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ABSTRACT

This final report describes and evaluates two 5-day training institutes for art education personnel, held in January and March of 1969. The purpose of these institutes was to improve the participants' ability to (1) identify and use appropriate instructional tools for producing desired behavioral change, (2) evaluate the results and improve the process of behavioral learning, and (3) use a behavioral curriculum model as a guide for research in art education. The report contains a generally favorable evaluation of the institute's program, based on the following sources of evidence: (1) Data gathered from pre- and posttests administered to all participants, (2) data gathered from questionnaires administered to institute instructors, and (3) a final evaluation prepared by the institute evaluator. Recommendations for future action that would affect curriculum design and research activities in art education are included. (JH)

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PRECONFERENCE EDUCATION RESEARCH PROGRAM IN ART EDUCATION

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U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

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Dr. Asahel D. Woodruff, Project Director

The National Art Education Association

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U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

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Contents

Summary

This project is a Preconference Research Institute program initiated by the National Art Education Association (NAEA) and jointly funded by the NAEA and the Bureau of Research, U.S. Office of Education.

The proposal for implementing this Institute program developed out of a similar preconference training program conducted in 1968 in which Institutes were held at each of the four NAEA Regional Conventions. Since 1969 is a National Conference year for NAEA and only one conference was scheduled, this project provided for two Institute sessions. The first session was a program designed to train a small leadership group who in turn served as instructors for the second session and could continue as instructors in the future. The first Institute was held January 20-24, 1969, at the Hotel Utah, Salt Lake City. The second Institute, which was held for a large group of participants (100 persons), was conducted as a Preconference activity held March 25-29, 1969, immediately prior to the National Conference at the Statler Hilton Hotel, New York City.

An initial familiarity with a behavioral model was achieved during the 1968 Institutes. In the 1969 research program, certain higher level competencies were achieved for getting the behavioral model into operation. In addition, the intensity of the Institute sessions prepared a large group of personnel who can conduct other programs similar in content and complexity. To protect the investment made in the 1968 program and to assure greater participant progress, the 1969 program was limited to those personnel who had the previous training experience, and who had the conceptual background for dealing with the unfinished instructional objectives.

The major content areas explored in depth in each of the two Institutes focused on:

1) Instructional tools for producing behavioral change
2) Evaluating the results and improving the process
3) Behavioral curriculum models (as they are related to research projects within a behavioral program

As indicated in the following final project report, it is believed the research program successfully achieved its proposed objectives, and that the extended learning experience provided for the participants was highly beneficial and justified the procedural approach taken by the project staff and planning committee. The training project has had a national impact on art education programs. A survey sent to participants revealed that the learning and behavioral model are being implemented in individual teaching practices and in the development of school system curricula. Participants have been instrumental in initiating and planning similar training for both local and state organizations.

Although specific recommendations for future activities related to this project are included in the text of this report, the two major activities recommended are 1) that the NAEA appoint an ad hoc committee for the purpose of establishing procedures for the collection, organization and dissemination of behavioral units or programs in art education, and 2) that two project proposals be developed similar to the activity developed in the 1969 Institute--one program focusing on methodology of descriptive research and one program focusing on research through a critical study of problems the research has thus far completed in art education. The latter proposal recommended will incorporate research concepts developed by Jason Millman and will emphasize 1) the identification of more useful research approaches or strategies relevant to art education and 2) workshop activities covering knowledge and skills in judging and scaling, analysis of variance, co-variance design, and factor analysis.

Introduction

During the spring, 1968, the National Art Education Association (NAEA) conducted four Preconference Research Institutes on the design of educational concepts. The programs were held immediately preceding the NAEA Regional Conventions with one program provided for each of the four Regional locations. Based on the results of the 1968 Institutes and following the recommendations of the NAEA Research Planning Committee, the research activity described in this report was proposed to the U.S. Office of Education and was supported through a Bureau of Research Grant.

The intent of this research activity was to conduct two intensive training sessions similar to the 1968 Institutes in which the participants would implement the knowledge and competencies previously gained. The content for the 1969 Institute programs was based on the assumption that the participants, having attained competent knowledge and skills developed in the 1968 Research Institutes, would be able to perform at a high rate of progress and could complete the cycle of learning experience necessary to researching and developing relevant materials for instructional programs. Thus, the original Institute goal, to establish a base for objective research in art education, was also the major aim of the 1969 program. The content and materials centered around the analysis of measurable products of art education (visible behaviors) utilizing concepts of behavioral objectives as an organizational system for arriving at teacher competencies and skills necessary to developing sound instructional curriculum. The general objectives of the 1969 Institute were:

To develop the participants' ability to:

1) Prepare the content of a unit for a behavioral objective in a form which will transfer to regular life behavior
2) Provide for measurement of the behavioral results of a unit
3) Plan for research projects within a behavioral program

In order to present a view of the content for the 1969 Institute, it is helpful to see a brief outline of the objectives which the participants were believed to have achieved during the previous 1968 Institute.

Three principal objectives were set up. The participants were to become able to:

1. Identify both behavioral and conceptual objectives for art education.
2. Write behavioral and conceptual objectives for art education in a form which leads directly to unit construction and to instructional processes and materials.
3. Identify and produce the component parts of a unit to make a behavioral or conceptual objective operational for both instruction and evaluation.

The foregoing objectives required the acquisition by the participants of several supporting behaviors, of which five are listed here.

1. Identify and discriminate accurately between the conditions for learning which are required to produce:
    a. A change in the overt behavior of a person
    b. A change in a particular concept in a person
    c. Retention of an item of verbal information
2. Recognize and discriminate between these kinds of process-consequence phenomena:
    a. A human decision-controlled act
    b. An empirical event or process in nature
    c. A consequence produced by a human or an empirical act
    d. A composite act-consequence sequence
3. Recognize and discriminate accurately between:
    a. A behavior (the actual act or event)
    b. A concept (a mental record of something)
    c. An item of verbal information
    d. A topical or other reference to phenomena or knowledge (a title or name, topic, term of reference) whether it is written out in full or merely named or alluded to
4. Identify high-priority behaviors and concepts in human life for art education programs
5. Write a behavioral statement in a form which matches each of these behaviors:
    a. A human decision-controlled act, both linguistic and non-linguistic
    b. An empirical event or process in nature
    c. A composite act-consequence sequence

In the opening session of both the 1969 Instructional Leadership Institute and the Preconference Institute the material covered (above) was briefly reviewed for the purpose of refreshing and clarifying acquired concepts. This period of review was felt to be a great importance since the objectives for the 1969 program were contingent upon and originally included in the instructional plan, and accordingly, are believed to be necessary components for grasping a thorough knowledge of the process for producing behavioral changes, instructional units, or curriculum models.

