This document describes a study to assess the change in students' responses toward the visual arts as a result of their participation in an entrance level art course. The course was structured to provide the students with an understanding of art skills, a recognition of excellence in art objects, and knowledge of diversity of delivery through style and media. The students were provided with a forum to produce, criticize, and make judgments in the visual arts. Student responses toward art works representing diverse styles and techniques were assessed at the beginning and end of the school year. Written assignments and samples of the students' art works were reproduced and kept on file along with questions that the students raised about exhibitions held in the high school gallery. This bank of information formed a data base to explicate the results of the pre and post assessments. The evidence provided by the positive assessment of the students' written responses plus the consistency of the two assessment instruments' results, one of which asked if it was all right for work to look like this, and the other a ranking of three sets of prints, reinforced and supported the original hypothesis. Students became more receptive to all art forms and their critical and productive responses moved from the naive to the quasi-professional. The students were able to accept many diverse styles of art. They became more receptive to abstract, non-objective, and other non traditional art forms. A 14-item bibliography and samples of students' work are included. (DK)
A REQUIRED CARNEGIE UNIT IN THE ARTS - WHAT FORM WILL IT TAKE?

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Sponsored by the National Endowment for the Arts
and the United States Department of Education
# TABLE OF CONTENTS

Introductions ........................................................................................................ i
Acknowledgements ................................................................................................... iii

**BACKGROUND** ................................................................................................. 1
  Statement of Investigation ...................................................................................... 1
  Need for Study ......................................................................................................... 1
  Related Literature .................................................................................................. 2

**DESIGN OF STUDY** .......................................................................................... 4
  Setting ..................................................................................................................... 4
  Limitations ............................................................................................................... 5
  Documentation ......................................................................................................... 6
  Methodology ............................................................................................................ 7

**ANALYSIS OF DATA** ....................................................................................... 10
  Likert Attitude Assessment ..................................................................................... 11
  Ranking Assessment Raw Scores ............................................................................ 13
  Ranking Assessment Analysis ................................................................................ 14
  Raw Scores Assessment and Percentage Comparison ........................................... 15
  Summary .................................................................................................................. 17

**CONCLUSIONS** ................................................................................................. 18

**BIBLIOGRAPHY** ............................................................................................... 20

**TABLES**

Table 1 ..................................................................................................................... 11
Table 2 ..................................................................................................................... 12
Table 3 ..................................................................................................................... 13
Table 4 ..................................................................................................................... 14
Table 5 ..................................................................................................................... 16
Table 6 ..................................................................................................................... 17

**APPENDICES**

APPENDIX A: Excerpts of Students' Self-Portraits ............................................... 22
APPENDIX B: Samples of Students' Artwork ............................................................ 24
BACKGROUND

Statement of Investigation

"A Required Carnegie Unit in the Arts--What Form Will It Take?" assessed the change in students' responses toward the visual arts as a result of their participation in an entrance level art course. In many cases, this course may also be their last formal encounter with the visual arts. The course was structured to provide the students with an understanding of art skills, a recognition of excellence in art objects, and knowledge of diversity of delivery through style and media. The students were provided with a forum to produce, criticize, and make judgments in the visual arts. Student responses toward art works representing diverse styles and techniques were assessed at the beginning and end of the school year. Written assignments and samples of the students' art works were reproduced and kept on file along with questions that the students raised about exhibitions held in the high school gallery. A bank of information formed a data base to explicate the results of the pre- and post-assessments.

Need for Study

A trend in art education throughout the country is to require students to take one or more Carnegie units in the arts for high school graduation. The National Endowment for the Arts' report on arts education, Toward Civilization, notes that twenty-nine states have enacted high school graduation requirements that in some way include the arts. Twenty-seven of these states have enacted these requirements in just the past eight years (Toward Civilization, 1988:19). Because of this trend, one would believe the arts to be in better standing. Unless these art units are described and their values defended, many worthless, non-productive activities will be taught.
under the guise of art. The researcher's entrance level art course engages students in rigorous, demanding exercises in the production and criticism of art; historical references are used to reinforce understanding of the creative process. Research was directed to validate the presumption that students who take this course become more receptive to all art forms and that their critical and productive responses move from the naive to the quasi-professional.

