This eventually leads to control of the larger muscles and some recognizable forms may appear. In grades, one, two and three, children invent symbols to use repeatedly to communicate their thoughts and feelings to others. Realism increasingly becomes more important to boys and girls in third and fourth grades and continues through the fifth and sixth, when they often become very critical of their work because their skills have not kept pace with their awareness of the world. Italo de Francesco has adequately summed up the whole process in a chart in his book, Art Education: Its Means and Ends. This was presented in Figure 2.

Any creative process involves certain phases, passive and active. These have been explained as follows:

(1) The development of sensitivity for or an awareness of self, others, and the world around one. The elementary school can best fulfill its mission as it provides many varied opportunities and experiences so that the windows of the world are opened to each child and keys become his to unlock new doors.
Figure 2. Growth Rhythms and Suggested Emphases For Normal Creative Development. (Italo L. de Francesco, Art Education: Its Means and Ends, New York: Harper and Brothers, Publishers, 1958, p. 597.)
(2) Incubation following the period of sensitivity. Incubation is a period of warmth, security, belonging, and human understanding. Its length varies in intensity and amount with the individual. During this period past learnings and understandings are related to new problem-solving situations which cause the reshaping and the reorganization of old patterns of learning.

(3) Intuition, inspiration, or illumination. This third step is characterized by new insights and greater understandings. It is a period of expression. As the individual gains understanding he can't resist the opportunity to express himself.

(4) The "hammering out" period, marked by self-discipline and application. Through perfect concentration, drawing upon the wealth of resources within plus the desire and skill to produce, life's endeavors are consummated by a period of creative productivity.

As in all areas of study, students will differ in their ability to perform at each stage of the creative act and this ability will not be consistent with all media. In studies carried out to find a criteria to differentiate creativeness, the following attributes were found in creative individuals; sensitivity to problems, fluency of ideas, flexibility, originality, redefinition and the ability to rearrange, analysis or the ability to abstract, synthesis and closure, coherence of organization.

Most art educators believe that all persons possess

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1Etta L. Cosner, "What is Creativity in the Curriculum?", Midland Schools, LXXV (December, 1960), pp. 22-23.

2Lowenfeld, op. cit., p. 539-540
the ability to create artistically; this ability varies in a degree. Educators must perform a dual role, namely, give their students the freedom required to develop self-expression, and at the same time, give them the discipline and mastery of skill necessary to bring this expression into concrete form. If this balance is to be achieved, children must be provided with opportunities for creative art experience, interesting, challenging learning situations, stimulating materials, ample time, adequate space, friendly, sincere, understanding teachers, informed and growing parents, and an atmosphere conducive to growth.

Art experiences in the elementary school, according to the National Art Education Association, should include:

- Drawing in crayon, chalk, pencil and charcoal
- Painting with easel paint, water colors, finger paint
- Lettering with crayon, cut paper, brush, pen, and ink
- Cutting and pasting with paper, odd materials, metal foil
- Constructing in wood, wire, metal, paper, paper mache, clay (ceramics), plastics
- Modeling with clay, sawdust, wire, metal, wax
- Mural and map making with paints, chalk, paper, and other media
- Weaving with wool and cotton yarn, and native materials
- Puppetry and marionettes
- Printing on fabric and paper

1Henry, op. cit., pp. 22-23.

Many activities, described at length in art education books and periodicals can be included under these general areas.

One curriculum guide declared the following to be basic art materials: paint, crayons, chalk, fingerpaint, clay, papier mache, collage and construction. "They should be offered at every stage of growth and development in order to insure continuous growth for the child in all areas." Many experiences with these basic materials should occur during the school year. The needs, interest and resources of students and teachers can greatly vary and enrich the art program.

In order to provide experiences in all basic art areas, adequate equipment and supplies must be available. Usually the school is financially responsible for this, but children often supply some of the items. When schools order supplies, they have the advantage of bulk quantity discounts and the quality of materials is more uniform. If the school desires to order supplies and can not afford them, the students are often asked to pay a small art fee.

Hoover has listed the supplies necessary for a good kindergarten program and they are summarized.

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below:

Brushes

Paste----------short bristle

Paint----------1/4" and 1/2" long bristle

watercolor, medium size

Clay----------moist, water-base, 25# bag

Crayons--------wax, 8 color boxes

Fasteners------brass 1" long, 100 in a box

Finger Paint---pint jars, ready mix,

(red, blue, black and brown)

Glue----------Elmer's, 1/2 pint squeeze bottle

airplane cement in tubes

Muslin--------26" wide, unbleached

Nails---------1-1/4" long

Needles--------tapestry, large eye, blunt point

Paint---------1 pound powder

(red, blue, yellow, black and white)

(orange, green, purple, brown, flesh, turquoise and magenta)

Paper--------newsprint, 18" X 24"

manila, 18" X 24" and 12" X 18"

construction, 12" X 18", assorted

white wrapping paper, 36" roll

finger paint paper, 16" X 20"

Paste--------library, quart jars

Hug yarn--------cotton weaving, 1/4" diameter
Scissors-------blunt and medium points,
Starch--------liquid, quarts

A very comprehensive list of art supplies can be found in Conant's book, *Art Education* on pages 244-256. However, this list seemed more suitable for schools with special art rooms and teachers. For regular classrooms, the following list seems to be very adequate:

Adhesives------wallpaper paste
rubber cement
masking tape

Book cloth

Brushes--------easel, flat, white bristles, 3/4", 7/8", 1"
Varnish, 1", 2"
Oxhair, round, #3, #7, #12
Camel hair, #4, #8, #10

Chalk---------1" x 4", assorted colors

Charcoal-------vine

Clay---------oil base

---

glazes

Compasses------pencil
Crayons--------wax, standard size, 16 colors
Erasers--------art gum
Fixative-------spray can
Ink----------black India
               assorted colors
               printer's, water soluble

Linoleum

Needles-------sewing, sharp points
Paint--------enamel, pints, assorted
               tempara, liquid
               (red, yellow, blue, black and white)
               (green, purple, orange and brown)
               watercolor, semi-moist, 8 color boxes
               varnish, clear

Paper--------brown kraft, 40#, 36" wide
               chipboard, 26" X 30"
               graph, 12" X 18"
               illustration board, 20" X 30"
               poster, 12" X 18"
               stencil, 12" X 18"
               tagboard, 18" X 24"
               watercolor, 22" X 30"

Pencils--------B drawing
colored sets

Pens---------points, Speedball or Esterbrook
(5B, 3B, 1B round)
(A3 square)

penholders

Plaster of Paris

Rulers--------12"
yardstick

Scissors--------pointed, 6"
shears

Soap

Turpentine

Wood---------lumber

Yarn----------raffia

reed

roving

sewing thread

warp, 4 ply

If all the mentioned items would be available to teachers,
a very good art program should exist, if the other necessary
conditions are present.

\[1\text{Missouri State Department of Education, Art for}
\text{the Elementary Schools of Missouri, (Marceline, Missouri:}
\text{Walsworth Publishing Company, Incorporated, 1956),}
\text{pp. 142-144.} \]
Many schools include working with wood in their art programs. This would require some special equipment not previously mentioned. Hoover has stated that a class of kindergarten children need the following:

- 4 claw hammers, 8 oz.
- 3 small crosscut saws
- 1 wood file, 6", half-round
- 6 coping saw frames
- 6 dozen 6" loop-end coping saw blades
- 2 pairs of pliers
- 1 hand drill with set of twist drills
- 1 brace and set of auger bits
- sandpaper, grades 0, 1/2 and 1
- nails, variety of small sizes
- 1 counter brush and dust pan

Erdt suggested these additional items:

- 6 C clamps
- 6" screwdriver
- small sawhorse

Another author added these:

- 12" steel ruler or carpenter's square
- 9" plane

Special equipment for areas of study other than wood should include:

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1Hoover, op. cit., p. 51.


Brayers
Eyelet punch
Frame looms
Kiln
Linoleum cutters
Paper cutter, 2½"
Pressing iron
Sloyd knives
Soldering iron
Spray gun
Square, 6"
Stapler
Stencil knives
T square

From projects described by several authors, the writer felt that a list of art equipment for elementary schools would not be complete without a:

book press
clay storage bin
printing press, small
roll paper dispenser

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1 Missouri State Department of Education, op. cit., pp. 143-144.
Self-contained classrooms, where most of the elementary art activities are performed, should have a minimum of thirty-five square feet per student to provide work space for groups or individuals. Items that determine the size and shape of the room are the number and size of students, activities, furniture, equipment and storage. Furniture should be easily moved and fit the child. For art purposes, tables that are horizontal, adjustable, washable, non-glare and movable are preferred. Storage should be provided for work in progress, completed work, supplies, equipment and visual aids. Near storage units should be a sink that is stain-proof and easy to clean. It should have heavy duty drains, sink traps and multiple faucets to allow several children to use it at one time. Mar-proof counter space around the sink is very valuable. Floors should be tough, durable, slightly resilient, stain resistant and easy to clean.\footnote{National Art Education Association, \textit{op. cit.}, pp. 13-14.}

The ideal room has good natural light, well-diffused artificial light, light-colored, neutral walls, adequate electrical outlets and plenty of display area. Open floor
and wall space is needed for projects such as murals, painting and construction. McElvain indicated that the sink should be placed on the inside wall, where there should also be room for a work bench with a vise and lumber storage space. Wallspace should also be provided for a movable cart. Windows should be placed low enough for children to see the outside environment. The room should be well-ventilated with clean fresh air and the temperature should always be between sixty-five and seventy degrees. Storage and work space should be placed low enough so that children can assist in caring for, distributing, collecting and storing art materials.

Responsibility for providing favorable physical conditions, adequate supplies, fine equipment and a general course of study rests with the administration; superintendents, principals, supervisors and school board members. Without their cooperation in these vital matters, no teacher can be expected to provide the best possible art program. Teachers must also be given time to teach art well and opportunities for in-service growth.