Since the purpose of this program was to extend and complete the participants' competency, the following three key concepts for making a curriculum transition to behavioral form provided the content basis for material to be explored in depth:

A. Instructional Tools for Producing Behavioral Change
    1. Selecting a project
    2. Identifying required Type II and Type III behaviors
    3. Stating the Type III behaviors as objectives

4. Stating the concepts for Type II behaviors
5. Identifying the media for the concepts and the Type III behaviors

B. Evaluating the Results and Improving the Process

1. The concept of evaluation within a production system designed for behavioral learning
   a. The product of the project as a final test
   b. Component subbehaviors as diagnostic tests of readiness, and also as tests of achievement
   c. Three patterns of testing and use of data:
      a. To determine student achievement
      b. To improve the effectiveness of the program
      c. For research on variables involved in the program
2. Making and administering test (or whatever means of measurement are to be used)
   a. Tests of competence in Type III behaviors
   b. Tests of competence in Type II behaviors
   c. Tests of competence in Type I behaviors

C. The "Behavioral" Curriculum Model

1. Form of the Content

   The curriculum is made up of in-life projects in place of the nonbehavioral subject matter of the traditional curriculum. Subject matter is then reformulated as behaviors and reintroduced in that form into the projects as needed for their successful completion. Subject matter in its behavioral form becomes (a) a verbal expression by the learner of a concept or decision, or (b) a nonverbal execution by the learner of a perceptual act or a decision.

2. Criteria for Scope of Content

   The full curriculum will contain all behaviors that are vital in a full life, including all aspects of life such as social, cultural, heterosexual, economic, political, philosophical, etc.

3. Criteria for Sequence

   Projects will be provided within each area of life in a continuum ranging from tasks of children to tasks of mature adults, with students moving up the continuum by manageable increments.

4. Accommodation for Individuation

   Individuation is achieved by (1) providing multiple alternate

tasks with equivalent learning increments at each point in the curriculum, so individual preferences can be accommodated without sacrificing essential learning, and (2) moving students through the curriculum continuum at their own individual rates.

It is believed that the participants, having focused on these three key concepts in combination with the reading and instructional materials prepared for their study, have achieved the abilities proposed for the general objectives of the Institute (listed on page 3).

The content material outlined was covered by both Institute groups with the Preconference Group (2nd Institute session) receiving a greater in depth experience and practicum time than the Instructional Leadership Group. The Leadership Group, however, received an orientation program designed to prepare them for their responsibilities as teachers of the Preconference Group and subsequent groups. This orientation program consisted of material provided in the following topic outlines:

<u>The Concept of Research in Art Education and the Role of the Institutes in that Concept</u>

MAJOR AIM:

To create conditions for research in art education based on evaluation of the product of the educative process.

TOOLS NEEDED TO IMPLEMENT THE AIM:

A behaviorally oriented program within which various components can be experimentally manipulated, and the effects of the manipulation can be measured.

The specific parts of this program are as follows:

<u>At the total curriculum level</u>:
A scope and sequence curriculum design of behaviorized learner tasks for all years and in all aspects of art education.

<u>At the class level</u>:
A repertoire of tasks within that design, accessible to the teacher for use with students.

<u>At the individual instructional unit level</u>:
The general components of any instructional unit:
1. The intended pattern of operation for the unit
   This includes:
   A. The task the student is to carry out

B. The component learning increments the task is capable of activating
C. The materials (media) for the increments
D. The intended influence system, with directions as needed

2. A set of teaching behaviors for the unit
   A. Behaviors to elicit student response
   B. Behaviors to maintain a working climate
   C. Behaviors to direct attention to (or distract it from) the task

3. A measurement concept for determining student achievement
   A. Measurement of the student's product in his task (Mager, Preparing Instructional Objectives, Chap.2)
   B. Measurement of behaviors exhibited within the task
      Type II behaviors (Overt verbal expressions)
      Type III behaviors (Overt nonverbal expressions)

The Research and Development Concept - A Quality Control System

A concept of education as a production system:

The Components of any production system are:

1. An intended end product (a student with certain behavioral competencies--the "objectives")
2. The object to be shaped to the specified end product (a student entering the system)
3. Materials to be applied to the object being shaped (the behaviorized curriculum)
4. The process(es) of applying the materials (learning tasks, response-eliciting devices, climate variables, and verbal communication processes)

A concept of quality control

Control of the quality of the output through alterations in the treatment based on measurement of the end product and analysis of the source of any deficiencies in the end product

The elements in quality control of an educational treatment

1. An instructional program operating, within which experimentation can be carried on (as described above)
2. A selected variable for manipulation, which may be any of the following:
   A. The student's task
   B. The component learning increments within the task
   C. The media (art materials and behaviors)
   D. The teacher's influence system
   E. The classroom climate variables
   F. The verbal interaction variables
   G. The task operation pattern variables

3. Pre and postinstructional measurement of the student
4. A feedback operation for determining and improving on program quality

Steps for Inducting Art Educators into the Behavioral Approach to Instruction and Research

I. Comprehension of the research model being developed

- A. Product measurement as the research base
- B. Behavior as the product
- C. The behavior production system
- D. The measurement-evaluation-feedback loop in the system

II. Comprehension of

- A. The behavioral position, and
- B. Its implications for
  1. Tasks
  2. Subject matter reformulation
  3. Learner role
  4. Teacher role

III. Use of the behavioral model for the Institutes

When the Institute is conducted on a behavioral model itself, two values result: (1) Participants can regard the Institute as an illustration of what they are expected to do in their own teaching after the Institute. (2) The participants' behaviors can be shaped at least partially within the Institute itself, in place of giving them a body of verbal information which would have little effect on their behavior after the Institute.

