ART IN THE LIFE OF THE SECONDARY
SCHOOL PUPIL

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I. INTRODUCTION

Art in the public schools was one of the first victims of the economic depression which began in 1929. When it was found to be necessary to lower the expenditures in education, those in control immediately began looking about in their school systems for things which they could eliminate. Art was the first school subject to go; however this is not wholly the fault of the school authorities. The taxpayer, too, is to blame, and back of both of these, education itself is really at fault. Education has failed to show the value of art in life. We have been busy training students so that they might make a living. We have staggered blindly with "Business First" as our motto, letting our aesthetic sense go hungry. We have been crying for leisure, never giving a thought as to how we should use it after we obtained it, and now that leisure has been forced upon us in so many cases, we find ourselves lacking. Those who have been studying conditions in the country, and who are able to see where we have fallen short, realize the need for more appreciation of the aesthetics.

Ex-president Hoover's Research Committee in its report, Recent Social Trends, says, "From a social point of view, as contrasted with art for art's sake, the problem of art, like
that of religion and recreation, turns today on its service to man in his inner adjustment to an environment which shifts and changes with unexampled rapidity. Art appears to be one of the great forces which stand between maladjusted man and mental breakdown, bringing him comfort, serenity and joy. ... The school may well grow into an effective agency for the development of a nation-wide basis of an elementary consciousness of beauty, and a more general understanding of the place of art in industry and commerce may prove to have great potentialities.\(^1\)

It is useless to believe that every child can become a skilled producer in art, and so, for many years art appreciation has been the goal in schools. This appreciation has been set forth through attempting to give each child some skill, and by requiring some amount of production. There can be no objection to this method, but the kind of material required and the way in which the requirements are exacted may be questioned.

In too many cases art has been merely a school subject, wholly isolated from everyday life. It could be made very useful, much more interesting and less difficult to teach if it were correlated more closely with the art about us. No one can deny the fact that we are in contact with art everyday, no matter what our vocation may be. In our homes, in our dress, on the streets and in industry, art is all about us.

Although art, as it is taught today, may have its faults, it is far better to have it in its present form than it is to leave it out altogether. Some knowledge of art is necessary in

\(^1\)Research Committee, "Recent Social Trends," New York Times, (February 26, 1933).
order to insure for people a richer life. One purpose of this study is to show that it could be made inviting to so many more students if it were more closely connected with life experiences.

Many people have been working on art tests, but only a few of the tests have been satisfactory enough to be standardized and published. One of the first art tests to be used was the freehand drawing scale developed by Thorndike in 1913. Up to this time, teachers of art had merely passed their judgment on the pupils work and based the grade or estimate entirely upon this judging.

The field of art, perhaps more than any other, is handicapped by the idea that its objectives, methods and outcomes are unknown to the average human being and that they cannot be measured or evaluated.

Objective tests in art so often require plates along with other printed matter and this makes them very costly. Despite the fact that they can be used over and over again, the initial cost limits the demand.

Although there are few people who have worked on the standardization of tests in this field, several tests have been produced since Thorndike introduced his drawing scale. A short description of some of these does not seem out of place at this point.

The **Kline-Carey Drawing Scale**\(^2\) used for grading and evaluating drawings consists of four parts. (1) The subject is asked to draw a house, and the scale includes nineteen

samples for judging purposes. (2) The drawing of a rabbit is required and sixteen samples are presented here. (3) A boy running is the drawing for this part with sixteen sample drawings. (4) A brush drawing of a tree is requested of the subject, and this is judged by nineteen sample drawings. These scales are fairly satisfactory as far as they go, but they represent only a very small part of the content of the average art course, and, of course, furnish testing only for skill and not for appreciation.

The Lewerenz Tests in Fundamental Abilities of Visual Art have made the first serious and significant contribution to the measurement of fundamental abilities in art. This test skill in drawing and includes recognition of proportion, originality of line drawing, observation of light and shade, knowledge of subject matter, visual memory of proportion, analysis of cylindrical perspective, analysis of parallel perspective, analysis of angular perspective and recognition of color. The test can be used from the third grade to the adult level and it includes a very excellent manual concerning standardization, administration, and interpretation. It has been validated partly by the success of students who showed talent on the test.