A recent study by the National Education Association indicated that, among the elementary principals questioned, there existed very little enthusiasm for a good art program. After comparing elementary art programs with those of music, it was found that art was given less time, equipment and special teachers. Smaller schools, in districts less than 6,000 were more handicapped in their ability to provide adequate art instruction than were the large schools.¹

Courses of study were provided, locally, by twenty-six per cent of the schools even though ninety per cent provided for formal instruction in art. In large districts, the median time spent in art activities in grades one, two and three was sixty minutes; in grades four, five and six, seventy minutes. Specialists aided the regular classroom teachers in one fourth of the schools, and only one third required the ability to teach art as a requirement for employment. Many of the schools did provide in-service opportunities for their teachers in the form of telecasts or workshops presented by local teachers or representatives of school art product manufacturers.²


²Ibid.
Twelve per cent of the schools had a separate art room available, and basic supplies, such as paper and paint, were provided in seventy-four per cent. A more complete understanding of equipment that was available can be seen in Table I.

In the majority of elementary schools in this country, the self-contained classroom teacher is responsible for the art program, and the activities involved must be carried out in a standard classroom. There are advantages to this situation, as Charles Gaitskell has pointed out. Art activities need not follow a prearranged schedule, so they can immediately follow a stimulating experience. Also, the teacher possesses more control over equipment and supplies to be used, and can tie art learning in with other areas of study. Young children seem to work more easily in familiar surroundings and with a familiar teacher.

... Art in the public schools is an area of experience which exists primarily for personal development and not for the production of masterpieces; therefore, it is the classroom teacher who can do the job best, since it is only the classroom teacher who can know and understand each child well enough to offer the guidance necessary for creative growth.

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1Ibid., p. 27.
2Gaitskell, op. cit., p. 105.
3San Francisco Unified School District, op. cit., p. 3.
### TABLE I

SCHOOLS HAVING SPECIAL ART FACILITIES AND EQUIPMENT

<table>
<thead>
<tr>
<th>Art facilities and equipment</th>
<th>Number of Schools Reporting</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spare room for art instruction</td>
<td>79</td>
<td>12.0%</td>
</tr>
<tr>
<td>Two-dimensional materials</td>
<td>486</td>
<td>74.0%</td>
</tr>
<tr>
<td>Three-dimensional materials</td>
<td>412</td>
<td>62.7%</td>
</tr>
<tr>
<td>Picture or slide collection</td>
<td>278</td>
<td>42.3%</td>
</tr>
<tr>
<td>Tool sets</td>
<td>192</td>
<td>29.2%</td>
</tr>
<tr>
<td>Ceramic kiln</td>
<td>132</td>
<td>20.1%</td>
</tr>
<tr>
<td>Workbench with a vise</td>
<td>118</td>
<td>18.0%</td>
</tr>
<tr>
<td>Looms for weaving</td>
<td>104</td>
<td>15.8%</td>
</tr>
<tr>
<td>Tool cart</td>
<td>51</td>
<td>7.3%</td>
</tr>
<tr>
<td>No reply</td>
<td>32</td>
<td>4.9%</td>
</tr>
<tr>
<td>Number of schools reporting</td>
<td>657</td>
<td></td>
</tr>
</tbody>
</table>

McFee believes that the best system includes a classroom teacher, who is well-trained in art education, and an art consultant, "who enriches the art program by providing a flow of material and new methods, by handling difficult educational problems, and sometimes by teaching the class."

The classroom teacher needs the art teacher's ability to deepen the understanding and perception of subject matter, so that by visualization, it becomes a real part of the child's mental equipment. The art teacher needs the classroom teacher because she can sometimes provide a common framework upon which she can build her story about personal aesthetic expression.

Whether art activities are taught by the regular classroom teacher or by a special art teacher, the creative art program must measure up to the requirements below:

1. establish and maintain a psychological environment in which a child feels free to work with no fear of unfavorable comparison either with classmates or with adult standards of art.

2. provide vital experiences which will provide a flow of ideas. The urge to create comes from within, but it is brought about by vital interaction with one's environment.

3. knowledge and understanding of tools, materials and processes.

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1McFee, op cit., p. 275.

2Elaine P. Cohen, "Thoughts on Teaching Art in the Elementary School," School Arts, LXII (February, 1963), 34-35.

One more important item should be added to this list:

... allocate enough time for experimentation and exploration, and for the incubation of thoughts and feelings. ...

Time should be allotted for three types of art activities; art learning, self-directed, and integrated.

Art learning activities provide the child with motivating experiences to encourage his creative development of ideas for expression in art. His perceptual sensitivity is increased by giving him help in learning to organize complex visual information. He becomes familiar with the uses of many materials and tools.

During self-directed activities, the child can exercise his ability to make choices and act upon them at his own speed.

During integrated activities art is used to complement learning in other areas—relationships, sequences, summaries in units of learning can be organized in visual communication. The role of the arts in the life of pupils' own and other cultures is part of social studies. Design in nature is part of learning in science.\(^2\)

A special art learning lesson is usually presented to the entire class, to give them instructions and experiences with new media, or to renew familiar ones. The steps of an art lesson can be listed as follows:

1. Preparing necessary materials
2. Planning new subject matter or procedure by;

\(^1\)Michael F. Andrews, "32 Smith Hall," Everyday Art, XXXVIII (Fall, 1959), 9.

\(^2\)McFee, op. cit., p. 241.
a. discussing a recent personal experience with students

b. stimulating children by building a background of experiences

c. demonstrating a procedure when presenting a new idea or technique

3. Goal setting through constructive objective evaluations of previous work or similar work done by children or adults

4. Doing actual work

5. Cleaning up materials

6. Enjoying the work accomplished.¹

Self-directed activities usually occur during a free choice period when required work has been completed and class activities have been broken into groups for recitation and individual study. Teachers usually have centers of interest in various places in the room. One of these might be supplied with familiar art materials for children to use at their own discretion.

Art experiences can be beneficially correlated with other learning situations in social studies, science, music and reading. The teacher must be careful that this type of activity does not result in copywork or mapmaking: the

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creative atmosphere must still prevail. Holiday themes can be used to great advantage if each child is allowed to make his own creative interpretation and is, "unhampered by stereotyped examples, cliches, patterns, and directed procedures."¹

Before any type of art activity can take place, the proper materials must be prepared by the classroom teacher. Care should be taken to plan activities around those that are available from the administration, the students and sources that resourceful teachers often find. Materials and tools must be carefully chosen with respect to the age and special needs of the students. Tools and materials should be sensitive instruments "through which the spirit flows out into art expression."² The aim is to get materials that will bring the child closer to his work and will not hamper him.

Creative experience requires flexible materials and media. These instruments are the practical means towards originative expression and should fit the child's fingers and obey his will. They must be as rich in possibilities as the child's imagination demands, so that their qualities of flexibility and plasticity


will encourage and not inhibit expression. A child
cannot respond freely and spontaneously to stubborn
tools, nor can he broaden his vision or grow in power
with a limited range of materials. The importance of
this fact to good education has been overlooked even
by many progressive teachers. Though they practice
modern methods according to the newer philosophy, they
still employ the limited materials of the academic
school of art in the same formal ways.¹

Some art educators believe in no formal teaching;
others teach too much and fail to give their students an
opportunity to experiment. The first situation prevents
the children from acquiring the basic knowledge and skills
necessary to bring forth their expression; the second
deprives them of a chance to develop creativity.

Children who are provided only with art materials
and allowed to work without supervision and guidance
rarely create anything educationally worthwhile. The
act of creating with paint and paper imposes on both
adult and child the need to establish a problem, to
gain and utilize relevant knowledge, to test problems
for possible solutions, and to marshal the skills
necessary to execute the solution. . . ²

. . . We have too long assumed that reading, writing,
and speaking, cognitive-and verbal-information handling,
take years of training; but that perceiving, visual
information handling, requires only that children
open their eyes. . . ³

Guidance, then, is the primary task of the teacher

¹Ibid.
²Dorn, op. cit., p. 31.
³June K. McFee, "New Purposes for Art in School,"
Instructor, LXXII (November, 1962), 6, 115.
of art. In order to teach art to children, a teacher need not possess great artistic skill herself, but must accept the idea that creative art expression is essential for normal child development and do everything possible to see that her students get many opportunities to experience it. Viktor Lowenfeld has said that whatever a teacher does in stimulating creativeness depends upon:

1. a creative, sensitive and flexible personality
2. the ability to put one's self in the place of others
3. an understanding and knowledge of the needs of students.¹

In order to become a better teacher, one should become familiar with basic art materials, their preparation and use, watch other teachers work, read the latest art publications and take advantage of in-service opportunities.

Both Gaitskell and Conant advised administrators, who can not afford a special art room in their elementary schools, to provide an art service room. Ideally, it should be about double the size of an ordinary classroom, so that it could serve as a place to store: art supplies and special equipment; unfinished projects and exhibits; and articles for plays and puppet shows. It would provide a place for

teachers to experiment with new media and for groups to carry out projects not suitable for regular classrooms. This could be a central storage area for supplies, which could be transported by service carts to other rooms when needed.

... It should include clearly labeled drawers for tools, papers, cloth, and wood scraps; cupboards for costumes, drums of clay, marionettes, murals and small tools; cabinets for various supplies and equipment; a sink with drain boards; work space on countertops; open shelving for storage of books and materials; bulletin boards for work on scenery and murals; and kiln equipment.

Furniture and equipment might include: work benches with vises; stools or chairs; several large work tables with adjustable height legs; a mobile art wagon or cart, a printing press; a kiln; a large paper cutter; an adjustable-opening pencil sharpener; two 25 gallon clay crocks; a dispenser for 36" (or wider) wrapping paper; trays with compartments for carrying paint jars; and a wedging board.