This procedure requires that the Institute staff be familiar with the following aspects of planning and conducting the program:

- A. The use of behavioral objectives:
  1) Carrier projects and tasks
  2) Learning increments within those projects and tasks
- B. Sequencing of the content for cumulative achievement
- C. Keeping participants engaged in behavioral responses which permit shaping to occur

IV. Media

Participants will find it difficult to visualize their field in behavioral form without examples of the several kinds of art behaviors involved in the whole field. A taxonomy of the objects and events that constitute the field, in a form which permits the participant easily to combine those substances with the various

types of behavioral response, can overcome this difficulty.

Provision of models and examples greatly facilitates the formation of concepts by the participants and provides patterns to help them start on the production of units of instruction. These media will enter into the operation as adjuncts to a flowing set of activities and must therefore be ready in advance and immediately accessible in operational form.

V. In-operation reshaping of the Institute

The Institute team finds it necessary to meet frequently to assess participant response and progress, and to make useful modifications in the program on the basis of feedback.

VI. Development of competence in preparing instructional episodes

VII. Development of competence in measurement and evaluation
- A. Presentation of concepts of measurement and evaluation
- B. Practicum in specifying behavioral patterns
- C. Closing on evaluation concepts as they apply to research and quality control

Methods

Participants were selected as follows:

In order to achieve the greatest amount of progress within brief preconference activities, one Institute was held for a small selected leadership group who in turn served as the instructional staff for the second larger group of participants. Since 1969 is a National Conference year, it was possible to hold only one Preconference Institute for a large group. The first Institute was held approximately two months prior to the second Institute, thus giving the instructional group a period of time to absorb the research concepts, to engage in practicum experience, and to refine carrier projects or art behaviors as instructional models for the second Institute program.

The Leadership Instructional Group was selected on the basis of individual performance at the 1968 Institutes and by recommendation from the Planning Group Committee, each representing the four NAEA Regional areas and thereby assuring that participants were selected from various areas of the country. There were 18 participants in this group.

Letters of invitation and application forms were sent to all participants at the 1968 Institutes (except for those who were able to attend the Leadership Institute), of the 175 possible responses, 115 persons applied for the Institute. There were approximately 15 persons who could not attend, either for personal reasons or because of conflicts in their teaching schedules. There were 100 participants in attendance at the Preconference Institute. (Samples of applicant forms for both groups of participants are included in the Appendix D.)

The Operational Pattern: Institute time and experiences

The two Institutes were held at the following times and locations:

First Institute--Instructional Leadership Group--Jan. 20-24, 1969
Hotel Utah, Salt Lake City
Second Institute--NAEA National Preconference Group--March 25-29, 1969, Statler Hilton Hotel, New York City

The two programs were held for 5 days each and each provided over 35 hours of instructional and learning time. The program consisted of formal instruction by the project staff alternated with small group (10 participants per group) and individual working sessions, with greater time devoted to individual learning activity.

It was originally planned by the project staff to provide equal time for formal presentations and for practicum experience. This schedule was maintained for the Leadership Institute, first because of the

smaller ratio of project staff to the Leadership participants and second, because of the need for direct instruction and clarification of concepts by Drs. Woodruff, Clark and Davis (project staff members). However, during the second Institute approximately 5/6 of the time was allotted to practicum experience in which the project staff and instructional leaders worked individually with participants.

Planning and Evaluation Meetings

An initial planning meeting was held December 16-17, 1968, in Washington, D.C., to organize and finalize preparations for the Institute programs. Following the Institute activities, a final evaluation and report meeting was held May 27-28, at the O'Hare Inn, Chicago, Illinois. Procedures for the Institutes, the findings, and recommendations for this report were formulated by the Planning Group. Members serving in this capacity, as well as all project staff and instructional leaders are listed in the Appendix A.

Results and Findings

Results

The report of the results and success of this Institute program is based primarily on three sources of evidence. These are 1) the data and analysis gained from the pre and post tests administered to all participants in continuous attendance at both the Leadership and the Preconference Institutes. 2) the data gained from the questionnaires developed by the Institute evaluator (Dr. Silverman) and which were completed by the Leadership instructors on the final day of the Preconference program, and 3) the final evaluation of both Institute programs prepared by Dr. Silverman. Following are the results obtained from these sources.

Pre and Post tests--Summary of Evaluations (prepared by Dr. Clark)

In those instances where participants did not complete either or both tests, or where the reliability of their performance was in question, scores are not included in the final computation of data. Therefore, the number of test scores do not reflect the actual number of persons who participated in the program activities. Further, it can be noted that the number of test scores indicated for the Leadership Institute is greater than the number of participants who served as instructors for the Preconference Institute. This difference is due to the fact that several of the planning group members and persons who could not attend the Preconference program took part in the Leadership program. They did not necessarily serve as instructors. It is also significant to observe that the gains in the following statistics appear small in light of the amount of gain one might expect. This phenomenon is attributed to three factors:

1. The pre and post test items were based on conceptual content.
2. Since the pre and post tests were constructed with the assumption that a greater balance between formal instruction and practicum experience would be maintained, the gains do not reflect the emphasis ultimately placed on practicum activities. Approximately 5/6 of the program time was devoted to practicum sessions.
3. Correspondingly, 1/6 of the gains in performance are shown informally but not in statistical data.

Summary of Evaluations

Research Leadership Institute	Number of Participants	Pretest Mean	Posttest Mean	t	df	p
	22	16.32	18.32	3.92	21	<.001
Preconference Research Institute	64	16.06	17.16	2.79	63	<.01

The data show:

In both Institutes, the mean improvement (between pretest and post) was statistically significant; this improvement was more pronounced for the Leadership Institute than for the Preconference Institute.

Interpretation:

(1) The improvement was probably due more to a greater understanding of the instructional materials and increased skill in their application than to confounding factors such as carry-over effects from the pretest to the posttest.

(2) What might have accounted for greater improvement among participants of the Leadership Institute than among those of the Preconference Institute?

(a) Those in the Leadership Institute--perhaps anticipating their roles as instructors in a later Institute--might have worked more diligently under closer supervision than those in the Preconference Institute.

(b) Participants in the Preconference Institute--perhaps as a result of finding themselves in relatively isolated groups with new instructors--may not have progressed as rapidly as those in the Leadership Institute. (That the instructors were not necessarily a more "select" group is indicated by equivalence of pretest scores for both groups.)

(A sample of the Pre and Post test form is included, Appendix B.)