The Meier-Seashore Art Judgment Test is quite different from the first ones mentioned. It is purely an appreciation test. This test consists of a collection of one hundred twenty-five series of two designs or pictures each. These

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3 A. S. Lewerenz, Tests in Fundamental Abilities of Visual Art, (Los Angeles, California: Research Service Co.).

4 N. C. Meier and C. E. Seashore, Art Judgment Test, Bureau of Educational Research and Service, University of Iowa, Iowa City, Ia.
two designs or pictures are very nearly alike, however they differ in one respect, the difference being stated in each case on the pupils recording sheet. The pupil is instructed to compare the two pictures in each pair, noting the changed portion and then choosing the one which is most pleasing to him. The student is to base his judgment entirely upon the difference pointed out to him.

The McAdory Art Test is the most recent and probably the most adequate art test which has been standardized. It is an art appreciation test of a very fine type because it not only includes appreciation of all the principles of art, but it presents these principles as they are seen in everyday life, in our clothing, in our homes and all about us. It consists of seventy-two plates, each plate presenting four variations of a single subject by means of illustrations designated A, B, C, and D. The testee is to examine the four illustrations carefully and select his first, second, third, and fourth choices and record them on the sheet provided for this purpose.

It is the McAdory test which has served as a suggestion while preparing the test for this study. An attempt has been made to include problems of appreciation in everyday art contacts. Instead of using the plates, which for this purpose would be a costly as well as unnecessary method, a test of photographs and drawings, has been prepared which includes actual materials whenever possible. Although the McAdory test is vastly more inclusive than the one which has been prepared,

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5Margaret McAdory, McAdory Art Test, Bureau of Publications, Teachers College, Columbia University, New York, 1929.
the advantage of being able to present to the subjects the real objects in some cases, should be considered, for these will bring about more accurate and spontaneous responses. Probably the test recording sheets which follow, and the description of the test which is given in the following chapter will do more to make this point clear.
ART APPRECIATION TEST

PART ONE

Check the names of painters and sculptors in the following list:


NAME OF SCHOOL ..............................................................
GRADE IN SCHOOL.  8.  9.  10.  11.  12.  ...
AGE ..............................................................
DID YOU HAVE ART IN THE GRADES? ..............................................................
DID YOU HAVE ART IN HIGH SCHOOL? ..............................................................
HAVE YOU EVER BEEN TO AN ART EXHIBIT? HOW MANY?  

PART ONE

Check the names of painters and sculptors in the following list:
PART TWO

1. a ( ). b ( ).
2. a ( ). b ( ).
3. a ( ). b ( ).
4. a ( ). b ( ).
5. a ( ). b ( ).
6. a ( ). b ( ).
7. a ( ). b ( ).
8. a ( ). b ( ).
9. a ( ). b ( ).
10. a ( ). b ( ).
11. a ( ). b ( ).

12. a ( ). b ( ).
13. a ( ). b ( ).
14. a ( ). b ( ).
15. a ( ). b ( ).
16. a ( ). b ( ).
17. a ( ). b ( ).
18. a ( ). b ( ).
19. a ( ). b ( ).
20. a ( ). b ( ).
21. a ( ). b ( ).
22. a ( ). b ( ).

PART THREE

yes.......... no.......... 1. Do you think that photographs of friends and members of the family should be used as wall decorations in a living room?

yes.......... no.......... 2. Do pictures show up well on bright figured wall paper?

yes.......... no.......... 3. Should the color of the ceiling be darker than the side walls of any room?

yes.......... no.......... 4. Should the floor or floor covering be darker than the walls?

yes.......... no.......... 5. If you had a small cottage would you buy heavy overstuffed furniture for the living room?

yes.......... no.......... 6. A room is on the south where it gets a great deal of sunlight; would red rugs and draperies be the best choice?
yes........... no...........  7. A kitchen is usually very warm because of the heat from the stove; would green be a good color to use in great quantities in this room?