Gaitskell maintains that money can be saved by this arrangement, since duplicate equipment would not need to be purchased for each classroom. This is particularly true of large equipment used only a few times a year by each teacher. The art service room should be considered as a temporary arrangement and as soon as finances are improved, a special

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2 Gaitskell, op. cit., p. 119.
art teacher teaching in a special art room should be provided for every 350-600 students. 1 "Even the most elaborate art programs cost only three or four dollars per pupil per year." 2

No matter what type of room a teacher has, it can always be improved by orderliness and organization. A good teacher realizes that this is an important part of the student's training, also. The major responsibility for this belongs to the teacher, but as children are able to assume responsibilities, they should help organize, distribute, collect, clean and store art materials properly. "Kindergarten children are mature enough to learn to be careful of the art materials and to be purposeful in their use." 3 Furthermore, "tidiness helps to keep tempers down and art activities going smoothly." 4 Students should be helped to understand that, "time spent in organizing and caring for materials and tools will pay high dividends in time saved, money, increased safety, higher quality products and more enjoyable personal experiences." 5

1 Conant, op. cit., p. 234.
2 Ibid., p. 243.
3 Erdt, op. cit., p. 52.
4 Ibid.
5 Conant, op. cit., p. 263.
In an ordinary classroom, not too adaptable to art activities, and where other subjects must be taught, more attention should be given to, "system, order and cleanliness."\(^1\)

... Every child should feel he is responsible for the good appearance of the room and should have a specific job in this connection. Cooperative planning should help decide the division of labor. Some pupils should see that all paint is wiped from the desks, some should keep the paint shelves in good condition, others should look after the displays, and so on. The attractive condition of the room will be recognized by all as most rewarding, and any normal group of youngsters will take pride in these surroundings. There is always something satisfying in building from practically nothing, and the classroom which presents a real challenge often brings the greatest pleasure to those who improve upon it.\(^2\)

Gaitskell further explained that much can be done to improve working conditions in unequipped classrooms. Flat work space can be made by placing plywood strips on the tops of slanted unmovable desks. Blackboards, which are usually plentiful, can be temporarily converted into work space with heavy paper, board or cardboard. Collapsible shelves can be mounted under chalk rails. Wasted space under windows can be a good place to construct simple shelves to store tools and provide ledges for drying art work.

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\(^1\)Gaitskell, op. cit., p. 116.

\(^2\)Ibid.
Drawing boards and hammering or cutting surfaces can be made from heavy cardboard or plywood. A wooden clothes rack or clothesline with clips provides drying areas in cramped quarters.¹

Conant suggested that vertical or horizontal shelves, closely spaced, can care for drawing boards and paper with a minimum of space. Portable plastic trays can be used to transport and store work in progress, with a minimum amount of effort. Grooved racks can be installed to support them.²

If equipment and materials are not the best, or are not available, many inexpensive materials, second-hand tools and scrap items can be used. Teachers should not only be constantly on the lookout for possible sources of supply, but they should also foster ingenuity in children to help them, "to improvise, to utilize, and to care for the materials at hand."³ Easels can be made by placing a piece of plywood on the back of a chair, a paper carton cut in a triangular shape, a table turned on its side, or a board

¹Ibid., pp. 113-115. ²Conant, op. cit., p. 240.
nailed to a box. ¹ Paint palettes can be made by: gluing milk bottle caps to cardboard; placing paper cups in holes cut in plywood, with door stops for legs; shaping aluminum foil into round depressions; or by placing paint pans, saucers, glass casters, fruit jar lids, cut-down milk cartons or aluminum food containers in paper boxes. Mobile carts might merely be a series of shelves on casters. For distributing large quantities of materials, heavy plywood on casters is adequate. These authors have included diagrams of each idea in their book.²

Christensen and Knudson insist that any classroom should possess a, "friendly appearance of groomed spaciousness," and the necessary ingredients for this are; "organization, good housekeeping, and an awareness of the needs of special age groups within the specific room."³ To meet these conditions, they suggested the following:

Provide free, uncluttered floor areas around the entry.

Group furniture of similar height and purpose parallel to the wall, in square, rectangular, F, H, T, L, U or E shapes. . . .

¹Ibid.
²Ibid., pp. 48-50.
³Christensen, op. cit., p. 190.
Group desks into small flexible units that allow children to face the inside walls.

Group desks so that children see more faces than backs.

Place the teacher's desk inconspicuously toward the side of the room. This allows for more informal observation and inconspicuous individual conferences.

Establish comfortably spacious centers of activity to be used by children for multipurposes, if necessary.

Provide some empty wall surfaces and the window wall for eye-rest space.

Group charts together.

Remove glass from a picture if it mirrors room furnishings.

Mc Ilvain stated that no child should be allowed to face the light. They should be able to easily reach materials they need. Those materials that use water should be placed near the sink. Tools, nails and other wood working supplies should be kept in closed cupboards. If the shape of each tool is painted on the back of the cupboard, children can easily see where to return them. Easels should be near the sink, where paints are stored, and the best position for them is at right angles to the windows.

The author has made these further suggestions:

\[1\text{Ibid.}, \text{pp. 190-192.}\]
Label each container with a symbol for the material and its name in large block letters. Keep dry brushes in rustproof cans, in boxes or jars. Separate each kind of brush, and allow a space between the brush tips and the box.

Pour liquid paint into baby-food jars or juice cans for classroom use (wooden cheese boxes or shoe boxes are useful containers for these jars or cans). Place three in pound coffee cans for class use. These may be stacked for storing.

Keep liquid fingerpaint in a large open-neck jar with a lid that closes tightly, and keep a wooden spoon beside the jar to use as a ladle in dipping out paint.

Store crayons and chalk in separate boxes; put warm colors - yellow, orange, red, red-violet - together, and cool colors - blue, green, blue-violet, violet, brown - together. Put white, gray, and black together in a third group.¹

Excellent illustrations of a tool cabinet and a paint cart can be seen on page 19 of this book.

Hoover suggested that art work should be kept in some type of folder so that parents and teachers can note student progress. An old shirt with the sleeves cut short makes an excellent smock for small children. According to this author, the best place to paint is on the floor, providing the tables and chairs have been pushed back to make room for such an activity. Part of every art lesson should be devoted to thorough cleanup. Large sponges should be available to students at all times to wash up spilled media. Keep

¹McIlvain, op. cit., p. 21.
a "treasure chest" of scrap materials in a good location and encourage children to contribute to it often.¹

Missouri's state curriculum guide for elementary art has offered these fine suggestions to aid teachers in developing good work habits with students:

Develop the habit of wearing smocks or aprons when painting or working with clay, chalk, or any material which might soil clothing. Before starting such activities, cover tables or floor with newspaper.

When easel painting, have a brush for each color.

Teach children to clean up, immediately, any paint, clay, or chalk that is dropped or spilled.

Always remind children to stay in one place while working with clay. Small particles dropped on the floor form a grey powder, and when walked on, soon track up the room and hall.

Teach proper handling of tools. Guard against accidents.

Do not use scissors to open cans or dig holes. They should always be kept away from the face. Carry scissors in closed hand, grasping them so the point will extend downward for protection if the child falls.

Encourage good workshop habits in care of tools. Do not saw into nails or metals. Use workbench instead of the table. Keep tools clean, sharp, and in proper storage place.

See that materials are not wasted.¹

Gaitskell has made six valuable suggestions to teachers to help them organize art materials for easier distribution and storage:

- Brushes and pencils should be placed in glass jars, with bristles and points up. Blocks of wood with holes bored in them, each hole large enough to hold one item, are another convenient way of arranging this type of tool.

- Crayons should be separated according to colors. Each container, which might be a paper plate or a small cardboard box, should hold only one color.

- Moisten clay should be rolled in balls and placed in a large earthenware jar or a tin container, either of which should have a lid to keep in the moisture.

- Paper should be cut to size and arranged on a shelf in piles according to size and color.

- Paper scraps should be separated according to color and saved in small cartons.

- Paste should be kept in glass jars (or, if dry, in the bulk packages). The teacher should place paste on disposable paper plates or simply on cardboard after it has been mixed for use.²

Finally, Conant has given these hints to teachers of art:

- Newspapers, paper towels, and wiping rags for use with paint, chalk and other media must be located conveniently on shelves, racks, or in bins and drawers.

- Wash tempera and watercolor brushes with mild soap and water, rinse, point with clean, damp hands, and place

¹Missouri State Department of Education, op. cit., p. 15.
²Gaitskell, op. cit., p. 111.
bristles-up in plastic or metal containers, or suspend from racks or hooks with bristles down but not touching anything.

Clean shellac brushes in alcohol. Clean oil paint and enamel brushes in turpentine, kerosene, or other cleaning solutions. Remember that strong cleaners burn hands if exposed for long.

Jar racks prevent tipping of tempera paint, enamels, and lacquers. Wooden dowels about 1/2 x 12 inches, or long-handled spoons, may effectively be used to dip out small quantities of paint instead of attempting to pour small amounts into mixing trays or palettes. Squeeze-type plastic catsup and mustard dispensers have been used with great satisfaction in dispensing tempera paints.

Small glass jars with twist top lids are well suited for small amounts of left-over mixed colors.

Store scissors in portable racks.

Properly cover jars of paste to prevent drying.

Empty chalk boxes can be used for broken crayons and stencil brushes. Label neatly with felt tip pens (or brushes and India ink) and store in cabinets.¹

No where have the authors mentioned the use of patterns, stereotyped cutouts and hectographed outlines. Hoover said new teachers should never collect them, and experienced teachers should throw them away. They are easy but not suitable art work. Rather, the teaching of art requires a sincere desire to provide children with many opportunities to express their own ideas and feelings with a variety

¹Conant, op. cit., p. 263.
of media. This is no easy task and it takes careful planning and organization to ensure optimum experiences in self-expression.