Related Literature

After twenty-seven years' experience as a high school art teacher, the researcher believed that in order to give art courses the stature they deserve in the school curriculum, these courses had to be not just therapeutic and recreational, but rigorous and meaningful. This is not necessarily the practice or requirement in high schools where art curricula has not been modified for the past twenty years. William J. Bennett, former Secretary of Education, described educational fads:

I mean the kind of theories and practices that were introduced in the sixties and seventies as 'progressive education.' Schools were encouraged to become 'value free'; an emphasis on the basics was challenged in favor of the children's 'innate wisdom' in 'free' or 'open' settings; reliable methods of measuring achievement were jettisoned on the assumption that homework, tests, and grades were needlessly oppressive. (Discipline-Based Art Education, 1987:35)

Current attention is being directed to the necessary inclusion of the arts in every child's education, as attested to in Toward Civilization:

Very important, arts education is essential for all students, not just the gifted and talented...Just as knowledge of, and skills in, words are essential to functioning in society, so knowledge of, and skills in, nonverbal communication are essential. (1988:14)
Although arts educators are encouraged to see the trend of recognizing the importance of the arts requirement in the high school curriculum, some are equally discouraged to see that the content of these courses is, in many cases, unstructured studio-work for the talented, rather than courses designed to enable all students to expand their knowledge of and skills in the arts:

Art education programs that would educate toward increasing students' sophisticated understanding of adult, professional roles in the field would be justified much as science, music, mathematics, and other subject matters have used knowledge about professional roles in justifying their place in educational programs in the schools. (Greer, as cited in Dobbs, 1988:80)

The researcher believes that his course (Art I) at Bozeman Senior High School does change student responses from naive to more sophisticated. Although the researcher supports the discipline-based art education (DBAE) approach, he keeps history, criticism and aesthetics in supportive roles, with production as the focus.

Art production, one of the four disciplines of DBAE makes a primary contribution to the understanding of art. This is because the direct experience of creating art uniquely leads to certain insights into the many aspects of meaning conveyed in works of art. Learning about materials, acquiring techniques, gaining perceptual skills, and developing imagination through resolving the ambiguity inherent in the creative process give students insight into both their own work and the world as well. And in the processes necessary to develop and manipulate images in the production of art, we find avenues leading to a fuller understanding of all art--access to which may be foreclosed when learning is exclusively through the study of the works of others. (Smith, Ed., p.198)
DESIGN OF STUDY

Setting

Bozeman Senior High School is the only high school serving the rural community of Bozeman, Montana (population 27,000). Bozeman is located in the heart of the Gallatin Valley, ninety miles north of Yellowstone Park. Agriculture (winter wheat, cattle, sheep and dairy herds), higher education (Montana State University), and tourism (fishing, hunting and skiing) are the greatest contributors to the community's economic base. The citizens of Bozeman are moderate in their philosophical support of their school system, but very conservative in their financial support. The elected School Board reflects this conservatism. The Board supports the present system but does not aggressively pursue change and growth. The system seems to work, recently Bozeman Senior High School was cited by the United States Department of Education as one of the nation's top 218 high schools in its Secondary School Recognition Program. This was due, in large part, to the principal, Lou Gappmayer, who tried to maintain a faculty with diverse teaching styles in order to provide the students with a fairly stimulating educational environment.

Bozeman Senior High School boasts that over 65% of its graduates go on to college. There are not figures available as to the number of these that complete their college education. At the present time, student enrollment in grades 10, 11, and 12 is 962--the lowest enrollment since 1971. The racial/ethnic composition in percentages of total enrollment is: 1.3% American Indian; 1.07% Asian or Pacific Islander; .2% Hispanic; .4% Black (non-Hispanic); 97% White (non-Hispanic). The school's student population comes primarily from middle income families; only 6% of the students come from lower income families (this figure is derived from the number of families who qualify for assistance from the school lunch program).
The school operates on a seven-period day. Students are required to take at least five courses in order to remain in school, but most take six. A course in fine arts is required of all students for graduation. Music, fine art, photography and humanities are all courses that fulfill this requirement.

An extracurricular activity important to the school, and to the art program in particular, is the Art Club (the researcher serves as sponsor). The club operates a gallery that is open to the public; the club and the gallery have become important parts of the art scene in the community. There is an opening approximately every five weeks. The club members select the exhibitions through portfolio reviews. The artists exhibited often volunteer to spend a day with the art classes discussing their work and answering questions. The club also has acquired, through purchases and donations, a fine art collection that it shares with the students, faculty and public by permanently hanging it in the halls of the school. There is an ongoing artist-in-the-school program through which the students can have a dialogue with professional artists in the community. It is through this setting and the sequential course of study in the visual arts that students begin to work and think in a manner that approaches that of professionals in the field of art.