yes........... no...........  8. If you wanted to use a bright figured rug and bright figured draperies would you select a figured wall paper?

yes........... no...........  9. Would you use a great number of white washed rocks in decorating your front yard now that rock gardens are quite popular?

yes........... no........... 10. If you were landscaping a small front yard would you use many evergreen trees?

yes........... no........... 11. Should a person who is of a heavy build wear bright striped sweaters?

yes........... no........... 12. Would a person with red hair look well in bright green?

yes........... no........... 13. If you wanted to look well dressed would you wear a great deal of jewelry?

yes........... no........... 14. Should a round faced person part his hair in the middle?

yes........... no........... 15. Does the size of a house have any effect upon the type of architecture that one would choose?

yes........... no........... 16. Are pictures of dead fish and ducks good wall decorations for the dining room?

yes........... no........... 17. Do statues of famous people make good decorations for the home?

yes........... no........... 18. Does color in the home have any effect upon one's health and disposition?
II. PROCEDURE

A. Description of the Test

By glancing through the set of test recording sheets preceding this chapter, one can see that the test is divided into three parts, and for general information there is a short introductory questionnaire. The first three items of the preliminary questions are self explanatory and need no further comment. The fourth question includes art in the grades, only when a special period was set aside for it, and question five was to be answered by the number of high school art courses taken by the pupil. Questions six and seven concern any art exhibits excepting those of students work. This information was necessary in order to classify the subjects and to make the results of the test more valuable.

Part I of the test has nothing to do with art principles, but in order to bring about appreciation of literature much is taught concerning the men who have written; and in history the student is expected to know the generals and statesmen, so in order that art be appreciated more fully it is necessary that some of the historical names be used for a background.

The pupils were asked to check ten out of the twenty-four names listed in Part I. By limiting the number to be checked the chance of gain by guessing was lessened.
Part II of the test consists of twenty-two sets of two plates each. These plates were labeled "a" and "b" and in each case the subjects were told to check the one which seemed to answer best the question which accompanied each set of plates. The plates were all large placards and in some cases actual samples of wall paper, drapery materials, etc. were used.

Since it is impossible to include a copy of this section of the test with each copy of this dissertation because of the size of the plates, verbal descriptions and explanations along with some small reproductions will have to be used instead.

The first five sets of plates have to do with basic art principles and the elements of art such as, line arrangement, balance, form and color, and the question which accompanies each of these sets is, "Which is the more pleasing to you, a or b?" These plates are shown in figures 1, 2, 3, 4, and 5.
Set six, figure 6, consists of the two patterns of wall paper labeled "a" and "b," and the sample of drapery material. The question pertaining to these plates is, "If you had draperies like this in your living room, which of these wall papers would you choose to go with them?"
Set seven includes the two samples of wall paper shown in figure 7. The question for these plates is, "Which would be the better wall paper for a girl's bedroom, a or b?"

Eight consists of a colored photograph of the interior of a living room. The wall paper is of a large distinct figure, the floor coverings plain green and gold and the draperies of plain green velvet. This plate is labeled "a" and the accompanying plate "b" is a sample of large figured drapery material. The question is, "If you were buying new draperies for this room, would you buy plain green again, or would you change to this figured material?"

Item nine consists of colored photographs of two dining rooms, one very poor in color scheme and in design and the other very correct in color and design. The subjects are asked which is more pleasing to them.
Item ten is the same as nine only pictures of hallways are substituted for the dining rooms.

Two rug designs and a piece of green drapery material make up item eleven. One rug is poor in design and is carried out in a color scheme of rose and blue, while the other is more pleasing in design and is in tones of green and rose. The question is, "Which rug would you choose if you had draperies like this sample?"

Item twelve concerns a choice between kitchen linoleums such as the ones shown in figures 8 and 9.

"Which would make the better school dress?" is the question which follows the showing of figures 10 and 11, and "Which dress would be better for the tall slender girl?" is the question which accompanies figures 12 and 13.