... The creative spirit of too many children has been permanently crippled by activities which required no original thinking and relied upon adult drawn clichés. From the first day of school, children should take it for granted that whatever they produce with art materials will reflect their own thinking, their own feelings, their own seeing.¹

¹Hoover, op. cit., p. 11.
CHAPTER III

INVESTIGATION OF METHODS FOR HANDLING ART MATERIALS

School supply catalogs were viewed to find what items could be purchased to help elementary teachers in preparing, distributing and storing art materials in their classrooms. Items that would save time or energy on the part of students and teachers were listed in Appendix C. Names and addresses of companies supplying these commercial items were listed and each assigned a specific number. After each item listing, numbers of the companies were entered on the succeeding line.

On October 17, 1963 a personal letter was sent to twenty art educators listed in the Iowa Educational Directory for 1962-1963 as elementary art supervisors, art consultants or special teachers. These educators were listed in the directory under the heading "Special Assignments" for each school district. The names and addresses of eight art administrators in seven states surrounding Iowa were secured from the Des Moines art supervisor, Ruth Mobberly and letters were also sent to them. Companies manufacturing school art products often give teachers suggestions for using their materials in classrooms, so letters were sent to the five major companies listed as art education exhibitors at the Iowa State Education
Association convention in Des Moines during October 1963. The purpose of the letter was to find out if any printed information might be secured from these sources to give suggestions for managing art materials in elementary classrooms. Two art professors were also contacted.

From a possible thirty-five, twenty-two replied to the letter of inquiry. This represents a 63 per cent return. Of the twenty-two respondents, thirteen were art administrators from Iowa; five were art administrators from surrounding states and four were art product companies. A summary of the results of the letters of inquiry can be seen in Table II.

Printed information concerning the handling of art materials in elementary classrooms was received from five Iowa art administrators: Lars Souder, Neil Paterie, Ruth Mobberly, Ronald Kuhnle and Archie Bauman, from Davenport, Keokuk, Des Moines, Storm Lake and Cedar Rapids, respectively. Two major school art product companies sent printed materials.

Mr. Souder sent three mimeographed bulletins from the art department of the Davenport public schools: one described two methods of group temper painting and two discussed printmaking. Each were subdivided by such headings as: general information; objectives; materials, including
TABLE II

PRINTED SUGGESTIONS FOR HANDLING ELEMENTARY ART MATERIALS

<table>
<thead>
<tr>
<th></th>
<th>A*</th>
<th>B**</th>
<th>Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Had no printed information</td>
<td>6</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2. Sent printed information</td>
<td>5</td>
<td>---</td>
<td>2</td>
</tr>
<tr>
<td>3. Listed information that could be purchased</td>
<td>2</td>
<td>3</td>
<td>---</td>
</tr>
<tr>
<td>4. Sent suggestions</td>
<td>6</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5. Suggested conference</td>
<td>2</td>
<td>---</td>
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</tr>
</tbody>
</table>

*Iowa Art Administrators

**Administrators in surrounding states

***School Art Product Companies
audio visual aids; procedures and references.

Tempera painting, Method I, had been used by Professor Frank Wachowiak at the State University of Iowa. It is suggested that easels be made from cardboard packing boxes for each student. Paints should be kept in small screw-top bottles and stored in labeled boxes. A brush should be used for each color, the number of which should total more than the number of students. Brushes could be stored in two pound coffee cans, that also make good water containers. With materials on a central supply table, the room should be arranged for a left and right line of traffic. In other words, confusion will be diminished if traffic flows orderly, with children facing left using the left side of the supply table and children on the right using the right. Method II suggested that four children share a paint kit that is a box or rack with six to eight jars of paint and two brushes of medium length handles in each jar. Work surfaces could be desks grouped together or the floor.

When printing, teachers were advised to cover tables with newspaper and make a stamp pad from folded paper towels, felt or sponge. This should be placed in a jar lid or frozen food tray and saturated with about one half tablespoon of tempera mixed to creamy consistency. One might
either use trays for four youngsters or arrange materials on two tables and allow a few at a time to print.

Neil Peterie sent five mimeographed bulletins; concerning art materials in central supply, central art supply areas, keeping children's art work, preparing for art classes and an art supply inventory list. In each elementary school in Keokuk, a central supply room provided storage for all art supplies. Peterie suggested that these supplies be grouped according to areas, such as; tempera, construction paper, poster paper and brushes. Items in each area should be sorted according to size and color. Partially used sheets of paper should not be returned to the central supply, but should be stored in each room in a scrap box. Primary teachers were not allowed to ask students to secure and return materials, some of which were reserved for use in the intermediate grades.

Peterie further explained that individual art work should be kept in a brown wrapping paper envelope that each child has folded, stapled and designed. Some work should be sent home periodically and some should be kept for exhibits. This art consultant offered the following suggestions to teachers concerning preparation for art classes:

1. Children must be trained to help prepare and distribute materials for art, and they must be trained to help clean up after an activity. We, as teachers, are doing the children no
favor if we never let them help. This is an important part of their education.

2. To prevent wasting any class time in art or other subjects, arrange materials on a table so that they may be handed out quickly. This preparation should be done in the morning before school starts on "art day"; or it should be done in the afternoon after school, on the day before the planned art class.

Don't count on having enough time during the lunch hour to prepare art materials.

3. Allow ample time to distribute materials before the art consultant arrives. Time is much too short for handing out materials after the consultant comes in. Allow only a few children to help with this. Others must remain in their seats. If everything is ready before the consultant arrives, work on basic arithmetic facts, read to the group, etc., but do not have books out on desks.

4. Mix tempera paint at least a day or two before it is needed. Keep jars sealed tightly.

Ruth Mobberly, Des Moines art supervisor, sent one mimeographed sheet entitled, "Organization of Art Equipment and Supplies," which was composed of descriptions and illustrations of storage racks that could be constructed by teachers to aid them in distributing, collecting and storing small equipment, expendable materials and student work.

This letter led to a personal interview which was described later in this chapter. Ronald Kuhnle of Storm Lake said that all the responsibility for the care and distribution of art materials was that of the student.

since each was expected to supply his own. He sent a list of art materials needed by each student in grades three through twelve. Archie Bauman, art consultant in Cedar Rapids, sent a teacher's checklist for classroom management.

Two major art product companies sent printed information in reply to the letter of inquiry. Weber Costello Art Service Bulletin IV, listed suggested art materials for elementary school programs. These were classified as minimum, basic expanded and permanent for three grade levels, group A, B and C. Bulletin V estimated the cost of art materials for a class of thirty-six students. Estimates for group A, (grades kindergarten through two), were based on one hundred sessions; group B, (grades three through five), on seventy-five; and group C, (grades six through eight), on fifty. Here again, the programs were classified under previously mentioned headings and it was interesting to note that the cost per session per child ranged from one cent, in the minimum for group A to nine cents, in the expanded group C. Weber Costello also prepared suggestions for using their products through projects sheets, printed on colored, punched standard notebook size paper. Information sheets sent to the writer were listed in Appendix D.
The Milton Bradley Company sent their school supply catalog number E103. Included in the catalog were item descriptions, illustrations and suggested quantities needed for primary, intermediate, junior and senior high schools. This purchasing guide considered basic art materials for thirty students for one year. Free educational literature could be obtained from Milton Bradley by writing to the company. Titles of this printed information were also listed in Appendix D, along with curriculum guides that respondents said were available for purchase.

In summary, art administrators of Iowa generally indicated that most teachers were free to manage the distribution and storage of art materials as they desired.

Most teachers were asked to take an inventory in the Spring and requisition supplies for the next year at that time. Bulk supplies were stored in a central room in most situations and often a cart or carrying device was provided for teachers to transport materials to their rooms. Suggestions for handling art materials in the classroom generally were made verbally, through curriculum guides or occasionally by mimeographed sheets. Some indicated that this was discussed in faculty meetings or workshops. Mr. Bauman added that the Croft Educational Services
publications often contain valuable articles on classroom management. The Detroit art director advised the use of a film entitled, "The Care of Art Materials" distributed by the McGraw-Hill Book Company.

In an effort to discover methods used by classroom teachers to facilitate the handling of art materials, the researcher interviewed twenty-two teachers who were listed in the Des Moines personnel directory as self-contained classroom teachers; four each from kindergarten, grades one, two and three; and two each from grades four, five and six. In Des Moines, art is usually taught: in the primary grades, by the self-contained classroom teacher; and in the intermediate grades, by a special art teacher, in a special room. However, throughout the system there were approximately one hundred intermediate classrooms that were also self-contained. Twenty-three schools were self-contained completely and had no special art room or teacher. Two or three art consultants have been available to aid these teachers during the last five years, but no regular time schedule has usually been arranged. A comprehensive curriculum guide for teaching art in the elementary grades was printed in 1960. This guide discusses philosophy, child development, major areas of study and suggested classroom activities appropriate to stated grade levels. During the
1963-1964 school year, in-service workshops have been available, once a week, after school, on a voluntary basis, for self-contained and art teachers. In recent years, in-service telecasts and workshops were required once a month.

Most of the supplies listed in Chapter I have been available to Des Moines teachers, but their annual expenditure must include all instructional materials for every subject taught. Quotes for supplies for the 1963-1964 school year were based on the following amounts per child: $0.95 for kindergarten; $1.80 for grades one and two; and $1.90 for grade three. Art supplies for special art rooms were provided through the art department fund. Each art teacher ordered the supplies necessary to complete a yearly quota of each item on extensive inventory sheets; one for equipment and one for supplies. Some schools have reserved a special fund to allow teachers to purchase small items listed on general inventories.

Supplies in each building were ordered in the spring for delivery in the fall. Principals have been responsible for ordering, sorting and distributing supplies to their teachers as they desired. Most schools had a central storeroom for storing large quantities and a workroom for their preparation. Carts were available in many buildings to aid the teacher in transporting supplies. Cupboard space in
individual rooms were used to store books, equipment and supplies used in other areas of the curriculum. Older buildings especially needed more storage areas for elementary classroom supplies, equipment, student work, and resource materials.