Group Leader Responses To Silverman Evaluation From Preconference Institute - New York City

I. Attendance in the sub groups was reported between 90% and 95% on the average. Three groups indicated 70% to 80%.

II. Very uniformly the highest achievement was in item 1, where almost 100% were said to have completed Worksheets 1 and 2. At a slightly lower level of achievement were Worksheets 3 and 4, around 90%. Less conspicuous achievement was reported for a general evaluation plan, the table of specifications, and a valid evaluation instrument; but with little exception these were above 50%, varying from there to 90-95%.

III. Most groups reported adequate mastery (about 90-100% success) of differentiating between the three types of behaviors and identifying products relevant for regular life behavior.

IV. The small group activity program was rated almost uniformly as the most successful aspect of the Institute, with early division into groups.

The major sources of less-than-desired success were attributed to the physical facilities, which prevented adequate periodic total group meetings; over-crowding; inability to hear in the large group; and lack of time to finish. Some participants mentioned lack of adequate exemplars.

Suggested follow-up activities are as follows:

1. Assemble a small group of productive people to produce substantial sets of in-life behaviors, concept packages and skill packages, and complete project models to serve as prototypes.

2. Concentrated efforts by a selected team to move as far as possible into the identification of content for an extensive if not relatively complete art education curriculum.

3. State Institutes conducted by our trained cadre for disseminating knowledge of this approach over the country.

4. Establishment of some critiquing groups around the country who could react to materials produced by various production teams and send them back for follow-up work.

5. Specific effort to get individuals started on experimental research in classrooms by manipulating independent variables and measuring results.

6. The establishment of some kind of printed medium of exchange, both for keeping up to date on improvements in technology and for distributing and exchanging instructional materials produced.

7. Development of handbook-type materials which can be used to assist new participants to become familiar with this approach and to work with it at home.

(A sample questionnaire form for these responses is included in Appendix C.)

Evaluator's Report - Research Institute in Art Education
Salt Lake City 1/20-1/24, 1969
New York City 3/25-3/29, 1969
(prepared by Ronald H. Silverman)

Since this Institute has tended to focus upon the utilization of analytical and retrospective and introspective modes of behavior, it would seem appropriate to approach the problem of evaluation from this same position of emphasis. Therefore, my evaluation will be concerned, if not explicitly then by implication, with (1) identifying and characterizing observed instances of behavior from which inferences can be drawn about the extent to which the objectives of the Institute have been achieved; (2) listing those properties which I believe are critical in forming an estimate of the relative value of the Institute; and (3) speculating about the import of this enterprise for our field, viewed retrospectively, in relation to the evolution of art education, and introspectively, in terms of where the field is at the present time.

The Institute's Relevance for Research

This Institute has been sponsored by the National Art Education Association, and funded by the U.S. Office of Education, for the purpose of establishing a base for objective research in the field of art education. However, a casual observer of the materials and proceedings associated with this Institute might conclude that it had little to do with research in art education, and that, instead, was far more related to building art curriculum.

Such a conclusion would reflect both a very limited interpretation of research and a rather myopic view of how curricula are formulated. Consequently, to discuss the success of this Institute in terms of its original goal of establishing a base for research in art education, it would appear to be an essential first step to identify two things: how the Institute is indeed relevant to research and what are the stated delimitations of this particular Institute.

I should like to discuss the limits first, within the framework of some of the phenomena we have encountered. For instance, I would contend that the product to be produced as a consequence of participating in this Institute is to develop the analytical competency required to behaviorize the art curriculum. And, further, I would say that some of the characteristics this product should include would be abilities to do the following: describe the critical properties and make appropriate statements about the behavior employed in making and examining art; differentiate between concepts and referents for concepts; recognize the essential nature of a carrier project; distinguish between cognitive

processes and observable behavior; and utilize an evaluation plan for estimating and analyzing the outcomes of instructional procedures.

It needs to be stated, at least parenthetically, that anyone who believes that the product of this Institute was to be something else, for example finding ways for forwarding perceptual awareness, defining the content of aesthetic education, or explicating the nature and development of creative behavior, would be disappointed in and probably confused by its content and processes.

The Institute's relevance for research is related to the abilities previously listed. When one decides what it is that he wants to accomplish, or stated in more operational terms, what he wants his students to get out of an experience in art education, and then proceeds to clarify the nature of the sought for outcome, and delineates and implements instructional and evaluation procedures which are relevant to its attainment, he is indeed engaged in research. And the quality of this research and the extent to which findings are generalizable are merely a function of the extent to which rigorous controls have been imposed to account for intervening variables.

Behaviorizing the art curriculum is just another way for saying that by using a systems approach the teacher becomes a hypothesis maker and a hypothesis tester.

In my view, acquiring a research orientation is both the great power and the great promise of this analytical program in terms of its potential for art education.

It is powerful because the art teacher who is also a researcher can continue to examine the efficacy of his views and procedures and, thereby, confront his students with art learning experiences which are truly relevant to their wants and needs. And the promise of the analytical approach is that through its use the teacher, individually, and the profession, collectively, can objectively examine assumptions, goals, and procedures, which can, of course, eventuate in the constant improvement of both what we are trying to accomplish and how we go about doing it.

Evaluating Phase One

Clarifying the issue to which this Institute has been directed and then briefly analyzing its relevance to research brings us to an examination of its success in achieving its stated objectives. Because there were actually two training sessions, the following interim evaluation was made of the possible ways experiences acquired in the first--the teacher training phase--could be utilized to insure the success of the second session.

One impression formed as the content of the first phase began to unfold, and which was confirmed in the second phase, was that we were being presented with rather complex materials for dealing with rather simple behaviors. As we moved more deeply into the materials, however, it became apparent that Dr. Woodruff's formulations were not the source of complexity. It was rather, (1) a reflection of how little thought has been devoted to defining the content and learning objectives of our field, and (2) the lack of familiarity with the language and manner in which materials had been conceptualized.

In retrospect, it is interesting to note that this had not been the case in the three day Preconference session held in the spring of 1968 which sought to develop abilities to behaviorize the art curriculum. Evidently, it was a relatively simple task to make behavioral statements, and many conferees were able to produce very adequate statements after only three days of instruction.