Item fifteen includes a plate of a young woman in a long flame colored afternoon dress and accompanying this are plates of two sets of accessories. The subjects are to choose the most appropriate set of accessories for the dress shown.

For sixteen a picture of a young man in a tan suit is shown. Following this, two plates of accessories including shirt, tie, handkerchief, hose and shoes are shown. One plate includes accessories in a poor combination of blues and black, while the other set includes a pleasing combination of tans and browns. The subjects are asked to choose the set of accessories which would be best suited to the tan suit shown.
Figures 14 and 15 make up the plates for seventeen and the subjects are asked which outfit would be the better for a man of a heavy build if he wished to appear taller and more slender.

Eighteen and nineteen which are represented by figures 16 and 17, and 18 and 19 accompany the question "Which is the more pleasing scheme of landscaping?"
Eleven and twenty-one have to do with architecture, particularly concerns balance and the setting of the house on the lot. The first consists of two medium sized homes, one on an elevated position and the other on the secondstory. The latter consists of two houses, each having seven rooms. One house is of the compact type while the other is the sprawling type of architecture. The latter is known to be the most suitable for the average city lot.

Figure 19

Item twenty-two consists of a portrait of John D. Rockefeller and of a colored photograph of a young man. The subjects are asked which is the better portrait, the point being to find whether they know the difference between a portrait and a photograph.

Part III is a series of eighteen questions concerning various principles of art as they are applied to things about us. They are all true and false questions, referring to the test recording sheet when confusion is necessary.

By giving one point for each item in the test, the total perfect score is 100, twenty being given for the first part, forty-four for the second part and thirty-six for the third part.

Figure 19

The test was given in seven schools and in grades eight, nine, ten, eleven and twelve. Four of the schools were city schools and three were township schools. Two were junior
Items twenty and twenty-one have to do with archi-
tecture. Twenty concerns balance and twenty-one concerns
suitability of architectural type to an average town lot.
The first consists of two plates showing modern medium sized
homes, one poor in balance and the other correct. The latter
consists of two houses, each having seven rooms. One house
is of the compact type while the other is the rambling type
of architecture. The subject is asked which would be the
most suitable for the average city lot.

Item twenty-two consists of a portrait of John D.
Rockefeller and of a colored photograph of a young man. The
subjects are asked which is the better portrait, the point
being to find whether they know the difference between a
portrait and a photograph.

Part III is a series of eighteen questions concerning
various principles of art as they are applied to things about
us. They are all true and false questions and by referring
to the test recording sheets, no further explanation is
necessary.

By giving two points for each item in the test, the
total perfect score is 100, twenty being given for the first
part, forty-four for the second part and thirty-six for the
third part.

The test was given in seven schools and in grades eight,
nine, ten, eleven and twelve. Four of the schools were city
schools and three were township schools. Two were junior
high schools, two were senior high schools, one was an eight year elementary and two were consolidated schools including grades seven to twelve. Four hundred and forty-one pupils were tested.

The time for giving the test is approximately thirty-five minutes, but after the papers were turned in ten or fifteen minutes were devoted to the answering of questions concerning the test. All results of the test will be found in the chapter following.
III. RESULTS AND DISCUSSION

A. Treatment

The results of the test have been classified into the following groups:

1. Results according to schools.
2. Results based on year of student in school.
3. Results based on ages of subjects.
4. Results based on previous art training.
   a. Elementary art training.
   b. Secondary art training.
5. Results shown by dividing the subjects into a group which had attended one or more art exhibits and a group which had attended no art exhibits. Note: This idea grew from the supposition that the attending of art exhibits might be a means of indicating personal interest in art and the type of art environment.
6. General points of interest found while tabulating the results.

Out of the 441 students tested there were only two perfect scores in Part I, one in Part II and one in Part III. There were no perfect total scores, the highest total being 94.
There were ten papers showing 0 for Part I, but no 0 scores were found on Parts II and III. The lowest score on Part II was 14 out of a possible 44. Out of a possible 36, the lowest score on Part III was 16. This information along with the fact that the total average for Part III was of a higher percentage of the highest possible score than the total average of Part II shows that the worded questions of Part III were less difficult than the choice of plates in Part II. The lowest total score found among the entire group tested was 34. This made the score range 34 to 94. All of the bar graphs used are based on this range.