Schools that had special art rooms and an art teacher assigned to their building operated on several different plans. Fifteen schools were on a six-unit plan providing a fifty minute art period every other day for students in the intermediate grades. Since the adoption of educational television, seventeen schools were on a plan by which each student in the intermediate grades received special art instruction forty minutes every other day. While students learn in large class television rooms, the teachers of art, music and physical education have been free to help self-contained primary teachers with their special subjects. Time schedules for this varied from one building to another, but usually the art teacher visited each primary room once every two weeks for a half hour. The art teacher has been responsible for planning and presenting each lesson, and this acted as an in-service opportunity for regular teachers.

Teachers for interviews were selected from a recommended list prepared by the Des Moines supervisors of art
and of elementary education. By telephone, an appointment after school was made for each teacher. When possible, the interview took place in the teacher's room so that actual items useful to this study could be observed. However, if the interviewee desired, a more convenient place was arranged. Interviews usually took about thirty minutes, depending upon the number of suggestions each teacher had to discuss.

Rough sketches with proper dimensions were made on blank sheets of newsprint paper attached to the checklist. Otherwise, the interviewer wrote comments in the provided spaces of the checklist as the teacher answered questions concerning equipment, procedures and supplies. Only ideas involving actual storage, preparation or distribution of materials were noted. Six teachers preferred to fill out the checklist personally.

In addition to the twenty-two self-contained classroom teachers, six art educators were interviewed. One was an art professor in charge of the University School at Iowa City, Iowa. With his assistants, this art educator has provided many excellent storage ideas in two unequipped classrooms. All grades through high school were taught in this school. The elementary art room adjoined the senior high room so many materials could be shared. All elementary students came to the art room twice a week for fifty minute periods.
Another art educator was the Art Education Director for the Des Moines Art Center. This section of the art center has been set up to provide classroom space for 378 students with no more than twenty-four in a class. Students attended classes through tuition fees or scholarships given to the schools in the area. Classes for elementary students have usually been held on Saturday morning. Instruction has been offered in the areas of painting, pottery, printmaking and sculpture, in seven different studios, each of which had its own instructor. Each of these instructors was an artist-teacher who held a Master's Degree and an Iowa teaching certificate. Each instructor had the services of a paid assistant, usually fourteen to eighteen years of age. The assistant transported the supplies for the day from the central storage room and returned them when classes were over.

The last art administrator interviewed was the Supervisor of Art for the Des Moines Public Schools. The interview was held in the art room at Slinker where art workshops have been held. Here teachers could come for in-service workshops and for consultation. On display were ideas for storage racks and student projects and bulletin boards. A recent meeting of all art teachers was devoted to the care of equipment and supplies. All teachers were urged to bring...
in ideas for storage units. These were all put on display and a service bulletin describing them was distributed to each teacher. Some ideas from this meeting were presented in Figure 3.

The remaining art educators were elementary art teachers, one of which was a Des Moines teacher who taught intermediate grades in a special art room in addition to teaching the primary grades in their own classrooms. Both art teachers from Ankeny and West Des Moines had no art room, but provided all art activities in self-contained rooms. Supplies were kept in a central storage room and were transported in boxes. One sixth grade teacher listed as a self-contained classroom teacher had a special art room and taught intermediate math and art in a team-teaching arrangement. The following paragraphs describe suggestions given by interviewees.

The most popular protective material was newspapers which were used in pads or sheets. One teacher painted a large cardboard box and stored newspapers in it. Cut-out handles on the sides made it easy for children to carry. For projects that soil easily, many teachers used plain newsprint paper to protect desks. Discarded shirt cardboards and paper towels were used for plasticine work.

One teacher was fortunate to have desks with formica tops
Figure 3: Portable Storage Baskets for Specific Art Materials

A. Scissors
B. Yarn
C. Brushes
D. Compasses
that could be wiped clean easily. At Iowa City, all tables were covered with a sheet of beaver board that had been edged with masking tape and covered with rubber base wall paint. Small pieces were used for drawing boards and all could be repainted when soiled. Large strips of wrapping paper were used to cover the floor when large groups worked together. A strip of linoleum was placed under easels to protect the floor from spilled paint, and plastic cleaning bags were often used to cover easels and desks. One teacher covered an easel with clear contact paper.

To protect children's clothing, eight teachers, mostly in the primary grades, had available men's shirts with sleeves cut short. Aprons or rags were substituted for these. Miss Mobberly suggested an apron made by cutting holes for the head and arms in a plastic cleaning bag. Cut edges should be bound with masking tape to prevent tearing. Mary Storbeck made an apron from several full sheets of newspaper that had yarn stapled on for a neck strap and ties.

Every teacher used some type of monitor system to designate responsibility to students for distributing, cleaning and storing art materials. Many let children help organize duties and jobs were changed often so all children could experience many duties. Some monitors were chosen to care for one item; others cared for all
items in a group. Most teachers placed equipment and supplies for the day on a worktable.

Small equipment, such as brushes, compasses, needles, pencils, pen holders and scissors were easily passed in some type of portable rack. Such racks were made by drilling holes in sturdy cardboard or wooden boxes and in thick pieces of wood. Racks that had the exact number of holes for each tool eliminated counting to see if all items were replaced. All art teachers and six self-contained classroom teachers used such racks designed to suit their needs. Several teachers left small items in individual desks. Most often found there were new crayons, pencils, erasers and scissors. Usually all items of one kind were stored in flat wooden or cardboard boxes or upright in wide-mouthed tin, glass or plastic containers. Mrs. Wallace, first grade teacher, used colorful heavy paper paint buckets to store and distribute small materials. Wire handles made them easy for children to carry. Each was labeled with cut paper names and symbols of their contents.

Broken crayons and chalk were often separated according to color and placed in small cartons such as paint pans, foil food pans, plastic cartons, tin cans or peanut butter jars. If the carton was opaque, the outside
was usually painted the color of its contents. Two tote-trays for distributing many small containers were presented in Figure 4. A large box lid or tray was utilized for the same purpose. Mobile service carts are very helpful in dispensing many materials. If a manufactured one is not available, Figure 5 illustrates two carts designed and constructed by teachers.

Paints, usually powdered tempers, were mixed and stored in small jars with screw lids. Several teachers advised using plastic glasses or containers to prevent breakage. It was suggested that only small amounts of paint should be mixed at one time, because it spoils quickly. One teacher mixed paint directly with liquid starch and soap to prevent spoilage and difficult clean up. Finger painting was often done on large metal cookie sheets. Bristle brushes were reserved for students in third grade or above.

Paste was distributed in two ways. A small amount was placed on scrap paper or small jars were kept filled. Small children find it difficult to unscrew lids so some teachers used plastic pill boxes with snap lids.

Clay was usually kept in a large crock, often on a dolly. For distribution, small balls were prepared by the teacher or a committee of students. Plastic bags and wet rags kept clay workable. Ceramic clay usually was painted
Figure 4. Portable Storage Racks For Various Art Materials
Figure 5.  Art Storage Aids for regular classrooms

A. Tote Tray Rack
B. Drawing Board Rack
C. All Purpose Cart
D. Educart
with tempera and later shellacked, because kilns were not available for most self-contained classroom teachers. Plasticine was used mostly in the primary grades and was placed in balls inside a closed container.

Reams, or packages of paper were broken, one at a time. Most teachers left the bulk of paper in the central supply room because of lack of storage space in the classroom. Paper was usually stored in the package wrappers and stacked flatly on shelves in closed cupboards according to size and color. Monitors passed out paper that had been previously cut by the teacher. A paper cutter and roll dispenser were always available in each supply room and in each art room. If children selected colors, they usually came, a few at a time, to a supply table. Besides the standard types of paper, teachers used the following: corrugated, finger paint, crepe and tissue. This paper was sorted by color and placed in individual cardboard boxes. A piece of the color of paper inside the box was pasted on the outside so that children could quickly see where the colors were located.

All teachers agreed that each child should clean up his own work area when work time ends. If tools and scraps are put in a convenient place of the desks, the monitors chosen to collect materials (usually the same ones who
passed out the materials) can complete their task in less time. Children do not always like to stop work and clean up so teachers often use some type of game to encourage them to do so. One teacher appointed a clock watcher, who seldom forgot to remind all classmates when it was time to clean up. Usually five minutes is enough for the clean up portion of most classroom art activities. One teacher counted down from a certain number, usually fifteen or ten, and when zero, or "blast-off time" was reached, all desks were to be in perfect order and each child in his seat. At the very last, some children needed to "inspect" all desks or use a sponge, rag, counter brush or broom for general cleaning. The wastebasket can become a "bank" and each scrap placed in it can be imaginary money. Children usually become very enthusiastic to clean up when it is fun.

Fourteen teachers had children store current art projects in some type of folder, usually made by the student from brown wrapping paper. Some allowed students to decorate their folders. One teacher had her children make a booklet from 12" x 18" drawing paper stapled together. Five teachers said they felt it was important, especially for young children, to take their work home each night, so they did not use folders. Lack of storage space often necessitated taking work home quickly. Usually work was left to
dry on newspapers on the floor, extra tables or window ledges. One school had a collapsible clothes rack and clothes pins for drying art work. Three teachers hung wet art work from strings stretched across the room. Clothes pins, paper clips or chart hooks were used to fasten pictures to the string. Mrs. Byam pinned paintings to a cork strip which was under the chalkboard. A few schools were fortunate enough to have lockers for each student and this was used to store art folders and individual items used in their work. Frank Wachowiak constructed racks to hold plastic tote trays in the university school at Iowa City. All items needed for work were placed in the tray. Each child was assigned a number on a tray which he secured at the beginning of the art period and put away later. This storage idea was illustrated in Figure 5. A drying rack and puppet rack were presented in Figure 4.