However, after a few days of this Institute, the full impact of the complexity of the teaching act became apparent, and what had heretofore been considered simple projects assumed new dimensions of complexity. This occurred for two reasons: the necessity to focus on the learner and his interest and desires, and the emergence of the importance of concepts in developing worthwhile learning units. The significance of these two events will be dealt with more thoroughly in the discussion of the values of this Institute.

Another impression which continued to plague me as I observed the proceedings of the first phase of this Institute was that a few of the participants lacked the requisite perceptual and conceptual referents to enable them to use the system being presented by Dr. Woodruff in a truly effective manner. When they were asked to produce behavioral statements like those which were produced last spring, there was no problem because this called for a relatively simple set of competencies. But attempting to behaviorize a unit which could meaningfully involve the student in the learning task turned out to be a far more complex enterprise. And those few participants, even though they may have read about and heard an exposition of the system for accomplishing such an end, were thoroughly stymied.

In brief, they had difficulty in making sufficient sense out of the materials to enable them to think adequately about and subsequently produce a behaviorized unit. It was recommended that a good deal of this confusion could be avoided in New York if the following steps were taken:

First, whenever and wherever it is possible to do so, examples of how the various aspects of the system can be employed should be provided. Further, such examples must be related to art phenomena.

Second, models of completed carrier units dealing with art education need to be provided. This should serve to accomplish two things: the New York participants would have a clearer notion of how a unit is constructed, and they would also have concrete evidence of the value of making the considerable effort required to teach with an emphasis upon behavior.

In addition to providing examples of how units are constructed, this procedure should allow those who exchange student roles for teacher roles to think through more thoroughly and to practice what they will be attempting to teach in New York. This must be done in order to insure that the many powerful ideas embodied in Dr. Woodruff's formulations will not be dissipated or diluted by a lack of correct instruction or positive reinforcement in the small group sessions planned for New York.

Third, the teaching teams who will be working in New York should not be formed on the basis of personal choice, as has been proposed. Since it is evident that all of our participants have not assimilated the materials of the Institute to the same degree, teams should be formed so that levels of competency are adequately distributed. This can be accomplished if the staff will use the data available to them--pre-post test performance and the ability to produce a worthwhile carrier unit--and assign team members accordingly.

Fourth, the New York participants should be moved into a practicum session where they will grapple with the task of formulating carrier projects as soon as possible. In this evaluator's view, there is no short-cut way to deal with the task of behaviorizing the curriculum. And, merely reading and hearing about the task before one is aware of what it actually entails will be of limited value.

Fifth, the group of participants in the first phase worked very well together as students. They were very supportive of one another, and the atmosphere was conducive to getting on with the task at hand. Comments from this group relating to Drs. Woodruff's, Clark's and Davis' materials, were very complimentary. It would not be overstating the case to add that many participants were genuinely enthusiastic about the whole enterprise.

These types of reactions also need to be generated within the New York group. The nature of their receptivity to the content of the Institute would depend largely upon the way they were dealt with by those who were trained at Salt Lake City. Patience and guidance, and sticking to the task at hand without digressing into irrelevant esoteric areas are characteristics which needed to be displayed. The teacher-trainees were more than aware of the problems involved in using the systems approach to curriculum building. As a consequence, they should be prepared to truly empathize with those they would be instructing in New York.

Sixth, in relation to the foregoing, something needs to be said about the purpose underlying the instructional approaches of Drs. Woodruff and Clark. They attempted to help us understand the reasons behind their particular formulations. This often required very involved explanations, especially in the reading materials. I was surprised that I had not been able to find any negative reactions to these extensive explanations.

Nevertheless, I believe what I have inferred is that their purpose needs to be made explicit in order to be prepared for questions which could very well arise in New York. One might ask, "Why do we need all of this material; why not show us what to do and let us get on with it?"

To deal with such questions, the analogy of the automobile might be employed. "Show me how to drive and let me do it." Fine! But what happens when the car bogs down. If you don't know what makes the car go, you are stuck. If you know something about what makes it run, perhaps you can identify why it is not running, which is, of course, the first step to getting it back into working order. But as educational leaders we cannot even be content with being able to identify why a systems-developed behavioral curriculum is not working. It is often our responsibility to design and build curricula, which means we must have competencies analogous to those possessed by the automotive engineer. We need to have a thorough understanding of the dynamics underlying a behavioral curriculum, if we are to produce materials that will not be subject to rattles and break-downs.

Drs. Woodruff and Clark have provided an opportunity to acquire an understanding of these dynamics. And we must make every effort to understand and deal with them. There is no alternative if we are to function as autonomous creative individuals. Autonomy can only be achieved when we have both the knowledge and skill to manipulate with great efficiency the variety of inputs with which we are confronted. Otherwise, we have but one recourse open to us: to utilize someone else's conception of what art curricula should be. And some other person's ideas can probably never be totally relevant to our own idiosyncratic situations.

Evaluating Phase Two

Estimates of the extent to which the stated objectives of this Institute were achieved were based upon personal impressions and the responses to a one page questionnaire filled out by the teachers of our small group sessions held in New York.

The impression that several participants were unable to deal adequately with the materials of the Institute while most appeared to have a strong foothold was supported in the responses provided by our teachers. The fifteen out of our fifteen teachers who returned our questionnaire estimated that 80% or more of the participants with whom they

worked could adequately distinguish between covert and overt behaviors and had adequately completed worksheets one through four. The term "adequate" implies that our teachers believe the participant can use acquired skills and understandings in his professional work.

They also reported that they believed 50% or more developed an adequate general evaluation plan; eleven teachers indicated that 70% or more produced an adequate table of specifications; and nine reported that valid measurement instruments were constructed by 70% or more of our participants. And further, thirteen teachers estimated that 70% or more were able to adequately identify products that have a relevance for "regular life behaviors."

These figures, coupled with my additional impression that our participants reacted very favorably to the materials and insights provided by Drs. Woodruff and Clark, led to the conclusion that this Institute has been instrumental in furthering the ability of most of its participants to prepare the content of a unit for a behavioral objective in a form which will transfer to regular life behavior as well as provide for measurement of the behavioral results of a unit. These are two of the stated goals of this Institute. And one can assume that the third goal --developing abilities to plan for research projects within a behavioral program-- was also attained at least partially, since many participants demonstrated that they possess the potential to carry out such projects.