1. Comparing City and Township Schools. There were three township schools and four city schools in which testing was done. All five grades, eight, nine, ten, eleven and twelve were tested in both the city and the township. Out of the range of 60 points the city schools were 17 per cent higher than the township schools as shown by Figure 20. The difference in means in favor of city schools is 10.6662 and this difference is completely reliable. See Table I appendix page 44. Only a few townships offer art in the elementary schools and none of the township schools used for this research work offered art courses in the secondary schools. The elementary township art teaching was all done by the regular classroom teacher and not by a specially trained instructor, while all the city schools had special art teachers. Inaccessibility as far as art exhibits are con-
Figure 20. Showing difference between city and township schools.
cerned, and home environment in the rural districts also
helped to make up the difference in the averages for city and
township schools.

2. **Comparisons of Scores Made by the 5 Grades Tested.**
Figure 21 shows that grades eight and ten averaged much the
same while grade nine fell below. This was probably caused
by the fact that none of the ninth grade students who were
tested were taking art at the time, while both in the eighth
grade and tenth grade some of the pupils were studying art.
The great jump in the eleventh and twelfth years was brought
about by the fact that juniors and seniors in high school are
allowed more periods for elective subjects, and since art is
classed as an elective these two years had more students who
had had one or more courses in secondary art. Then, too,
advanced work in history and literature in these two years
gave opportunity for the process of elimination to act more
fully in Part I of the test. The fact that there was no ad-
vancement from grade eight to ten shows that maturity without
art training had little effect upon the total average in the
test. This is also shown by Figure 22, which gives the scores
according to the ages of the subjects.

3. **Comparison of Scores According to Ages of Students
Tested.** Ages 12 to 16 which make up most of the student
group included in grades eight through ten, show little vari-
ation in total scores, while ages 17 and 18 make a jump of
16 per cent and 18 per cent of the total range. This again
Figure 21. Showing range of averages in the five grades tested.
Figure 22. Showing variations in scores according to age.
is caused by the elective art subjects and the history and literature courses in the last two years of the secondary schools. Little or no difference can be attributed to maturity of the subjects because of the fact that so little variation is shown in the age range from 12 to 16 years.

4. Comparing Students With and Without Elementary Art Training. One of the most outstanding points shown by the results of the test is the great effect elementary or grade school art work has on the subject's ability to judge and appreciate art problems. Figure 23 shows this plainly. The difference in means in favor of those having had elementary art is 13.8124, and this difference is completely reliable. See Table II appendix p. 45. A difference of 22.4 in total scores, or 37 per cent of the total score range is found when comparing those students who had some time set aside for art in the grades with those students who had had no early art training. Early training brings about an early awakening to art and produces an interest that is difficult to obtain in an adult.

5. Comparing Students With and Without Secondary Art Training. The affect of secondary art training is not as great as that of elementary training, however, by looking at Figure 24 one can see that one or more terms of special art training has as great an effect as five years maturity and other training. The difference in means in favor of twelfth year students not having art compared with eighth year
Figure 23. Showing effect of elementary art training.
Figure 24. Showing effect of secondary art training.
students is 6.7581. The difference in favor of twelfth year students having had art compared with twelfth year students not having art is 8.0645, and these differences are completely reliable. See Tables III and IV appendix pages 46, 47. Students in the twelfth year who had had art were as far above the twelfth year students who had no secondary art courses as those twelfth year students without special training were above the average eighth grade student.

The fact that secondary art did not have as great an effect upon total scores as did elementary art training might be accounted for by the fact that secondary art courses call for more specialized art work and training in skill. Such courses as pottery, poster and lettering and leather craft teach particular art principles, but as they are taught at present they emphasize skill more than general appreciation of the art problems of everyday life.