Limitations

The school principal buffers his teachers from too much institutional red tape, but a principal often has to enforce policy even when he disagrees with it. Therefore, teachers in the school had to deal with ever-expanding class sizes. The class used in this research started with thirty-one students, but because seniors comprised a large portion of the class, seven were lost to early graduation and four to moving and dropping; seven transferred in, but were not included in the research. Another frustration in teaching involved scheduling. Because of teaching loads, scheduling common preparation periods with fellow art teachers was difficult; therefore, professional interaction was minimal. Finally, the researcher felt that a
block of time built into his schedule would have facilitated this research project. It was difficult for this dedicated full-time teacher to find the time and energy necessary to address research of this magnitude.

**Documentation**

Research began with an art attitude assessment based on the students' viewing and responding to slides shown in class. They then drew from still life and landscape with no limitations except time. The results were photocopied and saved in the students' logs to be compared to work they would do during the course of the year. During the school year, the students were directed to ask questions of the artists who were exhibiting in the gallery; these questions were written and placed in the students' logs. During a portrait unit, the students were required to complete a written self-portrait; this too was logged. The self-portraits were so insightful that the researcher wished he had received them earlier in the year. The researcher also photocopied at least three of each student's projects, and photographed seven of each student's projects dealing with color and one each dealing in 3/D; these, plus the post-assessment, were included in the students' logs.

The importance of interaction among colleagues manifested itself during this project. This research parallels work done by Barbara Fehrs-Rampolla in Holmdel, New Jersey and Ruth Marcus in New York City. The three-teacher collaboration began as a result of an agreement to share insights and information while developing the research topics at the National Arts Education Research Center. The assessment instrument used in this project was a product of this collaboration. Having this common tool to work with, having some similar anticipated outcomes in our projects, and sharing information and ideas through the year created a collegial bond that eased much of the frustration caused by the physical isolation from the Center.
Methodology

At the beginning of the school year, students were informed that they would occasionally be asked to make responses on a questionnaire. They were given nothing more than directions so as not to prejudice them in any way. The assessment instrument was developed by the researchers, Ruth Marcus and Barbara Fehrs-Rampolla. Each researcher used the instrument independently and, through an ongoing telephone dialogue, shared some of the problems encountered with the instrument.

Early in the school year, the students were shown sixteen slides. Accompanying each slide were two statements and an associated five-point Likert scale on which the students were asked to respond. This same assessment was repeated toward the end of the year. Two examples are shown below.

Slide 1

1. "It's all right for a work to look like this."

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

2. "I like this work."

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

The statements (1 and 2) were reversed for each successive slide.
The slide selection was as follows:

1. Mona Lisa
2. Marilyn Monroe
3. Mask
4. The Night Watch
5. Les Demoiselles D'Avignon
6. Two Ambiguous Figures
7. Nude Descending a Staircase
8. The Great Wave
9. Stone City, Iowa
10. Still Life with Pipe
11. Guitar with Sheet of Music
12. Guernica
13. Coronation of Josephine
14. Black Abstraction
15. Seme
16. Chief

Leonardo DaVinci
Andy Warhol
Ba-Kuba, Congo
Rembrandt
Pablo Picasso
Max Ernst
Marcel Duchamp
Hokusai
Grant Wood
J.B.S. Chardin
Juan Gris
Pablo Picasso
Jacques Louis David
Georgia O'Keeffe
Stuart Davis
Franz Kline

This assessment was used to determine how the art course affected the students':

- **tastes** toward different styles of art
- **attitudes** toward accepting different styles of art.

Another part of the assessment, given at both the beginning and end of the year, consisted of three sets of five reproductions to be ranked by the students from most positive response to least positive. Each set contained one traditional realistic work, one traditional work from Asia, and three pieces selected to represent general art movements from Impressionism to the present. The students were then asked to write without restriction for ten minutes about the work ranked either most or least positively liked. They were also told to notate the time used if less than the allotted ten minutes or to indicate that they needed more time if they had not finished in the allotted ten minutes. This was given over three consecutive days at the
beginning of the year, and the entire three sets were given in one period at the end of the year. The sets of reproductions are listed below.