Generally self-contained teachers expressed a desire for more time to teach art, more money to buy personally preferred supplies and more storage space. Excellent permanent storage units were presented in Figure 6. Perhaps administrators might consider these in planning new art rooms or art service rooms. All teachers expressed a desire to have portable storage racks to facilitate distribution, collection and storage of art materials, but they felt that they did not possess the skill or time to
Figure 6. Permanent Storage Units For Art Rooms
construct them. Some suggested that the school might consider providing such racks as permanent room equipment. This is especially desirable for art teachers who have many groups of children passing to and from their room on a fixed time schedule.

The writer has attempted to describe the most valuable methods used by educators to facilitate handling of art materials in elementary classrooms. Probably many more good ideas are in use in classrooms throughout the nation. It is hoped that these suggestions will aid administrators, art educators and self-contained classroom teachers in providing the best possible art program for all children.
CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

I. SUMMARY

It was the problem of this study to investigate methods used by educators to facilitate the handling of art materials in elementary classrooms. Methods were given by: experts in recent art publications; manufacturers of school art products; art administrators of Iowa and surrounding states; and elementary classroom teachers in the Des Moines, Iowa, area. Information was gained through current literature, letters of inquiry and personal interview. Suggestions of successful classroom procedures for distributing, collecting and storing art materials have been described. Illustrations of some of the better ideas for storage units have been presented. Purchasable items, available printed information and details for storage units have been included in the appendices. In recent years, many school art products have been improved so that they are easier to use. Some companies have made available valuable aids for using art materials in elementary schools. These range in price from costly to inexpensive. Many resourceful teachers, as those interviewed, have demonstrated that much can be done, with materials that cost little or
nothing, to save time and energy in providing elementary students with vital art experiences.

II. CONCLUSIONS

Art expression is and always has been a basic need of man, therefore, it should be a vital part of every school program. Proper art instruction should begin at the earliest grade, and continue systematically throughout the remaining school years. Since teachers have felt the pressures of updating subject content and adding more requirements to the curriculum, art often has become an insignificant part of the elementary school. However, creative minds are essential to the modern American culture, and it has been found that creativeness through art enriches learning in other areas of study.

Rather than eliminating many creative art activities from the elementary school program, administrators, school supply companies and teachers should concentrate on making these experiences less troublesome and time consuming. One of the major problems seems to be efficient handling of art materials. Observation of successful teaching procedures and useful storage units offer many solutions to this problem. Teachers throughout the nation devise easier ways to distribute, collect and store art materials
This study can only present a few of those methods used in one locality, but it is hoped that these can be of some value to those interested in providing excellent art programs for boys and girls.

III. RECOMMENDATIONS

Unless teachers are adequately prepared to teach art, student activities cannot be the best. Therefore, the following recommendations are proposed by the writer for an art education college course for elementary teachers:

1. Give student-teachers actual experiences with many media suitable for schoolroom use.
2. Stress the creative approach to all art activities.
3. Provide usual school equipment and supplies for student-teachers to use properly.
4. Have each student construct some storage or distribution unit after studying its need.
5. Allow each student-teacher to teach the class so that each will have actual experiences with the preparation and organization of supplies.
6. Keep a notebook of ideas for projects, procedures, classroom organization and formulas.
Administrators must take a major responsibility for the success of the art program. Without their cooperation in providing teachers with suitable classrooms, adequate supplies and equipment, proper time allotments, helpful courses of study, and valuable in-service opportunities, no art program can be successful. The writer suggests that they should:

1. Read current art texts and periodicals and secure them for the school library.
2. Establish a good art philosophy for the teachers to follow.
3. Confer with teachers when planning for new classrooms or remodeling old ones.
4. Buy time-saving art products, adequate in both quantity and quality.
5. Allow some money for individual purchases by each teacher.
6. With self-contained teachers and art specialists, publish a course of study that notes: art principles to be learned each year; child development; yearly areas of study; suggested activities; and classroom organization.
7. Provide an art specialist to visit each self-contained classroom at least once every two weeks.
8. Provide in-service grade-level workshops on school time.
9. Try to set up a well-equipped art-service room if a special art room is not available.
10. Allow at least one hour a week for art activities in all grades.
11. Consider purchasing or constructing portable storage units for art materials as part of standard school equipment.
12. Charge each student an art fee rather than being satisfied with a deficient art program.

Without, well-trained and enthusiastic teachers of art, creative activities cannot benefit each student properly. Teachers should:
1. Read recent art texts and periodicals.
2. Willingly take advantage of in-service opportunities.
3. Explore new media and techniques.
4. Meet informal with small groups of teachers to share ideas for class projects and procedures.
5. Prepare art materials well in advance of their presentation.
6. Place instructions in lesson plans so that no part of a new technique will be forgotten.
7. Enthusiastically motivate students to do their own thinking.
8. Try to develop awareness of the environment in each student.
9. Help students only when they seek assistance.
10. Encourage children and give only positive criticism.
11. Never compare a child's work with the work of another child or adult.
12. Train children to distribute, clean-up and store art materials properly under a teacher's guidance.
13. Protect desks, floors and clothing.
14. Provide individual folders for current art work.
15. Be economical with expendable supplies and constantly look for sources of additional materials.
16. Care for equipment so that it will last and work well.
17. Construct portable storage units that will aid both teacher and students in handling art materials.
18. Re-evaluate methods after each activity to discover ways to improve organization and efficiency.
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BIBLIOGRAPHY

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APPENDIX A

RESPONDENTS

Iowa Art Administrators:

Archie Bauman, Art Education Consultant
Cedar Rapids Public Schools
346 Second Avenue, S. W.
Cedar Rapids, Iowa

Edith Bradbury, Art Supervisor
Waterloo Public Schools
214 High Street
Waterloo, Iowa

William Eells, Art Supervisor
Ottumwa Public Schools
Ottumwa, Iowa

Frank Eighme, Elementary Art Supervisor
Clinton Public Schools
6th Avenue South and Fourth Streets
Clinton, Iowa

Robert Dee Glocke, Art Supervisor
Fairfield Public Schools
Fairfield, Iowa

Saundra Harris, Music Supervisor
Sibley Public Schools
Sibley, Iowa

Ronald Kuhnle, Art Supervisor
Storm Lake Public Schools
621 East Milwaukee
Storm Lake, Iowa

Ruth Mobberly, Supervisor of Art
Des Moines Public Schools
Des Moines, Iowa

Terence Gibson Peacock, Art Supervisor
Rudd - Rockford - Marble Rock Public Schools
Rockford, Iowa
Margaret Catherine Fenderson, Art Supervisor  
Souix City Public Schools  
1221 Pierce Street  
Souix City 5, Iowa

Darl Neil Feterie, Art Consultant  
Keokuk Public Schools  
813 Blondeau  
Keokuk, Iowa

Lars Hollie Sonder, Art Education Supervisor  
Davenport Public Schools  
1001 Harrison Street  
Davenport, Iowa

Frank Wachowiek, Art Department Head  
University School  
Iowa City, Iowa

Art Administrators from Surrounding States.

Rosemary Beymer, Director of Art  
Kansas City Public Schools  
1211 McGee Street  
Kansas City, Missouri

Dr. Frank F. Del Bosco, Art Consultant  
Minneapolis Public Schools  
Minneapolis, Minnesota

Helen Copely Gorden, Director of Art  
Detroit Public Schools  
5057 Woodward  
Detroit, Michigan  
48202

Dr. Marie Larken, Art Supervisor  
St. Louis Public Schools  
5329 Columbia Avenue  
St. Louis 9, Missouri

Marion E. Miller, Director of Art  
Denver Public Schools  
4474 Fourteenth Street  
Denver 2, Colorado
Art product companies.

Binney and Smith, Inc.
380 Madison Avenue
New York 17, New York

Milton Bradley Company
Springfield, Illinois

Weber Costello
Chicago Heights, Illinois

American Art Clay Company
Indianapolis 24, Indiana
Mr. Robert Glocke
Art Supervisor
Fairfield Public Schools
Fairfield, Iowa

Dear Mr. Glocke:

Presently I am conducting a study of methods used by educators to facilitate the handling of art materials in elementary classrooms. Of particular interest are procedures used to ease distribution, collection and storage of items such as brushes, chalk, clay, compasses, crayons, erasers, ink, needles, paint, paper, paste, pencils, pens, rulers, scissors, scraps and yarn. This study will be a partial fulfillment of the requirements for a Master of Science in Education degree at Drake University.

Your reply to the following questions would be greatly appreciated:

1. Do you have available to your teachers any printed information concerning this problem?

2. How might I obtain this information?

Thank you for your cooperation.

Sincerely yours,

Mary Jane Waite
Des Moines elementary classroom teachers.

Kindergarten

Ermal Byam
Marie Conlon
Helge Reseland
Myrtle Van Dyke

Grade 1

Wilma Carlson
Dorothy Meyer
Genevieve Wallace
Nadine Wessels

Grade 2

Leona Credit
Margaret McClintock
Darlene Miller
Mary Storebeck

Grade 3

Reba Canfield
Ruth Collins
Mary Roush
Roberta Waldo
Grade 4
Maxine Boylan
Nellye Kyl

Grade 5
Evelyn Brown
Mildred Dusdieker

Grade 6
Jene Anderson
James Pierson

Art Educators

Frank Wachowiak, Art Department Head
University School
Iowa City, Iowa

Larry Hoffman, Director of Art Education
Des Moines Art Center
Des Moines, Iowa

Ruth Mobberly, Supervisor of Art
Des Moines Public Schools
Des Moines, Iowa

Gertrude Brock, Elementary Art Teacher
Willard School
Des Moines, Iowa

Suzanne Redman, Elementary Art Teacher
Ankeny Public Schools
Ankeny, Iowa

Darlene Cocks, Elementary Art Teacher
West Des Moines Public Schools
West Des Moines, Iowa
ART MATERIALS CHECKLIST

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PROCEDURES

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Wood

Yarn
APPENDIX C

COMMERCIAL PRODUCTS THAT FACILITATE ART ACTIVITIES

Catalogues from the following companies were reviewed and items that seemed to facilitate handling of art supplies in elementary classrooms were listed on the following pages. Numbers assigned to the companies supplying each item were placed on the lines below each item.