6. Comparing Students Who Had With Those Who Had not Attended Art Exhibits. An interesting result is shown in Figure 25. The difference in favor of those students who had attended one or more art exhibits is 12.8476, and this difference is completely reliable. See Table V appendix page 48. A difference of 15 points or 25 per cent of the total score range is shown between students who had attended no art exhibits and those who had attended one or more art exhibits. This wide range is partly due to the fact that 73 per cent of those who had attended art exhibits were
Figure 25. Showing effect of students attending one or more art exhibits.
students from city schools and had the advantage of more art training. The difference cannot all be attributed to that however, for in dividing those who had had no art training into two groups, those who had attended and those who had not attended art exhibits, there was still a difference of 13 per cent of the total score range. This shows that outside interest and an environment which would lead children to art exhibits also affects the amount of appreciation and judgment.

Minor points which were found while grading the test sheets furnished some of the most interesting bits of information. In one of the city schools the principal is very interested in art and has made several trips to the larger galleries of Europe and has brought back pictures for the school. He has had moving pictures and talks on art for assembly programs. The students from this school ranked 8 per cent higher than students from another city school which offered the same amount of art training.

In one of the township schools the test was given in an English class. The instructor for this class had had a great deal of art training and whenever it was possible she correlated art with the English. Prints from reproduction of the old masters and interesting drawings which had to do with literature were used as wall decorations in the room. This class tested 7 per cent higher than any other township group of the same school year.
William Shakespeare was checked as one of the painters or sculptors on 221 of the papers. Although the Shakespeare plays are considered too far advanced for junior high school pupils, many of the senior high schools offer them in the advanced English courses. Shakespearean plays have been produced on the screen and stage and it seems that the name would have been connected with literature for a greater per cent than showed on the test.

Our own Indiana artist, Daniel Garber, was missed by practically everyone, while Leonardo da Vinci, Michael Angelo and Rembrandt were known by 69 per cent of those tested. Eleventh and twelfth year students who had the advantage of advanced history and literature did much better on Part I than did the students of junior high school level, because of the fact that many of the names in the list are prominent in literature and history.

7. Comparing Percentages in the Three Parts of Test. Part I averaged the lowest, Part II next and Part III the highest when comparing the average of each part with the highest possible score for that part. This is clearly shown in Figure 26. Other variations shown might be mentioned, but since the number tested was small, finer details can not be high in validity.
Figure 26. Showing comparison of scores in the three parts of the test.
IV. SUMMARY AND CONCLUSIONS

A. Types of Art Training

In taking the information from the results shown in Chapter III, one might come to several conclusions concerning art as it is taught in the schools today.

The list of findings is as follows:

1. City school pupils made higher scores on the test than did the pupils of the township schools.
2. Maturity had little effect on scores.
3. Elementary school art training effected total scores very noticeably.
4. Secondary school art training has a marked effect upon scores.
5. The attending of one or more art exhibits tended to raise the total score considerably.
6. Students are interested in art.
7. School environment effected scores markedly.

The fact that the average of total scores ran low might be attributed to the type of test, however, the wide range and distribution of scores, in all three parts as well as in
the total scores, help to prove the validity of the test.

The lack of art work in the schools and the type of training given, probably are the two greatest reasons for the low average. In three schools out of the seven no special art teachers were employed. Only when art happened to be of enough interest to the classroom teacher so that she took it upon herself to correlate it with other subjects were the pupils of these schools given a taste of art.

In many of the schools where art is classed as a separate subject, the art teachers are not well qualified, for permits are given in the special subjects to people having a minimum amount of training in the special fields, because these subjects have not been considered of enough importance to demand carefully trained teachers. Poor art teaching is worse than none.

The fact that mean (or median) scores in Part I were lower than in the other two parts shows that historically important names in art are not brought before the student very often. Literary and political history are taught in every high school and a few of the important names in art history could very well be correlated with these phases of history, for art has always been closely connected with government as well as with literature, especially until the church and state were separated.