Set 1
*In the Mountains*
*Cape Martin*
*Village*
*Forest with Squirrel*
*Blue Atmosphere*

Albert Bierstadt
Claude Monet
Saito
Franz Marc
Helen Frankenthaler

Set 2
*Madame de Sonnones*
*Marilyn Monroe*
*Samuri*
*Purple Robe*
*Portrait of a Woman*

J.A.D. Ingres
Andy Warhol
Tokugawa
Henri Matisse
Pablo Picasso

Set 3
*Helene Fourment*
*French Six Day Bicycle Rider*
*Card Players*
*Dancing Scene*
*Berlin Street Scene*

Peter Paul Rubens
Edward Hopper
Paul Cezanne
Tokugawa
Ernst Kirchner

The assessment instruments actually augmented the experiences the students confronted while taking the course. During the course, the researcher avoided speaking directly about any of the specific slides or prints included in the instrument so as not to coax particular responses from the students.
ANALYSIS OF DATA

The researcher's hypothesis contended that after taking the course, students would be able to accept many diverse styles of art, in particular, they would be more receptive to abstract, non-objective, and other non-traditional art forms. Additionally, the students would be able to make more sophisticated aesthetic, visual, and verbal responses that approach the responses of the quasi-professional artist.

The Likert scale is used to measure favorable or unfavorable attitudes toward statements. Since attitudes and changes in attitude were a precise part of what this research addressed, the Likert scale proved to be the best scoring device for the set of 16 slides. The scoring of a Likert scale is based on assigning weights from 1 to 5 for each position on the scale. Favorable statements are given the highest weight (5) and unfavorable statements are given the lowest (1), with a varying range in between. An individual's total score is the sum of the scores on all items, with the higher score indicating a more favorable attitude. In interpreting the results of attitude scales, it is important to remember that these are verbal expressions of feelings and opinions. By comparing the results of the same study administered at both the beginning and the end of the Art I course, the changes in attitudes should be apparent. Attitudes are often important instructional outcomes in their own right (Gronlund, 1985, p. 418).

Analysis shows that five of the reproductions elicited a 32 point increase in attitude response toward the statement, "I like this work."
Likert Attitude Assessment

Table 1

Analysis shows that eleven of the reproductions elicited a 62 point decrease in attitude response toward the statement, "I like this work."

In the Likert assessment on the following page, the students' responses to the statement, "I like this work," changed over the duration of the course but in no easily observable pattern. This was not disconcerting; in fact, it is not the art teacher's role to become a tastemaker. A student's likes and dislikes do not make works of art good or bad. The purpose was not to try to change their taste, but rather heighten their understanding of art.

Table 1.

"I like this work."

<table>
<thead>
<tr>
<th></th>
<th>Pre 9/88</th>
<th>Post 5/89</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mona Lisa</td>
<td>67</td>
<td>73</td>
<td>+6</td>
</tr>
<tr>
<td>2. Marilyn Monroe</td>
<td>63</td>
<td>58</td>
<td>-5</td>
</tr>
<tr>
<td>3. Mask</td>
<td>66</td>
<td>62</td>
<td>-4</td>
</tr>
<tr>
<td>4. The Night Watch</td>
<td>75</td>
<td>65</td>
<td>-10</td>
</tr>
<tr>
<td>5. Les Demoiselles D'Avignon</td>
<td>54</td>
<td>48</td>
<td>-6</td>
</tr>
<tr>
<td>6. Two Ambiguous Figures</td>
<td>62</td>
<td>56</td>
<td>-6</td>
</tr>
<tr>
<td>7. Nude Descending a Staircase</td>
<td>55</td>
<td>64</td>
<td>+9</td>
</tr>
<tr>
<td>8. The Great Wave</td>
<td>83</td>
<td>82</td>
<td>-1</td>
</tr>
<tr>
<td>9. Stone City, Iowa</td>
<td>78</td>
<td>73</td>
<td>-5</td>
</tr>
<tr>
<td>10. Still Life with Pipe</td>
<td>76</td>
<td>77</td>
<td>+1</td>
</tr>
<tr>
<td>11. Guitar with Sheet Music</td>
<td>57</td>
<td>53</td>
<td>-4</td>
</tr>
<tr>
<td>12. Guernica</td>
<td>70</td>
<td>58</td>
<td>-12</td>
</tr>
<tr>
<td>13. Coronation of Josephine</td>
<td>72</td>
<td>68</td>
<td>-4</td>
</tr>
<tr>
<td>14. Black Abstraction</td>
<td>74</td>
<td>76</td>
<td>+2</td>
</tr>
<tr>
<td>15. Seme</td>
<td>52</td>
<td>47</td>
<td>-5</td>
</tr>
<tr>
<td>16. Chief</td>
<td>47</td>
<td>61</td>
<td>+14</td>
</tr>
</tbody>
</table>
Table 2
In the following Likert assessment the students' responses to the statement, "It's all right for a work of art to look like this," changed dramatically over the duration of the course into an easily observable pattern. With the exception of their responses to Guernica, the range of change of students' responses to fifteen of the sixteen reproductions was from +2 to +14 points. The results of this assessment show that the students changed their attitudes toward the acceptance of art of varied styles.