From a review of our teachers' comments, one might conclude that some of the events that contributed to this positive assessment were the opportunity to carefully analyze and develop sample but actual carrier units and evaluative programs, as well as the necessity to be highly specific and concrete about the content of the visual arts.

The one major shortcoming of this Institute, in this evaluator's opinion, and evidently in the view of many of our teachers and participants, was the lack of relevant, extensive, and diversified examples of behaviorized art curricula. These models would have served to demonstrate alternative uses of Dr. Woodruff's system and, thereby, minimize confusion, and also enable our participants to become engaged sooner in grappling with ideational materials, as well as products such as bowls and placemats. I have no doubt, however, that the logistical problems of providing such models overpowered the good intentions of our Institute staff, who are as cognizant of this shortcoming as anyone.

Some of the minor problems appeared to be related to the nature of facilities, group teachers who were not always clear about how the system should be utilized, and a lack of concern for such morale maintaining functions as providing water and making proper introductions. Concerns for the magnitude of the task evidently overshadowed concerns for the morale of the group. In my view, however, this is as it should

In my view, however, this is as it should be. After all, focusing on the task of developing analytical competencies was what this Institute was all about.

Values for Art Education

Now let us turn to the possible values this Institute could have for the field of art education.

There can be no doubt that these past five days, coupled with the series of three day Institutes held last spring, have provided those in attendance with an unusual opportunity to acquire both the knowledge and skill to deal with our field with greater precision.

A term such as "precision" has mechanistic connotations as do "machine" and "engineering," words often employed to describe aspects of the system we have been attempting to understand and use. Since these words have affective loadings which could potentially generate a great deal of hostility among some of our colleagues, we must be certain not to allow the medium--the words we use--to get in the way of transmitting our message--that a systems approach is a valuable device for thinking about and accomplishing important goals in art education. We need to emphasize that through its use we will be able to do a much better job of organizing, for educative purposes, the objects, events, processes, and concepts with which we work. In this sense, we are doing what the artist does as he attempts to organize the wide variety of stimuli available to him--but for expressive purposes.

Humanizing education and making it more relevant to the learner are, of course, the most valuable outcomes of using the systems approach advocated by Dr. Woodruff. His insistence upon developing life-serving objectives which will actively involve the learner in acquiring important understandings and competencies as he pursues the satisfactions of his "wants" is of great importance to the field, especially because of its present state of development.

Anyone who has been keeping up with the "cutting-edge" of art education is certainly aware that it is no longer conceived of solely as a means for developing expressive skills. Other competencies and areas of knowledge are also being considered. Talking and reading about art and critically examining aesthetic phenomena are included as relevant behaviors to be utilized in the art class.

An instance of this movement toward developing a more comprehensive definition of art education is embodied in the thinking of the committee recently established by the California State Board of Education to develop a framework for art education for the state of California.

In their initial statement, the committee--composed of three public school art supervisors, an elementary teacher, and a professor of art education--concluded that art education should be conceived of in terms of four areas of involvement: the productive, the critical, the cultural-historical, and the philosophical, which would include dealing with conflicting and alternative theories about the nature of aesthetic interactions.

This type of proposal differs considerably from art education as it is and has been typically practiced with its overwhelming emphasis upon the making of art and the rote learning of the elements and principles of visual organization.

On the basis of a surface response to it and other avant-garde projects and programs, one might conclude that art education in the future will become far more dependent upon verbal materials. In fact, one can view the schools generally and conclude that verbalizing, classifying, memorizing, and computing are the dominant behaviors. The danger exists that art education, in seeking to become respectable, will join the pack and become essentially a verbal and passive enterprise.

The central thrust of Dr. Woodruff's proposal is absolutely opposed to permitting this to occur. He insists that life-serving objectives be the driving purposes behind the procedures initiated in our schools and that students must be actively involved in educating themselves.

The overemphasis upon verbalism and passive learning which is characteristic of the traditional teacher-centered classroom should not become the means whereby cultural, historical, and critical concerns relevant to the visual arts are introduced to children and youth. A systems approach provides us with a powerful alternative for accomplishing this goal while enabling the learner to fulfill his aspirations.

The carrier task, itself, is designed to serve as the means for carrying the interests of the learner and those aspects of the subject, both cognitive and perceptual-motor, which he must master to accomplish his task.

To the extent that art educators can develop, and art teachers will employ, significant life-serving learning experiences, the field will be able to resist the tendency to become more verbal, passive and abstract.

What has been said here is not to be construed as denying the efficacy of verbalization. But it is essential to realize that developing verbal skills is not the central purpose of or major reason for art education.

This discussion of verbalization is not to be confused with the role of concepts in art education. Directing our attention to the necessary explication of relevant concepts is another of the important values of a systems approach. It enables us to focus upon the conceptual aspects of the objects, procedures, events, and consequences of art education--something which is currently not widely practiced. And it is this kind of focus that makes art worthy of being taught in our schools. A recent statement by the Educational Policies Commission of the National Education Association proclaimed that the central purpose of the schools is the development of intellectual power. An emphasis upon how and what to think about the visual arts will contribute to the attainment of this purpose.

One of the persistent dilemmas we have had to live with over the years is the inability to get people not involved in the arts to understand the values of and necessity for art education. We must find ways to demonstrate what art education can really accomplish. And such proof must be in a form that will have meaning for a population which is, by and large, aesthetically illiterate. Needless to say, we also need devices that will provide valid information about the extent to which students have been altered by our practices.

There is no doubt that the approach to behaviorizing evaluation procedures advocated by Dr. Clark represents a powerful tool for making explicit what it is that we have accomplished. It can also provide us with the means for examining the entire teaching cycle.

Conclusion

Conscientiously utilizing Dr. Clark's formulations and the system Dr. Woodruff has developed may well result in bringing more art to more people. If this is to be accomplished, then what has been initiated in this Institute must be thoroughly digested, and many behaviorized art programs must emerge which will serve to demonstrate to the profession the values of a systems approach.

I am certain that such an accomplishment would be the best possible way to express our gratitude to Ashael Woodruff and Cecil Clark for the many hours invested on behalf of the future of art education. It will also serve to validate the support of this Institute by the National Art Education Association and the U.S. Office of Education.

If we continue to behaviorize art education, it is my considered opinion that the expenditures of time, energy, and funds allotted to this Institute may well prove to be one of the best investments the profession has ever made.