1. American Handicrafts Company
   707 Grand Avenue
   Des Moines, Iowa

2. Arts and Crafts Materials Corporation
   321 Park Avenue
   Baltimore 1, Maryland

3. Gager's Handicraft
   1027 Nicollet Avenue
   Minneapolis 3, Minnesota

4. Holley School Supply Co.
   100 East Grand
   Des Moines, Iowa

5. Lettea
   2218 Main Street
   Cedar Falls, Iowa

6. Metropolitan Supply Company
   602-616 Third Street, S. E.
   Cedar Rapids, Iowa

7. Midwest Shop Supplies
   521 Fifth Street
   Sioux City, Iowa

8. Sax Arts and Crafts
   1103 North Third Street
   Milwaukee 3, Wisconsin
Adhesive

Brandywine Dry Stick - concentrated dry spray adhesive, mounts or seals all types of materials permanently. 4

Exec Paste Pen - 5000 dots of clear-drying adhesive, guaranteed 3 years, rubs off clean, all purpose, refills available. 2, 5

Freshie Paste Cup - unbreakable clear flexible plastic, metal screw caps. 5, 8

Paste Sticks - to spread paste, economical, hardwood. 8

Rubber Cement Dispenser - adjustable sliding brush, non-rusting top, amber color to protect from sun rays. 5

Ross School Paste - unbreakable jar, cap built-in plastic applicator. 2, 8

Sanford's Library Paste - flexible plastic spreader. 5

Sanford's Pogo Paste - non-breakable jar of flexible plastic with built-in water-well and nylon brush. 5, 6, 7

Carving

Cres-Store - sculpture material, prepared, add water, mix and cast. 5

Chaselle Carving Kit - stainless keen-edged cutting tools for wood and linoleum, in holder. 2

Hand Tool Kit - 14 basic hand tools in fitted steel carrying case
  Automatic Drill 6" Slip Joint Pliers
  1/4" Standard Screwdriver 1/8" Nail Set
  3" Cabinet Screwdriver 6' Folding Rule
  #2 Phillips Screwdriver Utility Knife with 5 Blades
  16 oz. Hammer Block Plane
  Combination Square Torpedo Level
  3/8" Wood Chisel Tungsten Carbide Hand Sander

Wood Carving Tools - in 6 or 10 piece sets, wooden Case. 2, 7
X-Acto Carving Chest - #5 knife handle, 5 assorted regular in holder, 2, 3" blades, 6 gauges, 4 routers, index side wood chest.

X-Acto Knife Set - 3 knives and 9 assorted blades, wood chest.

X-Acto Wood Carving Set - 6 gauge blades, 1 regular blades, 2, 3" blades, #5 knife handle, takes all blades, on plastic holder, clear plastic top.

Cut Paper

Chaselle Gummed-back Project Paper - sticks on anything, smooth surfaced, takes crayon, paint, ink etc., other side transparent gummed surface that needs only moistening to adhere, in rolls.

Gummed Paper Assortment - sheets 8" x 10", 12 colors.

Paste Brushes - nylon bristles, aluminum ferrule, 3" black enameled handle.

Roll Paper Dispenser - 9" diameter rolls, vertical holds 40" rolls, has weighted base, portable.

Scissor Rack - all black metal, rubber tipped legs, holds 50 pair 4"-6" scissors, handle folds flat.

Smead's Kwik Twist Drill - punch paper, 1/2" of paper at once, cuttings travel into handle, no mess.

Drawing

Board Storage Unit - 6 drawing boards up to 20" x 26", steel, double wall door.

Boston Lead Pointer - short, medium or long points, portable abrasive cup refill.

Char-Kole in Palle Tray box.

Clayrite - No-Roll Crayons.

Cray-ites - color paint in sticks.
Flo-Master Felt Tip Pen.
Flo-Master Felt Tips.
Esterbrook Permanent Markers.
Higgins Artist Tray - aluminum ink bottle tray, may be attached to drawing board.
Higgins Pen Cleaner - removes ink from pens, 6 oz. has retrieving tray.
Invader Assortment of 12 Colored Pencils - in handy easel type box, water soluble.
Marks-A-Lot Oil Base Marker.
Magic Marker.
Marsh Marker Pens - refillable nylon barrel, chrome plated cap, felt points, replaceable points in 5 shapes.
Motif colored pencil assortment in handy, easel box.
Sanford's Felt Tip Markers.
Tru Tone No Roll Crayons.

Modeling
Amaco Claycart - with or without wedging board.
Amaco Dry Clay - in plastic mixing bag.
Amaco Fine Art Semi-Moist Underglaze - in hinged metal box.
Amaco Liquid Self-Glazing Colors - requires only one firing.
Amaco Moist Clay - in polyethylene bag.
Amaco Self-Glazing Engobes.
Amaco Slip Trailer - squeeze bottle, translucent polyethylene 2 oz.
Amaco Underglaze Crayons.
Ceramichrome - one fire glaze.
Chaselle Claytainer - unbreakable polyethylene, lock lid to keep moisture in, won't dent, crack or chip.
Chaselle Mobile Clay Storage Cart - non-corrosive stainless steel, 300 lb. capacity, 5" roller bearing, rubber tired swivel casters.
Della Robbin Miracle Clay - bakes in kitchen oven.
Four-Wheel Dolley - holds claytainers, 20" x 20" with 2" lip, heavy gauge steel, 2" ball bearing casters.
Marblex - self-Hardening clay.
Mexican Pottery Clay - moist, in plastic bag, hardens without firing, red color, non-waterproof.
Mobile Clay Storage Cart - stainless steel, steel bowl, lower storage compartment, heavy duty ball bearing casters.
Pariscraft - open weave fabric impregnated with plaster of paris, no mixing, dries quickly, takes paint well.
Pariscraft Company
P. O. Box 31
New Brunswick, New Jersey
Play-Doh - modeling compound, won't stain, soft when in resealable container, hardens in air or in oven, 3# metal cannister.
R Clay Cart - all steel, 150 lbs., stainless steel bowl, blue enameled steel cover keeps clay moist, non-marking rubber bumper around top edge, roomy lower compartment for storage.
Self-Hardening Clay - plastic clay, instant use, dried pieces resemble fired ware, chemical changes in air decorate in tempera, enamel, lacquer, varnish, shellac, in plastic bag in container, gray, green, terra cotta, 5# package.
Shreddi Mix - modeling mache, mix with water.

Multipurpose Items

Art Supplies Cart - Artcart - heavy duty 16" gauge metal, finished in gray baked enamel, 3 shelves 3" sides to prevent items from rolling off, 2-5" diameter swivel and 2-5" stationery soft rubber wheeled casters.

Chaselle Plastic Mixing Bowls - unbreakable, easy to clean, 5" diameter, 1-3/8" depth.

33 Drawer Storage Cabinet - all steel, smooth working drawers each with 2 adjustable dividers, ideal for storing small items.

Empty Glass Jars - wide mouth, flat screw cap, for uniform storage.

Hook and Clasp - large hook at top to slide over wire, rod or cord, clasp at bottom with extra strong spring and teeth.

Jiffy Cabinet - plastic drawers have three compartments, rubber feet or can be hung on wall.

Mobile Utility Cart - steel construction with melamine plastic top, 2 steel shelves, heavy duty casters.

Pro File Cabinets - completely assembled, of reinforced multi wall construction, 75 envelopes, 17" x 22", permanent suspension rails, detachable cover, flush built-in handles for mobility.

Pro File Envelopes - for filing and storage, 70 lb. MG. strength, hi gleaze northern kraft, 17 x 13 or 17 x 22, laminated handles and hangers, solid suspension bars and fastners for wood or metal, self-adhesive labels.

The Clarkson Company
7211 Desnoyer Street
Kaukauna, Wisconsin

Plastic Gloves - fits all hands, re-usable, disposable.

Roto-Tray - revolving receptacle for small tools within 10" circle, made of lifetime moulded plastic,
mounted on steel base.

Six Drawer Unit for Tool Storage - individual locks, master key, heavy gauge steel, sliding drawers.

Stakmaster Art Work Storage Units - heavy gauge steel, smooth gliding drawers on ball bearing rollers equipped with rear hood and lift compressor in front for protection of contents, drawer stop easily released, additional units can be added and interlocked.

Tote Boxes - sturdy plastic seamless, lightweight, glossy interior resists mildew, alkalis, moisture resistance guards against warping, use as portable or permanent drawers in work tables, benches, ideal storage for classroom work in wall rack or cabinets, metal nameplate.

Trojan Cups - one piece, flat bottom cups, wide top, deep indented bottoms prevent tipping.

Utility Containers - noiseless, sanitary, heavy duty plastic by Rubbermaid, snap-on lids, easy to clean, unaffected by cold and temperature, 10, 20, 32 gal.

Painting

Alabaster Finger Painting Solution - for use with Alabasterine powdered tempers.

Alphacolor Brilliant - semi-moist cakes of opaque tempers in individual plastic containers, lid may be used for water pan, sets in plastic work tray with plastic cover, brush.

Alphacolor Dry Tempers - in reusable plastic container.

Alphacolor Liquid Tempera - 25 colors, in plastic squeeze bottles, will not settle, separate, solidify, 2 oz and 4 oz. have dispenser tops, special thixotropic formula keeps indefinitely, screw off tops in 2 oz, 4 oz, pint, quart, gallon.

Alphacolor Mixing Mediums -
  Printo - o - Leum
  Silk Screen Mix
  Textile Liquid
Alphacolor Palette Pak - each stick in individual compartment in plastic tray.

Alphacolor Watercrayons - sticks in plastic palette tray.

Aluminum Brush Carrier - rustproof hinged cover, spiral spring to hold wet or dry brushes securely.

Aluminum Brush Washer - seamless, leakproof, rustproof cup, 2¼" deep, ¾" diameter, removable spiral holds brush.