<table>
<thead>
<tr>
<th></th>
<th>Pre 9/88</th>
<th>Post 5/89</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mona Lisa</td>
<td>82</td>
<td>91</td>
<td>+9</td>
</tr>
<tr>
<td>2. Marilyn Monroe</td>
<td>74</td>
<td>88</td>
<td>+14</td>
</tr>
<tr>
<td>3. Mask</td>
<td>77</td>
<td>82</td>
<td>+5</td>
</tr>
<tr>
<td>4. The Night Watch</td>
<td>86</td>
<td>88</td>
<td>+2</td>
</tr>
<tr>
<td>5. Les Demoiselles D'Avignon</td>
<td>77</td>
<td>80</td>
<td>+3</td>
</tr>
<tr>
<td>6. Two Ambiguous Figures</td>
<td>73</td>
<td>81</td>
<td>+8</td>
</tr>
<tr>
<td>7. Nude Descending a Staircase</td>
<td>75</td>
<td>82</td>
<td>+7</td>
</tr>
<tr>
<td>8. The Great Wave</td>
<td>87</td>
<td>89</td>
<td>+2</td>
</tr>
<tr>
<td>9. Stone City, Iowa</td>
<td>82</td>
<td>88</td>
<td>+6</td>
</tr>
<tr>
<td>10. Still Life with Pipe</td>
<td>81</td>
<td>94</td>
<td>+13</td>
</tr>
<tr>
<td>11. Guitar with Sheet Music</td>
<td>70</td>
<td>78</td>
<td>+8</td>
</tr>
<tr>
<td>12. Guernica</td>
<td>82</td>
<td>80</td>
<td>-2</td>
</tr>
<tr>
<td>13. Coronation of Josephine</td>
<td>83</td>
<td>89</td>
<td>+6</td>
</tr>
<tr>
<td>14. Black Abstraction</td>
<td>79</td>
<td>85</td>
<td>+6</td>
</tr>
<tr>
<td>15. Seme</td>
<td>72</td>
<td>76</td>
<td>+4</td>
</tr>
<tr>
<td>16. Chief</td>
<td>65</td>
<td>76</td>
<td>+11</td>
</tr>
</tbody>
</table>
Ranking Assessment Raw Scores

Table 3
In the second part of the assessment, the students ranked five paintings in three different sets from the most positive response to the least positive. This assessment was given on three consecutive days in September, 1988 and then repeated at the end of the course in May, 1989. In May, all three sets were ranked by the students on the same day. From the analysis of the responses, any changes in the students' attitudes toward abstract, non-objective or non-traditional art forms should be apparent.

<table>
<thead>
<tr>
<th>Set 1</th>
<th>1988 (Pre-test)</th>
<th>1989 (Post-test)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>In the Mountains</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Cape Martin</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Village</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Forest with Squirrel</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Blue Atmosphere</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Set 2</th>
<th>1988 (Pre-test)</th>
<th>1989 (Post-test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madame de Sonnones</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Marilyn Monroe</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Samuri</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Purple Robe</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Portrait of a Woman</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Set 3</th>
<th>1988 (Pre-test)</th>
<th>1989 (Post-test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helene Fourment</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Fr. 6 Day Bicycle Rider</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Card Players</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Dancing Scene</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Berlin Street Scene</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
Ranking Assessment Analysis

Table 4
In order to analyze the change in students' responses, the responses were weighted in the ranking assessment as in a Likert scale with the most positive responses assigned a score of 5 and the least positive, 1.