Many times the excuse is made that the average child is not interested in art and that the expense of employing
special teachers is too great when it only benefits a select few. This is an erroneous statement, for one of the most striking things perceived while giving the test was the vital interest in art which the students showed. In every group tested there were many who could not wait until all the recording sheets were handed in before they began asking questions concerning points brought out on the test. If students are not interested in art, it is not their fault, but the fault of the type of art lesson given. Young people have to see a connection between the art they are studying and everyday life. There must be a value attached to it before they will show interest. General art appreciation for the whole group will do more for the field of art than will the special training for a few. People do not turn away from art because they are not interested, they turn away because they are afraid. Judd in his *Psychology of Secondary Education* explains this very well. He says, "The reason why most people stop developing in drawing at the second or third grade level is one of the important lessons to be learned from educational psychology. As soon as a child is able to make a schematic drawing, he begins to make comparisons of his sketches with the objects which they are supposed to represent. He becomes conscious of the inadequacy of the drawing. Sometimes he finds that his drawings are subject to the scrutiny of those about him and
that his efforts are criticized as inadequate or even ridiculous. As a result of one or the other of these occurrences, the child is overwhelmed by the discovery that his drawings are crude. He forthwith becomes discouraged and gives up entirely the effort to perfect his representations. The discouragement following social or personal criticism becomes a crucial turning-point in the child's development. In many other spheres of mental effort discouragement is overcome because the child's elders insist that he shall try again in spite of his defective performances. In the case of handwriting, for example, society will not let the child stop trying to improve. In acquiring language and also in learning the skills which are demanded in industry, the individual is controlled by powerful social incentives, which lead him to overcome discouragements. In drawing these social compulsions are for the most part lacking. Society in the United States thinks of the art of drawing as a form of play, as a dispensable luxury. When the child becomes discouraged, society acquiesces in his withdrawal from further effort, and as a result, most mature people in this nation exhibit a type of ability in drawing which belongs to the second or third grade.¹

If the people could only be made to see that art does not merely consist in the ability to draw and that those who do not produce drawings and paintings contribute a great deal to the development of art by their enjoyment of the productions of the specialists, this fear and discouragement which Judd refers to would disappear. Instead of teaching drawing only, more appreciation, picture study, and art history should be taught, so that all students whether gifted or not would have an equal chance in art.

If it is not deemed possible to provide special art teachers for every school, art does not need to be entirely neglected. The opportunity for correlating it with other subjects is great. A little art history brought in with political history would add interest as well as broaden the student. The connection between art and literature is close and the two could be correlated very easily. For example, in studying the drama, no one can deny that stage settings and costume design play important parts.

If art is treated only through correlation, changes will have to be made in teacher training courses. More time will have to be allowed for art training in the teachers colleges. Art classes will have to be required of every student and art correlation will have to be shown in all general methods courses. In most states one year of art training is required everyone preparing for the teaching profession, however, Indiana does not have this requirement.
B. Other Studies Which Could be Made in this Field

While the test for this study was being given in the various schools, two students were found who apparently were color blind. This presents another problem for the art teacher and it would be interesting to know just how extensive color blindness is among school children. Dr. Shinobu Ishihara, a Japanese army officer, has perfected one of the finest tests in this field, and with the aid of this test an interesting study could be made.

Another problem which presented itself during the making of this study was the use of art in the teaching of the feeble minded. It is known that in many of the schools for feeble minded, art classes play a great part, but no study has been made concerning the benefits derived by the dull child from the study of art. This study would have to be carried on over a long period of time, but any information gained would be invaluable.

A field which has been investigated, but in which no conclusions have been reached is that of the correlation of art ability and general intelligence. There are still great possibilities for research on this subject.

The effect of art appreciation training upon interest in various other subjects would be a very difficult problem with which to work, but if any points could be gained they

\[1\] Dr. Shinobu Ishihara, *Color Perception Test*, (Chicago: C. H. Stoelting Co.).
would help very much to further the plea for more art appreciation courses in the school.

C. Conclusions

Art training given in the schools does help students to appreciate the art about them, especially when special art teachers are employed to do the teaching.