Conclusions of Planning Committee:

The results of two Institute programs, reveal several observations and outcomes.

1) That the decision to extend the learning experience of the 1969 Institute participants was beneficial not only to the participants' achievement, but supplied evidence of their motivation and commitment to research concepts presented by the project.

2) In light of the complexity, knowledge and skills inherent in developing research behaviors, a followup Preconference Institute was necessary to the protection of our commitment and investment made in the 1968 Institute program.

3) The data gained from participant pre and post tests, and from evaluations made by the instructional staff, indicate that a significant improvement was made in conceptual understanding and in performance tasks.

4) Increased time scheduled for small group activity, particularly where participants worked individually and directly with an instructor, contributed significantly toward comprehension and mastery in differentiating between types of behaviors and in producing viable carrier project models.

5) It is concluded that the degree of success achieved by this research activity justifies the time, effort and funds expended. The degree to which the activity has an impact on the future growth in art education programs depends on the participants' effectiveness in implementing similar learning situations within their local institutions and state systems. Much of this success has been evidenced through reports from participants who have implemented the training experience in their teaching practices. Many participants have been instrumental in initiating and planning similar training programs for local and state organizations. In part, their effectiveness can be increased when provisions are made for producing and disseminating a body of project models to serve as prototypes for art education curriculum.

Recommendations:

Based on the results of this project activity and the impact it has had on current art education practices, these next steps are recommended:

1. The maintenance and continuation of the goals which the Research Institute project has achieved requires:
   a. a pool or extensive body of usable (behaviorized) objectives and program units
   b. an ad hoc committee, composed of Research Planning Group members and the instructional staff, who can set up a commission and/or develop a pool of objectives
   c. the committee should make a survey of participants to find out what they are able and willing to do toward development of behaviorized objectives
   d. the committee be charged to implement what has been achieved so far, they should determine the procedure and organizational structure for such a program, and they should determine whether a proposal for support funds is needed
   e. personnel who are developing objectives or projects but who are not necessarily teaching them. They can: 1) produce exemplary types, 2) produce systematic diagrams of what components are, and 3) disseminate material already produced.
   f. personnel recommended to serve on this committee--such as
      Del Dace - Ladue School District, St. Louis, Missouri
      Perry Ragouzis - Colorado State University
      Gordon Kensler - University of Oregon
2. A commission should be appointed to review the NAEA goals. Accordingly, the Research Planning Group is writing a letter to the NAEA Board of Directors recommending that the Board take a broad view of the Association, and to consider projecting the direction of the field and the possibility of a systems approach in establishing this direction.
3. There should be a continuation of similar kinds of preconference research activities implementing behavioral systems but which emphasize affective (attitudinal) outcomes and/or methodology for descriptive research approaches. Two courses of action are suggested:
   A. A project should be proposed for training in the methodology characteristic of descriptive research in which the focus is on simple, efficient and practical research techniques.
   B. A second project should be proposed for training in research techniques based on Jason Millman's approach.

APPENDIX A

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APPENDIX B

National Art Education Association Workshop, 1969
Instructional Assessment

Match the following by placing the appropriate number on the appropriate line:

1. (1) A human decision-controlled act
   (2) An empirical event or process in nature
   (3) A consequence produced by a human or empirical act
   (4) A composite act-consequence sequence

_____Blooming of a flower
_____Painting a landscape
_____Smog
_____Mixing colors
_____Practice in drawing; smoother lines produced
_____Rain

2. (1) Behavior
   (2) Concept
   (3) Item of verbal information
   (4) Topic

_____1700 boys participated
_____Mental image
_____The date of the war as 1941
_____Molding a piece of clay
_____The Civil War
_____Mediating variable

The remainder of the questions are multiple choice. Read through all the alternatives for a question before making a selection. Always try to select the most appropriate or most correct alternative. Select only one and circle it.

3. According to your reading, what types of projects should predominate a life-internship curricular pattern?
   a. Conceptual rather than verbal projects
   b. Want-serving production projects
   c. Any projects whose primary function is to produce some form of learning
   d. There are no predominate types of projects; all should be equally present

4. Why is it important to be able to identify the four critical aspects of learning (learning task, pattern of eliciting student responses, etc.) in any intentional learning situation?
   a. So that potential teaching behaviors in that situation can be identified
   b. To make certain that the learning situation in question is, in fact, a true learning situation
   c. So that one can observe the student's learning sequence
   d. So that the carrier projects will not conflict with the learning tasks

5. Suppose you are interested in researching a behaviorally oriented art curriculum. In the research enterprise, one's task is that of identifying relationships between single variables or sets of variables. If your selected dependent variable is "a change in the students art behaviors," which one of the following would be the most profitable independent variable?
   a. Any behavioral performance as indicated by some assessment instrument
   b. Any type II and III (but not I) behaviors
   c. The four critical aspects of learning (learning task, pattern of eliciting student responses, etc.)
   d. In general, any want-satisfying, motivating, in-life behavior
   e. Sex, I.Q., age, and other similar variables

6. How can traditional "school" behaviors be differentiated from daily, "in-life" behaviors?
   a. School behaviors generally have high transfer value while life behaviors are rather low in transfer value
   b. School behaviors result from direct experience with subject matter (e.g. history) while life behaviors arise from direct experience with objects and events
   c. School behaviors are mosaic in nature while life behaviors are mainly found in small bits and pieces
   d. School behaviors result mainly from want satisfaction while life behaviors typically arise from a cognitive imbalance in the organism

7. According to your reading, any given curriculum can be identified as being in one or more of the following forms: (1) Experiential and perceptual, (2) Conceptual, (3) Symbolic and verbal, (4) Behavioral. If one defines education as "the production of competence in the essentials of complete living," then which of the following forms would be essential to the curriculum?
   a. Behavioral
   b. Conceptual and behavioral
   c. Experiential and perceptual, conceptual, behavioral
   d. They would all be essential

8. When an academic subject (e.g. history) is "behaviorized" what happens to it?
   a. Academic behaviors are translated into in-life behaviors
   b. Specific content (e.g. Events leading up to the Civil War) becomes more applicable to the use of history in everyday life
   c. It is stated as a set of measurable activities
   d. Overt processes (e.g. appreciation) are translated into covert behaviors

9. What is a carrier project?
   a. Any feedback activity in the quality control loop
   b. Any adjustive behavior
   c. Any in-life project which allows the learner to attain a want-satisfying result
   d. Any project which permits small learning increments
   e. Any project which has as its end the production of learning

10. Suppose you plan to formulate some instruction on the basis of your component task analysis of some desired behavior. What would be two components of any desired behavior?
   a. Covert and overt components
   b. Concepts and instrumental competencies
   c. Identifying and matching components
   d. Content and behavior components

11. What is the major difference between a behavioral objective and a conceptual objective?
   a. Conceptual objectives cannot be stated as in-life behaviors, whereas behavioral objectives are almost always stated as such.
   b. Conceptual objectives are typically inclusive in scope, whereas behavioral objectives are usually small and piecemeal in nature.
   c. Because it is in a covert form, a conceptual objective can never be stated as a set of observable behaviors
   d. A conceptual objective is not usually stated in a behavioral (visible) form (but could be).