In analyzing the results of the ranking assessment instrument, it was found that the three reproductions of realistic paintings, In the Mountains, Madame de Sonnones and Helene Fourment lost points in students' responses, while all but one of the reproductions done since the Impressionists gained points. This was a strong reinforcement of the original hypothesis that the students would become more receptive to abstract, non-objective and non-traditional art styles. It was surprising to see that the Asian art also lost points. This was not the case in the first assessment of the slides where The Great Wave, by Hokusai, gained two points. The result of this finding was attributed to the fact that the study of art of other cultures was recently introduced into Art I classes. The researcher was not as versed on the subject as he was on the traditional Western European and American art forms and cultures.

<table>
<thead>
<tr>
<th>Set 1 (Landscapes)</th>
<th>Pre-test 1988</th>
<th>Post-test 1989</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the Mountains</td>
<td>77</td>
<td>66</td>
<td>-11</td>
</tr>
<tr>
<td>Cape Martin</td>
<td>54</td>
<td>58</td>
<td>+4</td>
</tr>
<tr>
<td>Village</td>
<td>54</td>
<td>42</td>
<td>-12</td>
</tr>
<tr>
<td>Forest with Squirrel</td>
<td>39</td>
<td>54</td>
<td>+15</td>
</tr>
<tr>
<td>Blue Atmosphere</td>
<td>31</td>
<td>34</td>
<td>+3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Set 2 (Portraits)</th>
<th>Pre-test 1988</th>
<th>Post-test 1989</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madame de Sonnones</td>
<td>76</td>
<td>70</td>
<td>-06</td>
</tr>
<tr>
<td>Marilyn Monroe</td>
<td>55</td>
<td>68</td>
<td>+13</td>
</tr>
<tr>
<td>Samuri</td>
<td>64</td>
<td>45</td>
<td>-19</td>
</tr>
<tr>
<td>Purple Robe</td>
<td>51</td>
<td>53</td>
<td>+2</td>
</tr>
<tr>
<td>Portrait of a Woman</td>
<td>34</td>
<td>43</td>
<td>+9</td>
</tr>
</tbody>
</table>
### Table 4. (cont.)

<table>
<thead>
<tr>
<th>Set 3 (Groups in Various Settings)</th>
<th>Pre-test 1988</th>
<th>Post-test 1989</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Helen Fourment</em></td>
<td>59</td>
<td>58</td>
<td>-1</td>
</tr>
<tr>
<td><em>Fr. Six Day Bicycle Rider</em></td>
<td>77</td>
<td>64</td>
<td>-13</td>
</tr>
<tr>
<td><em>Card Players</em></td>
<td>74</td>
<td>80</td>
<td>+6</td>
</tr>
<tr>
<td><em>Dancing Scene</em></td>
<td>42</td>
<td>32</td>
<td>-10</td>
</tr>
<tr>
<td><em>Berlin Street Scene</em></td>
<td>38</td>
<td>46</td>
<td>+8</td>
</tr>
</tbody>
</table>

### Raw Scores Assessment and Percentage Comparison

**Tables 5 and 6**

The third assessment instrument was the student's timed (ten minute) written responses to reproductions of works of art. On three consecutive school days in September, 1988, the students were presented with different sets of prints (the same prints and the same time frame as the ranking assessment). From each set of prints, the students were told to choose one and respond to it in writing for ten minutes. This assessment was repeated in May, 1989, and was essentially the same except that the students responded to all three sets on the same day. In order to assess the student responses, the researcher used the criteria developed by the National Assessment of Educational Progress (NAEP), as modified by Barbara Fehrs-Rampolla. In her modification, Fehrs-Rampolla reduced the number of responses from eight to five. Interesting comparisons of these results can be made by using this model. The five classifications are listed below--

- **Modal Character:** The response describes the overall mood or emotional qualities of the work.
- **Formal Relationships:** The response describes the design, structure or composition.
• *Style*: The response characterizes the style, such as abstract, modern or impressionistic.

• *Technique, tools, media*: The response describes brushstrokes, media or processes.

• *Elements of Design*: The response characterizes the colors, textures, shapes, lines or values in the work.

An acceptable response was assessed according to the NAEP criteria when students employed:

- three of the criteria above, and when one response was modal character formal/relational,
- three different formal/relational responses or
- two formal/relational responses and one other classification listed above.

Tables 5 and 6 contain the raw scores compiled from the student responses and the scores' conversions to percentages, respectively.