Amaco Finger Paint.

Amaco Powdered Tempera - mixes instantly, odorless.

Amco Essel Board - plated metal stand provides various angle adjustments 18 x 24, wood electronically bonded with end splines, lacquered, removable paper and pad holder.

Artiste Watercolor Brushes - brown squirrel hair cupped in a fine point, elastic keeps shape, guaranteed setting, seamless polished rustproof aluminum ferrules crimped securely to handle of medium length, high impact, heat resistant, clear plastic, unaffected by any medium, mouldproofed.

Chaselle Never Drip Paint Dispenser - holds 12 oz. of paint, clear glass, plastic top.

Chaselle Powdered Tempera Mix Shaker - hi impact plastic, 32 oz., pouring spout and screw top.

Chaselle Squeeze Bottle Paint Dispenser - 8 oz. non-slip grip, no drip spout.

Crayola Finger Paint Paper - in sheets.

Crayola Finger Paint Powder - ready for use in metal swivel shaker.

Crestwood Table Easel - 18" x 20", fold flat, handle for carrying, 8 tilt positions.
Delta Watercolor Brush Assortment - good grade camel hair, tin ferrules on lacquered handles, 2 doz. each size 1 - 6, packed in portioned box that separated sizes for easy distribution.

Easel Trays - wooden, attachable to any tripod easel, slide out jar holder, holds brushes, jars, etc.

Finger Paint Trays - for wetting paper, aluminum or plastic.

Flex Flo Dispenser - 12 oz. squeeze bottle, for tempers, translucent plastic, shows color content.

Gross Assortment Genuine Camel Hair Brushes - 6 sizes, colored handles, metal ferrules, in handy acetate container, number and size marked on container.

Konite Molded Tumblers - molded plastic, not subject to crazing and staining.

Linck's Texture Paint Tubes - on any fabric, dries quickly, color fast.

Magi-Paint - ready mix powder finger paint, quick, neat, easy to use, economical.

Plastic Palette Tray, O.D. Craft.

O.D. Craft Watercolor Pens - plastic, lightweight, dent resistant, base eliminates tipping, may be taped to easel or board, stacked on over another, easy to clean.

Paint-Rite Cups - aluminum tray, rust proof, one piece, 6 compartments 5½" x 3-3/4".

Payons - water soluble crayons.

Plastic Squeeze Bottles - 2 oz., replaceable cap.

Plastic Water Cups - white, designed to lay brush at any angle.

Plastic Water Color Mixing Tray - 12 compartment, non-breakable, for mixing paint, easy to clean.

Plastic Water Tray - high impact, white plastic, 10 hole.
Reeves Temperblock - 32 colors, never dries out, cuts down on preparation and clean up, eliminates waste, transparent or opaque. Individually wrapped in transparent film, set includes 6 colors in unbreakable plastic palettes that can be stacked on each other even when wet for quick, neat storage, raised prongs at four corners of palettes lock snugly into grooves in base.

Sanford's Instant Water Colors - draws fine, medium or broad lines, colors can be blended, 12 colors wick tip in plastic stick tube.

Table Easels - aluminum, rubber tipped legs, folds.

Table Easels - folds flat with carrying handle, 8 tilt positions, wood, 18" x 20", also in metal.

Utility Box - strong, roomy container for paint, rags, brushes, etc., attach to tripod easels by wing nuts.

Watercolor Cups - plastic, multiple stacking.
APPENDIX D
FREE EDUCATIONAL INFORMATION AVAILABLE FROM COMPANIES
MANUFACTURING SCHOOL ART SUPPLIES

Weber Costello Art Service Bulletin
Chicago Heights, Illinois

Alphacolor Project Sheet
104 Pastells and Print-O-Laum
106 Color Mingling Composition
201 Finger Painting
203 Silkscreening Simplified
208 Silk Screen Made with Tusche and Glue Method
210 Printing Can Be Fun
211 Paraffin Wax Block Print
212 Finger Painting - Monoprint
213 Sponge, Cardboard and Stick Painting
214 "Automatic" Roller Brayer Painting
401 Alphacolor Brilliants
403 Milk Cartons Brilliants and Imaginations
404 Papier-Mache "How To Make - How To Use"
405 Foil Paper Engraving
501 Crayon Spatter
502 Fun With Watercrayons
602 String Painting
603 Pressed String Paintings
604 Blottos
605 String Blottos

Milton Bradley
Springfield, Massachusetts

Getting the Most Out of Crayons
Modeling With Clay
How to Use Poster Color
Drawing and Art Room Furniture
Adventures in Color
Magic With Water Color
Vivi-tone Poster Color
Color-tone Poster Color
Tru-tone Liquid Tempera
Milton Bradley Paper Trimmers
National Defense Act Educational Brochure
Bull's Eye Construction Paper
Embeco
Welcome to Gameland
Exceptional Children Circular
Denver Public Schools

Department of Art Education

Creative Art in the Elementary Schools
Presents philosophy and scope of the program in
the form of a brief text with pictorial illustra-
tions. $3.00

Grade Level Outline and Picture Strips
Set I: (Kindergarten through Grade 6)
Supplementary to the guides, they are intended
for planning and evaluation. The outlines de-
scribe growth levels of children in relation to
art experiences and list expectancies in devel-
opmental sequences. Two accordion-fold strips
of illustrations, 12 pages in spread, show devel-
opment in picture making and in three-dimen-
sional expression at each grade level. $2.75

How To Do It Series
Set A: Elementary. Printed. 16 Pamphlets: Art
Education in Elementary Schools. Paper Cutting
and Paper Construction, Bulletin Board Arrangements,
Modeling Materials, Papier Mache, Crayon and
Chalk Painting, Color, Design, Drawing and Sketch-
ing, This and That, Carving and Construction,
Textiles, Puppets and Marionettes, Art Apprecia-
tion, Suggestions For the Selection and Evalua-
tion of Art Experiences. $3.00

The foregoing pamphlets supplement the guides, and des-
cribe processes, techniques, tools, and materials for the
activities.

Make checks payable to: Treasurer, School District No. 1
Denver 2, Colorado

Orders should be sent to:
The Office of Business Services
Denver Public Schools
1414 Fourteenth Street
Denver 2, Colorado

Detroit Board of Education

Art Education, A Guide For the Classroom Teacher,
Early Elementary (grades 1-3)
Pay to: Detroit Board of Education $1.00
Send orders to: Mr. Walter Gleeson
                Information Services
                Detroit Board of Education
                5057 Woodward
                Detroit, Michigan
                48202

Minneapolis Public Schools

                Providing Art Experiences For Elementary Children $3.00

Pay to: Minneapolis Public Schools

Send orders to: Mr. Robert Fausch
                Department of Publications
                Minneapolis Public Schools
                Minneapolis, Minnesota
APPENDIX E

DETAILS OF STORAGE UNITS

Figure 3

A. Item: Scissor rack
   Designer: Ruth Mobberly
   Dimensions: 12" x 41/2" X 91/2"
   Materials: 7/16" basswood
   Location: Slinker School, Des Moines, Iowa.

B. Item: Yarn rack
   Designer: Ruth Mobberly
   Dimensions: 18" X 61/2" X 101/2"
   Materials: 13/16" basswood, 1/2" dowels and 4 hinges
   Location: Slinker School, Des Moines, Iowa

C. Item: Eraser rack
   Designer: Bill Loebel
   Dimensions: 63/4" X 51/2" X 11/2"
   Materials: 7/16" basswood and 1/8" aluminum wire
   Location: Slinker School, Des Moines, Iowa

D. Item: Compass rack
   Designer: Bill Loebel
   Dimensions: 63/4" X 31/4" X 3"
   Materials: 7/16" basswood and 13/16" basswood
   Location: Slinker School, Des Moines, Iowa

Figure 4

A. Item: Tote-tray
   Designer: Ruth Mobberly
   Dimensions: 151/2" X 10" X 71/4"
   Materials: 7/16" basswood and 1/2" dowel
   Location: Slinker School, Des Moines, Iowa

B. Item: Tote-tray
   Designer: Melvyx Kyl
   Dimensions: 16" X 8" X 11"
   Materials: 1/2" and 3/4" pine and 1" dowel
   Location: Hillis School, Des Moines, Iowa

C. Item: Puppet rack
   Designer: Mary Jane Weite
   Dimensions: 15/8" X 6" X 40"
   Materials: 7/16" basswood and 13/16" basswood base
   Location: Moore School, Des Moines, Iowa
D. Item: Drying rack  
Designer: Ruth Mobberly  
Dimensions: 40 1/2" x 6" x 41"  
Materials: 7/16" basswood, 13/16" basswood base and 1/2" dowel  
Location: Slinker School, Des Moines, Iowa

Figure 5

A. Item: Tote-tray rack  
Designer: Frank Wachowiak  
Dimensions: each unit, 13 1/4" x 17" x 40"  
Materials: 3/4" pine and plastic tote-trays  
Location: University School, Iowa City, Iowa

B. Item: Drawing board rack  
Designer: Frank Wachowiak  
Dimensions: each unit, 25" x 20" x 36"  
Materials: 3/4" pine and 1/4" composition board  
Location: University School, Iowa City, Iowa

C. Item: All-Purpose Cart  
Designer: Frank Wachowiak  
Dimensions: 36" x 25 1/2" x 38", trays were 14 1/2" x 11" x 2"  
Materials: 3/4" pine, 1/4" composition board and 4 swivel rubber wheels  
Location: University School, Iowa City, Iowa

D. Item: Educart  
Designer: Helga Besaland  
Dimensions: 21" x 11 1/2" x 20 1/2"  
Materials: 1" pine, 4 casters, and chalkboard paint  
Location: Winsor School, Des Moines, Iowa

Figure 6

Blueprints on file:  
Department of Buildings and Grounds  
Des Moines Public Schools  
1800 Grand Avenue  
Des Moines, Iowa