12. If, when working in a quality control system (for an art education program), the measurement and evaluation component indicates undesirable aspects of the finished product (student), in what component would the first change most likely need to occur?
    a. Instruction or treatment component
    b. Outcome or objectives component
    c. Learner component
    d. Measurement and evaluation component
    e. Research component

13. Why is it impossible to conduct research on an art curriculum for which there are no identifiable behavioral outcomes?
    a. Measurement of a given program is possible, but more than one program would be necessary for research purposes.
    b. Research implies a comparison; no comparisons are possible when there are no criteria (outcomes) for evaluating the "effectiveness" of one program against the other.
    c. One does not research programs, but rather outcomes of programs.
    d. Since one does, in fact, research programs rather than outcomes, the identification of behavioral outcomes is really not necessary.

14. How does one measure a covert behavior?
    a. Through the selection and use of a well-validated measuring instrument
    b. By measuring its qualities
    c. By translating it into an overt behavior
    d. By making it specific enough to be behavioral

15. What is the purpose of a Table of Specifications?
    a. It assists the evaluator in selecting the appropriate type of testing instruments
    b. It presents specifications of the measuring instrument to be designed for a given set of objectives
    c. It insures a variety of types of test instruments
    d. It insures a balanced sampling of desirable behaviors and content in the measurement situation

16. According to your reading, which of the following represents the most compelling reasons for a curriculum taken directly from the out-of-school lives of people? Out-of-school curriculum tasks--as opposed to academic tasks--
    a. contain greater motivation and show greater transfer
    b. are more readily learned, and retained longer
    c. are more easily taught
    d. require fewer carrier projects

17. In a behavioral curriculum, into what form would the familiar subject matter fields (e.g. history) be translated?
    a. Into a set of independent and dependent variables
    b. Into the four critical aspects of learning
    c. Into a natural phenomenal form (environmental objects and events)
    d. Into a conceptual form in which the referents can be indirectly experienced

APPENDIX C

NAEA PRECONFERENCE RESEARCH TRAINING PROGRAM
Teacher report to the Evaluator

STATLER HOTEL Room no.____ No. of participants____ Teacher_____

Please provide us with your best and most candid estimate when responding to the following questions. Please return your completed form to the evaluator in person, or to his hotel mail box (1605), prior to 6:00 p.m. this evening, Friday, March 28.

Check the appropriate column	100	95 to 90	90 to 80	80 to 70	70 to 50	less than 50
I. What percent of your group attended all of your sessions?_____						
II. What percent of your group accomplished the following: (the term "adequate" implies you believe the individual has the ability to use skills and understandings on the job)						
1. Completed worksheets 1 and 2 adequately_____						
2. Completed worksheets 3 and 4 adequately_____						
3. Developed an adequate general evaluation plan_____						
4. Produced an adequate table of specifications_____						
5. Constructed a valid evaluation (measurement) instrument_____						
III. What percent of your group are able to adequately:						
6. Differentiate between Type I, II, and III behaviors_____						
7. Identify products that have a relevance for "regular life behaviors_____						

IV. Based upon the insights you have acquired in our three Institutes, what do you believe is the:

8. most successful aspect of this Institute _____

_____

9. least successful aspect of this Institute _____

_____

10. most logical next step to be taken toward "behaviorizing" the art curriculum _____

_____

APPENDIX D

NATIONAL ART EDUCATION ASSOCIATION

1969 PRECONFERENCE RESEARCH TRAINING INSTITUTE APPLICATION

1st Program Participants

I would like to participate in the 1969 Research Institute Program.

Yes_____ No_____

I will attend both the first program, January 20-24 (as a participant), and the second program, March 25-29 (as a training instructor).

_____ OR

I will not be able to participate in the first program, but will attend the second training program, March 25-29.

_____

If I am accepted for either or both programs, I will attend all the sessions for which I am registered (each program is 5 days).

I would like hotel reservations made:

Yes_____ No_____ Salt Lake City on Jan._____through Jan._____

(single)_____ (double)_____

Yes_____ No_____ New York City on March_____through_____.
(confirmation cards will be sent.)

(single)_____ (double)_____

PLEASE PRINT _____
(name)

_____
(position or institution)

_____
(address)

_____
(city) (state) (zip)

RETURN THIS FORM TO: H. James Marshall
National Art Education
1201 Sixteenth Street, N.W.
Washington, D.C. 20036

NATIONAL ART EDUCATION ASSOCIATION
1969 PRECONFERENCE RESEARCH TRAINING INSTITUTE APPLICATION

I would like to participate in the 1969 Research Institute Program being held March 25-29. Yes_____ No_____

My attendance at this Research Institute is with the understanding that 1) I was a participant at one of the Regional Institutes held in the Spring, 1968, and 2) that I am committed to participate in the 1969 Institute for the entire 5 day program.

I would like a hotel reservation made (single_____ double_____)

for arrival in New York City on March_____ through_____.
(please specify dates)

(Hotel reservation cards will be sent to applicants for confirming arrival and departure times.)

PLEASE PRINT _____
(name)

_____
(position or institution)

_____
(address)

_____
(city) (state) (zip)

Name and address of Administrator requesting letter for released time:

_____ _____
(name) (position)

_____
(address)

_____
(city) (state) (zip)

RETURN THIS FORM TO:

H. James Marshall
National Art Education Association
1201 Sixteenth Street, N.W.
Washington, D.C. 20036