<table>
<thead>
<tr>
<th>Table 5.</th>
<th>Pre-test 1988</th>
<th>Post-test 1989</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal Character</td>
<td>235</td>
<td>147</td>
<td>-88</td>
</tr>
<tr>
<td>Formal Relationships</td>
<td>17</td>
<td>32</td>
<td>+15</td>
</tr>
<tr>
<td>Style</td>
<td>21</td>
<td>34</td>
<td>+13</td>
</tr>
<tr>
<td>Technique</td>
<td>9</td>
<td>21</td>
<td>+12</td>
</tr>
<tr>
<td>Elements of Design</td>
<td>58</td>
<td>57</td>
<td>-1</td>
</tr>
<tr>
<td><em>Acceptable Responses</em></td>
<td>18</td>
<td>31</td>
<td>+13</td>
</tr>
<tr>
<td><em>Unacceptable Responses</em></td>
<td>40</td>
<td>27</td>
<td>-13</td>
</tr>
</tbody>
</table>
Table 6.

<table>
<thead>
<tr>
<th></th>
<th>Pre-test 1988</th>
<th>Post-test 1989</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal Character</td>
<td>69</td>
<td>50.5</td>
<td>-18.5</td>
</tr>
<tr>
<td>Formal Relationships</td>
<td>5</td>
<td>11</td>
<td>+6</td>
</tr>
<tr>
<td>Style</td>
<td>6</td>
<td>21</td>
<td>+6</td>
</tr>
<tr>
<td>Technique</td>
<td>3</td>
<td>7</td>
<td>+4</td>
</tr>
<tr>
<td>Elements of Design</td>
<td>17</td>
<td>19.5</td>
<td>+2.5</td>
</tr>
<tr>
<td>Acceptable Responses</td>
<td>31</td>
<td>53.5</td>
<td>+22.5</td>
</tr>
<tr>
<td>Unacceptable Responses</td>
<td>69</td>
<td>46.5</td>
<td>-22.5</td>
</tr>
</tbody>
</table>

In analyzing the differences in student responses from September, 1988 to May, 1989, the total 1989 responses were down 14.5% from the total 1988 responses. All of that decrease came from the modal character responses; the other four response totals increased. More importantly, the percentage of acceptable responses made in the spring of 1989 was 53.5% of the total responses, or 22.5% greater than the percentage recorded of acceptable responses made in the fall of 1988. This reinforces the original hypothesis that students would be able to make more sophisticated, aesthetic, and verbal responses after taking Art I.

Summary

The evidence provided by the positive assessment of the students' written responses plus the consistency of the two assessment instruments' results (the Likert assessment "It's all right for work to look like this" and the Likert assessment of the ranking of three sets of prints) reinforced and supported the researcher's original hypothesis: students who take this course will become more receptive to all art forms and their critical and productive responses will move from the naive to the quasi-professional.
CONCLUSIONS

In order to be effective as a teacher, the researcher found that he must be totally in command of the body of information taught. To hesitate is to break the thread of attention and energy, and this is conveyed to the students. That was the case in the introduction of Far Eastern art in the Art I course, as indicated by the weak responses toward the reproductions of Asian art in the Likert assessment of the phrase, "It's all right for a work to look like this."

Examining more systematically the result of students' work gives insights into teaching. A phenomenon encountered while collecting student art work for assessment in this research project was the interest the students had in the photographing of their art. They were almost always on time with their assignments and if for some reason they were late, they would bring their work in and ask if the researcher wanted to photograph it. In their eyes, this activity gave much more importance to their work. The samples of student work collected could be the focus of further investigation into the original topic.

The researcher experimented in some other classes with the manner in which questions were asked. In one instance, instead of just asking the students to respond to a reproduction of art, they were asked to compare and contrast two reproductions. The result was gratifying; the students expressed themselves much more fluently when they wrote during this activity even though they had the same time constraints. A research topic could be set up that would elicit different qualities of responses: responses to a single reproduction and responses comparing two reproductions.