When special teachers are not employed, art can easily be correlated with other subjects in the school.

Art is interesting to the majority of students. It is fear and not lack of interest that causes them to withdraw at the thought of art.

Many of the art problems that are left to be solved would furnish material for research work. It is a broad field, for it in some way affects everyone. In considering the people of secondary school age and the importance of art, we have only to look at some of the statements in the introduction of a new book entitled Art Appreciation by Collins and Riley, to see the value of art. They say, "Perhaps no boy or girl now in school will be the genius who appears once in a century. Perhaps none will become the professional artist who designs cathedrals and skyscrapers, or even the commercial artist who is paid high prices for his posters or magazine covers. Comparatively few enter the field of creative art. We are all, however, consumers of art, and are therefore artists in the field of appreciation. Every consumer of art
products should know how to recognize the art values as well as the practical values of the things he purchases, and how to distinguish the thing that is good from one that is mediocre. The well designed article gives better value than one that is poorly designed because its beauty gives it a lasting worth. Our power to judge and choose what we like when we buy necessities or luxuries has a great influence upon the growth of art. If we demand things that are fine and beautiful, and if we do without rather than accept what is commonplace or ugly, we may force the commercial market to supply the better designed things and we add to our own joy in life. . . .

"No matter what a man's or a woman's vocation or profession is, life will be fuller and richer for those who learn to appreciate art. A knowledge and understanding of art helps to make living itself an art." 2

V. APPENDIX

A. Bibliography

Collins, M. Rose, and Riley, Olive L. *Art Appreciation.*

### Table I

**SHOWING DISTRIBUTION OF TOTAL SCORES ON THE ART APPRECIATION TEST FOR CITY AND TOWNSHIP SCHOOLS**

<table>
<thead>
<tr>
<th>Intervals</th>
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</table>

**Mean = 74.7672**   **Mean = 64.1006**

**Difference in means = 10.6662**

**P.E. difference = 0.740334**

**Critical ratio = 12.40**

Chances are 100 in 100 that difference in favor of city schools is greater than zero.
TABLE II
SHOWING DIFFERENCE BETWEEN STUDENTS WHO HAD HAD ELEMENTARY SCHOOL ART AND THOSE WHO HAD NOT HAD ELEMENTARY SCHOOL ART

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Mean = 73.9033
Mean = 60.0909

Difference in means = 13.8124
P,E. difference = .7784
Critical ratio = 17.74

chances are 100 in 100 that difference in favor of those who had had elementary school art is greater than zero.
TABLE III
SHOWING COMPARISON OF EIGHTH GRADE STUDENTS WITH TWELFTH GRADE STUDENTS WHO HAVE NOT HAD SECONDARY SCHOOL ART

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Mean = 74.2581  Mean = 67.5

Difference in means = 6.7581
P.E. difference = .8559
Critical ratio = 7.90

Chances are 100 in 100 that difference in favor of 12th grade is greater than zero.
TABLE IV
SHOWING COMPARISON OF TWELFTH YEAR STUDENTS WHO HAVE NOT HAD SECONDARY SCHOOL ART WITH TWELFTH YEAR STUDENTS WHO HAVE HAD SECONDARY SCHOOL ART

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</thead>
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<td>Frequency</td>
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<tr>
<td>Totals</td>
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</table>

Mean = 82.3226  Mean = 74.2581

Difference in means = 8.0645

P.E. difference = 0.99573

Critical ratio = 8.09932

Chances are 100 in 100 that difference in favor of students with art is greater than zero.
### TABLE V

**SHOWING DIFFERENCE BETWEEN STUDENTS WHO HAD ATTENDED NO ART EXHIBITS AND THOSE WHO HAD ATTENDED ONE OR MORE ART EXHIBITS**

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<tr>
<td><strong>Mean</strong></td>
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**Difference in mean** = 12.8476

**P.E. difference** = .5665

**Critical ratio** = 22.69

Chances are 100 in 100 that difference in favor of those who had attended an art exhibit is greater than zero.