A research project like this required large blocks of time in which to work. As mentioned earlier, the researcher had difficulty finding as much energy as the research deserved. Factors that made it possible to complete the work were the support, understanding and trust of the Center staff, the
close contact maintained with Barbara Fehrs-Rampolla, who shared her frustrations and successes, and the revitalization from the reconvening last spring of some Center staff and colleagues at the National Art Education Association's conference in Washington, D.C. Collaborations originating in the summer at the Center's Institute should be encouraged early in the next round of research done at the Center.
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APPENDIX A

EXCERPTS OF STUDENTS' SELF-PORTRAITS

The students wrote illuminating self-portraits which presented a view of their external worlds as well as their dreams, anxieties, philosophies and limitations. Most of the students were completely candid; one girl wrote of her pregnancy, a fact still unknown by the school community. Following are some exceptional excerpts from these written self-portraits.

"Well I personally am not too preoccupied with how mankind arrived on this planet, but what mankind, and more specifically, what I am doing now that I own this precious gift titled life. The main incident that affect my life occurred when a soulmate of mine died in a freak car accident at the age of sixteen. He had worked in Y.C.C. with me and had taught me a great deal about how to love to learn life. His death only compounded the lesson. I try to live each minute now, because life is not guaranteed."

"Coach Smith made me realize that if you want something bad enough you can get it. All it takes is that little extra bit of desire. I will never forget what it felt like to earn my right to play basketball. The things he taught me about life I will remember forever. This has been one of the most special and exciting experiences of my whole life. After basketball was over, I realized that setting goals pertains to everyday life as well."

"I have always been a dreamer, but being a dreamer in this school system gives you the 'great' labels. I have been called an idiot because I see some ways to improve this world. I have been called a rebel because I don't conform to those things that make me uncomfortable. Once I was told that I was 'very cosmopolitan.'"

"I live with my mom and step-father even though it's a weird place to live. My step-father's half-blind and has brain cancer and on top of that, plays his guitar until someone goes out of their mind. It's kind of nice to have a hard home life because when you're on your own it may seem a little easier."

"I'm also a believer. I mean if somebody tells me something, and it's a lie, but they say it's the truth, I believe it's the truth...Sometimes I ask myself that time is going so fast. I mean I have already lived one fifth of my life, I can't imagine that times are going so fast. But I try to see and get to know so much as possible, or as somebody said, 'Live strong, die young'. I don't think I'm charming or popular, just a child/woman who is boring. But am I doing anything about it? Yes and no, but what can you do?"

"I see myself as a mixed up jumble of contradictions. I believe in a personal god who is the sum, not the creator, of all things. I believe that we are all divine but exist on just one of many planes of reality. The Universe is a mobius strip, folding in on itself and there is a heck of a lot going on we don't let ourselves see. I love life, good or bad. Every experience is worthwhile. There is no pure evil or pure good. Pain merely gives meaning to pleasure, as work gives meaning to achievement...I want more than most people, but cannot find anything to be passionate about."
"Right brained: if there was ever a word or phrase to describe myself that would have to be it. I think that is the only side of my brain I have because that is all I use. I like to write, create and do original things. Although I am mainly right sided I still use logic and am very good at reasoning but unlike most logical thinking people I do not allow myself to get trapped in that logic and let it rule my life. I am a very independent person, I like people but I need my space to do what I want to do. I see this as a threat to my life but I also see it as a bonus."

"I had always been a fairly good artist by reputation but I hated to put in the time required to create truly exceptional art. I would doodle and that was the extent of my commitment pretty much. With Mrs. Cozyrs and her class, *Eye and I*, I first began to experience my dormant powers of observation to their fullest. From then on Art was no longer a class but an inseparable part of my life...My notion of how the universe works became, and still is, the thing which fills the moments of every day. God, my Geometry of Divinity, does not exist in a set way...It encompasses all of the universe, it is so simple and peaceful that it cannot be as limiting as man has interpreted it to be."

"I got kicked off the basketball team for fighting. A girl pulled my hair so I sat on her and pulled her hair and scratched her face. She gave me a bloody nose so I bled on her and ruined her clothes. My best friend was a dope addict. She would hide it in her P.E. locker to avoid locker searches...An incidental influence on me has been getting pregnant. I'm getting fatter. I hate the father but I like the baby. It swims."
APPENDIX B

SAMPLES OF STUDENTS' ARTWORK

It is impossible, in a report such as this, to reproduce accurate samples of student artwork—especially multicolor and/or three dimensional pieces. However, the few examples included below demonstrate various developments in the students' artistic responses.

Each sample shows:

(a) the preliminary drawing from the first day of class
   (no instruction)

(b) the preliminary drawing for wood block print self-portraits
   (five months later)

(c) the final wood block print.